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CONSERVATION CHALLENGES AND OPPORTUNITIES OF GIBE
SHELEKO NATIONAL PARK IN ABESHGE WOREDA, GURAGHE
ZONE SOUTHWESTERN ETHIOPIA

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Filagot Haile Mani

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Filagot Haile Mani

Major Advisor: Yisak Bekele (Ph.D)

Co-Advisor: Gifawesen Markos (MA)

NOVEMBER, 2023

WOLKITE, ETHIOPIA

APPROVAL SHEET

WOLKITE UNIVERSITY

SCHOOL OF GRADUATE STUDIES

We hereby certify that we have read and evaluated this thesis titled “Conservation Challenges and Opportunities of Gibe Sheleko National Park in Abeshge Woreda, Gurage Zone Southwestern Ethiopia” prepared under our guidance by Filagot Haile Mani. We recommend that the thesis will be submitted as fulfilling the requirements for the award of a MSc. Degree in development planning and management.

_____	_____	_____
Major Advisor	Signature	Date
_____	_____	_____
Co-Advisor	Signature	Date

As members of the Board of Examiners of the Master of Art thesis open defense examination, we have read and evaluated this thesis prepared by **Filagot Haile Mani** and examined the candidate. We hereby certify that the thesis is accepted for fulfilling the requirements for the award of the degree of Master of Art (M.A) in Development Planning & Management.

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Abstract

This study aims to assess the conservation challenges and opportunities of Gibe Sheleko National Park. The study utilizes a descriptive research design and combines qualitative and quantitative research approaches to collect primary data through focus group discussions, key informant interviews, surveys, and observations. The study's subjects consist of 123 households selected using a simple random selection method. This study utilized both quantitative and qualitative approaches to analyze data using the SPSS statistical package. Qualitative data were systematically condensed and summarized, and discussed alongside descriptive figures of quantitative data analysis. In addition, the finding results indicate a significant decline in biodiversity, including populations of hippopotamus, lion, and endemic bird species in Gibe Sheleko National Park. The decline in mammal and bird wildlife populations is negatively affecting the ecosystem function through degradation of soil micro and macro biota. The major conservation challenges identified in this study include expansion of farmland, livestock grazing, wildfire, and deforestation.

Key Words: *Conservation, Challenges, Opportunities, Protection, and Degradation*

ABBREVIATIONS AND ACRONYMS

CBC- Community Based Conservation

GO- Governmental Organization

IUCN - International Union for Conservation of Nature

NGO-Non-Governmental Organization

PA - Protected Areas

PAs - Protected Areas

SME-Simien Mountains Ecosystem

SNNP- Southern Nation Nationality People

UNEP-WCMC- United Nations Environment Program World Conservation Monitoring
Centre

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Protected areas (PAs) cover about 13% of the land (Kenney et al. 2012), however their coverage of the global biodiversity has been questioned (McKinney 2002). As a result there has been continuous efforts to expansion of number of PAs and their biodiversity globally (Rodrigues et al. 2004). Even though, there were significant efforts to expand PAs globally, studies reported critical conservation challenges for existing PAs due to increasing population, livestock and the efforts of humans to satisfy these needs. Some of the common human activities caused conservation challenges in PAs include grazing, agriculture, demand for fuel wood, urban expansion and settlements expansions (AG, RE, and A n.d.; Geldmann et al. 2019; K, KH, and SE n.d.; Kenney et al. 2012; TM n.d.; Wondimagegn 2020). In similar way to global scenario, the number of protected areas has been increasing over the last 25 years in developing countries (Geldmann et al. 2019).

Ethiopia as one of the developing countries in the horn of Africa is endowed with unique topography and biological diversity (Abunie, 2000). Protected areas (PAs) are essential to conservation and protection of these biodiversity. Among the protected areas national parks and wildlife sanctuaries play a vital role in biodiversity conservation (Yalden and Largen, 1992). The country had two protected areas before 1970. However, currently the number of PAs in the country are 104 covering 200,074 km² of territorial land (UNEP-WCMC & IUCN, 2019h). The significances of national parks in Ethiopia was reviewed by various researches (Abebe and Bekele 2018; Kiros and Bekele 2021; Mossie, Adem, and Aynalem n.d.). These researches emphasized the economic and conservation benefits. However, some argued economic growth from tourism activity (conservation of national parks) is not significant (Abebe and Bekele 2018; Kiros and Bekele 2021).

Even though, there is encouraging efforts to increase the number of protected areas, there is severe anthropogenic pressure on the protected areas recently. The major human activities that affect PAs include increasing energy and food demand to support overwhelmingly increasing population and livestock number in the country. The expansion

of agricultural land by investors and farmers, fire wood collection and charcoal production, hunting, and urbanizations are some of the factors that severely threaten. Additionally, lack and implementations of various policies, proclamations, legal frameworks and guidelines, lack of conservation strategies and lack of national framework to implement the conservation strategies became a big challenge. Furthermore, poor approaches, lack of awareness, and poor community participation in roles and the management of PAs for sustainable ecosystem functions (Reddy, 2014; Murray, and Admasu, 2013; Wilfred, 2010).

Currently, the country has established several PAs; however, there are major challenges that affect the conservation of PAs in Ethiopia. According to Wondimagegn, 2020, most of PAs in the country are facing many challenges such as: human encroachments, habitat fragmentation and losses, illegal hunting and poaching, lack of policy, wildfire, climate change and exotic species. Hence, this study focuses on assessing conservation challenges and opportunities of National Parks by taking Gibe Sheleko National Park as its unit of analysis.

1.2 Statement of the problem

Protected areas support the sustaining and conservation of the major biodiversity throughout the world (Rodrigues et al. 2004). Likewise, Ethiopia's protected areas are established to conserve the biodiversity, to ensure sustainable development, and to mitigate climate change impacts (Young, 2012). Protected areas such as national parks in the country have a significant role in conserving biodiversity. However, these areas are usually undervalued and are under threat from population growth and the increasing human need (Zerga, 2015). Ethiopia has increased challenge to protect biodiversity in these areas as poverty put more pressure on the biodiversity. Therefore, the officially protected areas are often still utilized for traditional livelihood support. Since the rural communities were already settled there before National Parks were decreed as protected areas i.e. especially for new parks, restricting the communities' access to resources (without compensation) has become a difficult task. An effective management practice of protected areas is one of the best methods to achieve nature conservation in a given ecosystem (Amare, 2015) which

requires an understanding of major factors that affect both the conservation and management of National Parks in Ethiopia.

Among the wildlife threatening factors, human-wildlife conflict is set as a serious problem of many National Parks of Ethiopia (Mojo et al., 2014, Megaze et al., 2017). This conflict usually happens when the needs of the wild fauna are hindered by the local community or when human properties are lost or damaged due to the existing wildlife species (Yihune et al., 2009). The level of the conflict depends upon the species richness, population size and status of the hazardous wild animals, and proximate to the wildlife habitats (Yihune et al., 2009). In Ethiopia, crop raiding, livestock predation, occasionally communicable diseases and human injury or deaths are the main causes of human-wildlife conflict (Yihune et al., 2009, Megaze et al., 2017). Increasing human-wildlife conflict in or around protected areas is mainly related with the declining or modification of other natural habitats and/or increasing of human settlement and agricultural encroachments into the protected areas (Berihun et al., 2016, Megaze et al., 2017). Human-wildlife conflict causes a significant amount of crop, livestock and wild animal losses, and occasionally leads to human injuries and death (Megaze et al., 2017). In some areas, it also causes socio-economic impacts leading to unwanted shifting cultivation, human energy and time costs and failure of other planned activities. For example, children and their parents spent time in agricultural crops and livestock guarding instead of going to school and carrying out other duties (Mojo et al., 2014).

In addition, human settlement, illegal fishing, forest logging, infrastructure construction, overgrazing, and the wild fire were some of the drivers mentioned in various studies (Kiros and Bekele 2021). Studies in various regions reported many challenges that threaten the biodiversity and ecosystems of protected areas. For instance, Anaya and Espirito (2018) stated the emergence of socio-environmental conflicts involving the creation of PAs in Brazil. Their study reported the impacts of exclusions of several groups from their traditional territories as defined “conservation refuges”. Moreover, many authors have addressed such conflicts from the perspective of the environmental justice paradigm, which focuses on the power relations over the natural resources, and on environmental inequalities (Anaya and Espirito-Santo 2018; Andrade and Rhodes 2012; Baynham-Herd

et al. 2018; RD Ayling 1997). In developing countries, social struggles are usually caused by environmental degradation. The restrictions on the population's access to natural resources without fair financial compensation or resettlement of affected communities can cause severe damage to community participation in natural resource management and sustainable conservation of protected areas (Anaya and Espírito-Santo 2018; Anon 2022; Dudley and Stolton 2010; Tuanmu et al. 2016; Vieira et al. 2018).

Similarly, Gibe Sheleko national park has many conservation challenges. According to Hailu et al. (2018), currently more than 50% of the area of Gibe Sheleko National Park is covered with bush and shrub vegetation types due to the decline of big trees. This may have a great impact on the existing wildlife species. It may also affect the ecotourism development of the region and Ethiopia in general. Moreover, according to Mojo et al. (2014), human-wildlife conflict particularly crop raiding has been increasing from time to time around Gibe Sheleko National Park in ChehaWoreda, Gurage Zone.

The park has also been exposed to severe pressure from anthropogenic activities such as fire wood collection, farming, over exploitation of natural resources, bush fire by the investors and farmers around the park, charcoal production and wild animals that threaten their existence and sustainability. Furthermore, the recent activities towards establishing mining in the park add further challenges to conservation needs and sustainability of the park. In addition, poor strategies and policies coupled with limited community participation in conservation practices have been observed in this park which in turn affected biodiversity. Even though, there has been fragmented efforts to find conservation challenges and opportunities in the park, there is huge knowledge gap to device appropriate management policies and strategies. As an effective management practice of PA is needed to harmonize nature conservation in the park. These are some of the reasons that need more research that investigates conservation challenges and opportunities of the park. So, this research is designed to find the major conservation challenges and opportunities of Gibe Sheleko National Park.

1.3 Research questions

- ✓ What is the status of the park regarding its protection rank currently?

- ✓ What are the conservation opportunities of the park?
- ✓ What are the conservation challenges of the park?

1.4 Objective of the study

1.4.1 General objective

The general objective of this study is to assess the conservation challenges and opportunities of Gibe Sheleko National Park

1.4.2 Specific Objectives

The study mainly focused on the following major specific objectives

- ✓ To assess the current status of the park in terms of protection.
- ✓ To assess conservation challenges of Gibe Sheleko National Park.
- ✓ To assess conservation opportunities of Gibe Sheleko National Park.

1.5 Significance of the study

The research work focuses on factors that affect conservation of Gibe Sheleko National Park. Therefore, the significance of this study is to create awareness and provide insight to the local people and the stakeholders about how to preserve the park. It also adds knowledge to parks conservation at various levels, provide information for policy makers, it could serve as an important resource for those who want to pursue similar studies, provide insight into future management and sustainable conservation of the park and similar parks in the country.

1.6 Scope of the study

Due to budgetary and time limitations, thematically the study was limited to assess the conservation challenges and opportunities of Gibe Sheleko National Park. Spatially the study was focused on Gibe Sheleko National Park, which is in SNNPR of Gurage zone. This study utilized both quantitative and qualitative approaches to analyze

data using the SPSS statistical package. Qualitative data were systematically condensed and summarized, and discussed alongside descriptive figures of quantitative data analysis.

1.7 Limitation of the study

Even though there are other national parks in Ethiopia, the study is limited to Gibe Sheleko National Park in Gurage zone. Additionally, accessibility of secondary sources was limited for further investigation of the issue therefore findings of the study were not applicable to the whole region or country but only for the zone it is applied; as Gibe Sheleko is the only National Park within the zone. Since the park is relatively young i.e. it was established only in 2004, shortage of related scientific research, data and related information regarding the area, were other limitations of the study.

1.8 Organization of the study

The paper is organized into five chapters: Chapter one contains background of the study, research questions and objectives, significance of the study, and limitation of the study. Chapter two consists of summary of related literature. Chapter three comprises the research methodology that includes a brief description of the study area, sampling procedure, method of data collection, method of data analysis and ethical consideration. Chapter four includes data analysis, interpretation and discussion and finally chapter five consists of the summary, conclusion and recommendation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical and conceptual Review

2.1.1 Malthus theory on protected area

The associations that tight spot human and regular frameworks are incalculable, however seemingly, one of the most talked about through humankind's set of experiences has been the consistently expanding size of the human populace also, its relationship with the normal assets whereupon it depends. According to Thomas Malthus in 1798, "The power of population is indefinitely greater than the power in the earth to produce subsistence for man," modern theories on the connection between population growth and environmental degradation can be traced back to that year. Malthus imagined an approaching Armageddon situation where exorbitant human populace development would exhaust a restricted stockpile of normal assets (Malthus, 1986). He argued that while population growth is exponential, arable land is finite and agricultural production grows geometrically. He speculated that as human numbers developed, food supplies would be lacking to take care of humanity and human numbers.

2.1.2 Fortress Preservation

2.1.2.1 Fort preservation model 1

Fort preservation is a methodology that gives power to the organic viewpoint over the human/social component of preservation. It takes a protectionist or preservationist approach. As a approach to protecting nature, it utilizes strategic style and framework through its "fine sandwall" approach and subsequently its portrayal by pundits as "fortification protection" (Fisher et al., 2005). It assumes that nature is best monitored in safeguarded regions wherein aggravation from human exercises ought to be blocked. Certain regions are assigned as safeguarded in the midst of the wide climate. This thought has been molding the preparation and planning of safeguarded regions in the twentieth 100 years and then some. Therefore, safeguarded region approaches in light of this model by

the same token confined admittance to regular assets or prompted the all-out removal of neighborhood individuals living inland around the safeguarded regions (Neumann, 2005).

Generally talking, this was the fundamental way to deal with the preservation of nature during the 1960s and 1970s. This methodology thus has established in the reasoning amplifies the stylish worth of wild nature as effectively elevating the soul of man. Accordingly follows the dichotomization between man also, the climate wherein the previous is envisioned as horrendous and oblivious. This equation says that indigenous peoples who lived in and around wilderness areas and rural residents are seen as naturally destructive, so their activities were thought to be against nature conservation. Upheld by elites both from the created and the creating scene, this gave rise to the conspicuousness of parks as places of refuge to nature from the desolates of common use or the intruding hand of man (Fisher et al., 2005).

Thusly, it is contended that such a methodology was without a doubt elitist and especially preferred the worth of nature to people overall. Little interest in the worth of nature to poor rustic individuals (Fisher et al., 2005). Such elitist viewpoint turns out to be even a more difficult issue to the vocation of the poor rustic individuals (especially in Underdeveloped nations) when it is consolidated with the natural hypotheses and in this way:

Dangers to nature in non-industrial nations were normally outlined as far as the 'uninformed conduct' and 'wild administration' of rustic people groups and concerning 'uncontrolled populace development'. Issues related to these dangers included overgrazing and surpassing conveying limit, slash-and - consume farming, the impoverishment of vegetation prompting the vanishing of peak vegetation, as well as the poaching of natural life. Answers for safeguarding nature unavoidably followed. In the early years protection subsidizes supported preservationist ways to deal with preservation, for example, laying out safeguarded regions and stores, eliminating neighborhood populaces, providing antipoaching gear, and directing creature and plant overviews (Fisher et al., 2005).

This worldview of preservation strategy by which nearby occupants are removed from the areas assigned as public parks and other safeguarded regions has been the predominant preservation move toward in the non-industrial nations until as of late. In Africa, this

preservation strategy was presented by provincial powers and later extended by preservation specialists (Hanna, 2006).

The commonsense appearance of this preservation approach comes as rejection. Because of such prohibition, resettlement of nearby individuals to other area; limitation of admittance to business assets; separate of common terrains; breakdown of nearby administration frameworks and social structures; fines and detainment; furthermore, expanded provincial clash and starvation are among the influences produced. Such preservation thinking affected how the neighborhood individuals living in and around safeguarded regions are seen in preservation and hence: Neighborhood individuals were - regardless arelabeled as poachers or vagrants instead of trackers or pioneers (Fisher et al., 2005). Thus, asset extractions like brushing, hunting, gathering and so on are not any more available to the nearby individuals. They rather become under direct state proprietorship and assigned as safeguarded regions for the preservation of the vegetation and the fauna and for their touristic significance (Neumann, 2005).

2.1.3 Fort preservation model 2

A heated debate about nature conservation ensued due to the protectionist nature of fortress conservation and its philosophy that nature conservation and human habitation are inherently incompatible. The most contentious aspect of biodiversity conservation in this regard is the human aspect. That is done both in a theoretical manner (connection among people and nature) and on a more viable level (how to manage individuals living in and around safeguarded regions) (Buscher&Whande, 2007). Agreeing, to Attwell and Cotterill (2000) rising the issue of local area stake in regular asset protection resembles scrutinizing the job and authenticity of preservation science. Sanderson and Redford (2004) would contend that progressives have no liability for monetary improvement of the nearby individuals.

Then again, Brockington and Schmidt (2004) contend that preservation ought to consider the prompt need of the nearby individuals and hence ought to add to destitution lightening. This is since there is moral and viable motivation to consider in the creation and support of safeguarded regions (that typically includes the rejection of nearby individuals) Cernea

and Schmidt (2006). Rolston (1996) contended that there is moral obligation wherein saving nature. (Hanna, 2006) composed that Rolston III's thought is preservationist and that he gives moral obligation to the North (Created Nations of North America and Europe) for nature protection. In the equivalent way, (Fisher et al., 2005) contention builds up this statement when they compose that fort preservation is scrutinized on account of its ethnocentric direction inclining toward Western thoughts of nature; its elitist approach, which disregards the indigenous inhabitants' land rights; its disregard of the more extensive environment approach in which human are likewise a section in impacting scene; furthermore, its detachment of individuals from safeguarded regions which has brought about natural rearrangements an strain on assets beyond the safeguarded regions that at long last effects on the safeguarded regions themselves.

Generally, stronghold preservation underestimates, condemns and devastates neighborhood individuals. This has brought about the dissent of the nearby individuals against protection shameful acts. Accordingly, unlawful hunting and brushing and other ordinary types of opposition turned into the signs of the disappointment of fortification protection. This means that fortress conservation frequently works against itself. Notwithstanding, such fights from individuals are normally introduced as an issue brought about by populace development and hence pressures from the encompassing regions and absence of enthusiasm for nature protection from the piece of the nearby individuals. Such view overlooks the manners by which safeguarded regions are generally ensnared in the states of destitution and underdevelopment that encompass them (L. Hanna, et. al 2007).

2.1.1.1. Fort preservation model 3

As a result, since the 1980s, the effectiveness of fortress conservation has been questioned. Community Based Conservation (CBC), on the other hand, has taken over conservation discourse. Here it is contended that nearby individuals ought to be engaged with the preparation of safeguarded regions and ought to receive unmistakable monetary advantages in return consequently giving a financial stake for nearby networks in protection. This has been the consequence of advancement thinking wherein participatory and granular perspectives has been put sent. With that the focal point of protection has thusly moved from conservation to feasible use, with pay creation through controlled asset extraction,

ecotourism, directed prize and resource hunting, furthermore, different exercises coordinated with protection targets assuming a focal part (Hanna, 2006).

However, many people today believe that privatizing nature reserves is necessary, and community conservation is therefore viewed as in line with market logic, which links conservation and development. This can be risky, in light of the fact that in region of the reality where land freedoms and protection are challenged issues or where there are elevated degrees of neediness, privatized nature holds address another type of dispossession or snag to compelling re-distributive changes (Buscher&Whande, 2007).

2.2 Empirical review

2.2.1 Challenges to Conservation and Protected Area Management in Ethiopia

Ethiopia is exceptionally high in biodiversity but exceptionally low in capacity for biodiversity conservation or protected area management. Critically, there are over 80 million people in Ethiopia, 85% in rural areas, and 80% in the highlands. The vast majority are almost completely dependent on natural resources for their livelihoods. Consequently, 97% of the original highland vegetation has already been lost in recent decades due to encroaching agriculture, grazing and settlement by agro-pastoral communities. Impoverished resource-dependent local populations are still increasing in Ethiopia, both within and adjacent to National Parks and other areas with high biodiversity value (Young J.2012).

Finally, montane ecosystems are the most vulnerable on the planet to climate change over the next 50-90 years. Implementing sustainable and climate-smart conservation for the benefit of biodiversity and people alike is of utmost importance (Mutanga and Vengesayi 2015). However, in recent years the link between the environment and poverty are becoming higher profile and this has elevated the environment up the political agenda and there is substantial increase in political will for biodiversity conservation (Chanie and Tesfaye 2015). Even so, the legal framework for conservation is poor, with most National Parks still ungazetted and only an emerging framework for community-managed conservation areas.

Whilst Ethiopian wildlife policy advocates the right for stakeholder participation in resource management, in reality there is little participation from local government or communities. Thus, the sector of society most dependent on natural resources has no ownership and little involvement in their management (Amare, 2015).

Aside from national park, protected areas receive little income from tourism or other sources, thus monetary benefits to communities are also limited. Additionally, government and community agencies are understaffed, undertrained, under rewarded and have little experience and thus have low capacity for conservation or engagement with communities (Getahun and Yeshanew 2016).

The situation in the Simien Mountains Ecosystem (SME), with the Simien Mountains National Park (SMNP) currently typifies these issues. Nearly 4% of the park is under agricultural land and an estimated 436 households living within the park boundary (EWCA, 2013).

According to (Birhan and Gebreyes 2015) with many developing countries, PA and wildlife management and conservation activities in Ethiopia are constrained by limited personnel, equipment, and software, funding and training. Constraints are classified into four categories which are; political, economic, social and biological constraints. Social constraints included negative perceptions of wild life and, lack of capacity to achieve conservation, lack of environmental awareness, rising human populations, and social changes leading to subdivision of land and consequent habitat fragmentation. Habitat destruction, fragmentation, poaching, and lack of proper management are among the various problems that are decimating or threatening the quality and quantity of wild bio diversities in Ethiopia.

2.2.2 Activities that Threat Protected Areas of Ethiopia

According to (Neko N. 2014) major threats for management of protected area mainly in Maze national park are grazing, uncontrolled fire, expansion of farming, hunting, cutting living tree and, conflicts between the park management and local communities, population explosion, and expansion of built-up area. These problems result in soil erosion, vegetation degradation, wildlife depletion and deforestation. Negese N, 2014)

Challenges of Protecting Protected Area in Ethiopia: The Case of Maze National Park, in SNNPR in GamoGofa Zone Major threats for managing protected area in Maze National Park According to (Chanie&Tesfaye 2015) illegal activities such as illegal fishing (100%), fuel wood collection (100%), charcoal production (92%) and grass cutting (88%) as the major threats for NSNP. Deforestation, through fuelwood collection and charcoal production (for cooking purpose and house building), followed by grass cutting and illegal fire were the prominent threats to NSNP. Illegal Activities that threats biodiversity in NSNP (Solomon Chanie and DerejeTesfaye, 2015)

Threats of biodiversity conservation and ecotourism activities in Nechsar National Park, Ethiopia According to (Amare., 2015), the major threats of protected areas (GhibeSheleko National Park) are urbanization, agricultural expansion, accessibility and resource extraction. Very few participants living around the park knew the park had already been established but they still regarded the land as their property and considered cutting trees for house construction and building agricultural equipment to be their right. This seems to be due to their limited awareness about protected area management and an inability to get equal benefits from the ecosystem.

Local communities knew the park provided ecosystem services, such as recreation (natural views and wild animals), hot spring, and small streams as sources of holy water and fishing activities as a source of food. However, they need extra benefits that directly impact their livelihood. If they do not obtain enough benefits, they may read just the protected area in some ways that affect the conservation goals and increase species extinction in the park (AlemayehuAmare., 2015).

According to (Wassie 2011), agricultural expansion, cattle grazing by pastoral nomads and local people, poaching, excessive harvesting and uses of resources (for constriction of house and households, and for fire wood), over and illegal fishing by local community and outsiders, uncontrolled fire, trade in wildlife products etc. are major treats of both parks of Alatish and Dinder which cause for biodiversity lose in alarming rate.

According to (Birhan and Gebreyes 2015) encroachment from the surrounding communities is currently among the major problems of parks like Semen Mountain national park, Awash National Park, Bale Mountain National Park, Borena-Saynt national park and Nechsar national park. Journal of Tourism, Hospitality and Sports.

2.1.1.2.Expansion of Protected Area

Potential for Tourist Destination Protected areas are the main focus for the maintenance of biological diversity and contribute for economic developments of a nation. The forest cover of Ethiopia declined from 47% to only 3% for the past few decades due to ever increasing population and anthropogenic effect (AlemayehuAmare 2015). Ethiopia had more than 55 protected areas covers currently about have more than 17.1% of its land, ranked third in African country next to Tanzania and Uganda (AlemayehuAmare 2015).

This crisis seems under recovering slowly in the future. The country is one of few countries where the establishments of protected areas are increasing. For example, Ethiopia had only two protected areas (namely; Awash and Simien Mountains National Park) before 40 years and today has more than 55 protected areas (including 21 national parks) to protect and conserve the natural ecosystems and wildlife heritage of the country. Conversely, those protected areas are exposed to severe pressure, which threatens their existence and sustainability due to anthropogenic effects (Amare 2015). *Journal of Tourism, Hospitality and Sports*

2.1.1.3.Human-wild life conflict

Conflicts over natural resources between the communities living adjacent to protected area and tourism development have increased in recent years because of changes in land use and accompanying new ideas about wildlife resource management and utilization. Human-wildlife conflict is a major concern of most people living next to protected areas in developing countries due to their subsistent live (Reddy &Workneh, 2014). Since livestock herding and agriculture is the main source of income and livelihood in developing countries, human-wildlife conflict is more experienced in the region for natural resource consumption, which brought wildlife under serious threat. Human wildlife contests begin when livestock try to win food and water against the will of wildlife in (Woyesa, 2016).

Human-wildlife conflicts have been more intensive in recent decades, because of exponential human population growth and economic activities. The highest intensity of conflicts tends to occur where humans live adjacent to protected areas and Crop damage is the most prevalent form of human-wildlife conflict across the country (Hansilo and Tiki 2017).

In Ethiopia, most of the people whose farming activities are poor, local subsistence farming communities, and in some cases, commercial farms adjacent to wildlife habitats often impacted by the presence and abundance of wild pest animal species. Crop damage is an increasing source of economic loss and local frustration in subsistence agriculture settings and also promotes negative attitudes towards species of conservation value. Teshome and Girmay 2017).

In Ethiopia, different protected areas face many challenges due to growing populations, border conflicts, and recurring drought. Many of Ethiopian people are pastoral rural who need local access to grazing lands (Teshome and Girmay 2017).

2.1.1.4. Conflicting Perspectives between the State and Local People

According to (Abelienh A, 2017), the establishment of the park significantly affects the local people livelihoods and makes a critical challenge for the park administrators and other local government bodies and vice versa in case of Alatish national park.

Thus unless the government bodies reconsider the issue in the park planning and administration process and then make some adjustments which are important for the bio diversity conservation and well- being of the local people, both the park sustainability and livelihood sustainability will be greatly at risk. According to (Debelo 2012) protected areas such as Nechsar national park the state and local people (Guji communities) exhibit competing interests over the park.

The state exerts structural power through forced resettlement programs, territorialities, control and surveillance of access to traditional resource areas of the local people. State intervention had created new reconstruction of identity among the Guji in that they began dichotomizing between themselves and the wildlife. Guji informants explain that the government of Ethiopia has given priority to the wildlife over the people. The Guji youth in particular have deep-rooted discontent against the state and the wildlife, which they believe are the cause for their displacement. (Debelo 2012) On the contrary, the park authority accuses the Guji of encroaching upon the park through cattle trespass, hunting and setting fire to the park. Local communities present that basic social provisions such as electricity, roads and drinking water supplies are either entirely missing or very inadequate in PA as the most pressing challenges. (Debelo 2012) They reported that GO's/NGOs

seeking to provide social provisions to the community were prevented by the park management with claims that it is not allowed to establish or expand social provisions in a national park's territory (Astella 2013). Lack of electricity, roads and water supplies prompts the people to opt for other means of acquiring or supplementing livelihood that are still against the park's rules and regulations (Astella 2013).

2.1.1.5. Tender by animals

Tender by animals has been a significant issue for the administration of the public parks and safeguarded regions. Overgrazing by homegrown domesticated animals is a significant reason for land degradation in bone-dry (Perveen et al., 2008) and semi bone-dry biological systems (Huang et al., 2007). Touching habitually work through the decrease of plant cover and fracture followed by vanishing of vegetation patches, lessening their size as well as numbers (Perveen and Hussain, 2007) and prompting soil disintegration and misfortunes of supplements from the uncovered soil (Holm et al., 2002). Brushing expanded, decreased or needed reliable impact on plant variety (Proulx and Mazumder, 1998). These differentiating examples of reaction have regularly been ascribed to contrasts in brushing force. Overgrazing addresses the clearest influence on the local biodiversity of fields. As overgrazing causes retrogression, invigorates development of weeds and loss of variety. Overgrazing lessens the tall grass cover to tufted grass type (Olsen and Larsen, 2003). Animals influence on biodiversity through stomping on and evacuation of biomass, change of species piece through particular utilization and changed between plant rivalry. Changing the intensity and selectivity of grazing will unavoidably alter biodiversity; Both undergrazing and overgrazing can have negative effects, but livestock overgrazing is becoming more and more problematic Khan. Brushing creatures impact species organization, change in biomass and circulation of biodiversity. In a similar vein, Pratt and Gwynne (1997) and Sher and Hussain (2009) discovered that excessive grazing has a negative impact on the productivity, diversity, and vegetation of the ground cover. Besides, the effect of touching on rangeland vegetation Brushing creature might apply valuable or shared effects on the vegetation to their benefit however then again, enormous convergence of them frequently hurtfully affect the plants due to selectivity and over brushing.

According to Sher et al., quantifying the impact of livestock grazing on natural communities (forages) has emerged as a major problem. 2005:147) in the administration of rangelands particularly where the brushing is exceptionally far reaching and its effects might be in struggle with moderating biodiversity (Olsen and Larsen, 2003; Sher et al., 2005). Lamprey (1979) archived that brushing is among the significant specialists, which impact the dispersion of some vegetation types. Brushing creatures impact species creation, change in biomass and circulation of biodiversity. In spite of this, the abuse by brushing of safeguarded regions could bring about irreversible vegetation changes (Van de Koppel et al., 2002). These changes typically involve the substitution of woody species for grasses, which results in the invasion of shrubs and/or trees and an expansion of the scale of the spatial pattern of plant patches and soil resources (Adler et al., 2001).

In Ethiopia Overgrazing brings about diminished soil cover, expanded disintegration, diminished quality and efficiency of reach assets, decrease or end of the regular recovery of woody species and favored scavenge species, shrub encroachment in certain areas and loss of biodiversity (EBTF, 2008). Flooded, Abijata-Shala and Nechisar public parks, infringement and brushing constrained numerous natural life species out of the recreation area because of expanded rivalry for scavenge (Hillman, 1991, Gebre Michael and others, 1992, Jacobs and Schloeder, 2001). As indicated by Zewdu and Yemisrach (2003), the degree of provincial destitution, absence of motivations, expanding interest for brushing furthermore, numerous other complex issues have placed a ton of weight on the preservation system of the country. Desalegn expressed that specialists consider steers touching on Nechisar NP as the most squeezing issue of the recreation area because of multiple factors as the recreation area superintendent made sense of: "Munching in the recreation area adversely influences biodiversity by debilitating grasses and related assets; normal utilization of the field fields by natural life and homegrown creatures increment the gamble of illness transmission to and from natural life; furthermore, their presence in the recreation area makes the recreation area less alluring to travelers as they are intrigued more with regards to noticing wildcreatures (Desalegn,2008).

These alluding to the indications of depletion in the grass cover, the specialists contend that the recreation area region experienced overgrazing by the dairy cattle underscoring

that the steers populace is well past the conveying limit of the area (Bolton, 1973). A comparative instance of territory misfortune and fracture has likewise been accounted for all Public Park in Ethiopia, the deficiency of field land to the neighborhood individuals and the nearby local area direct include on safeguarded region to take care of their dairy cattle (Hillman, 1988). Consequently a similar issue in the maze Public park happened and the cases will be depict and make sense of exhaustively when the concentrate on going.

2.2. Coordination among Stakeholders of Protected Area

The main stakeholders associated with PA are; local community, Zone and Regional Administration, government, NGOs and other Educational Institutions. According to (Woyesa T 2016) the contradictory attitudes in NP mainly about the size of the park, the fate of the community, the legal status of the park boundary and the conservation scheme to implement put both states in difficult state to compromise and place the park in difficult situation to achieve conservation objectives. Conservation without the consent and participation of communities affected by park establishment in NNP eroded sense of ownership and built negative perception towards any move by government to succeed in conservation effort (Woyesa T 2016).

2.3. Attitude and Perceptions of Local Residents toward the Protected Area

Protected areas are interpreted differently by different groups. For conservationists, they are an effective measure for protecting biodiversity; and for the surrounding local communities, protected areas can signify restricted access to livelihood resources, forced relocation, or opportunities for income generation through tourism revenues (Kumssa T and Bekele A., 2014). Today, more and more conservationists believe that conservation efforts not supported by the local people living in the surrounding lands are bound to fail. Thus, in addition to enforcements of conservation policy by law, a strategy that will stimulate public support for conservation and increase opportunities for the community to share the benefits must be developed. Understanding human attitudes and the potential for

wildlife conflicts in the context of protected area management is critically important in designing long-term conservation strategies (Nishizaki 2014).

As (Abelieneh , 2017) in Alatish National Park, 61% of respondents responded that the Park would contribute nothing for social resilience. 69% of respondents explained the demarcation and its establishment are not considered in line with livelihood strategies and main activities. Main livelihood activities linked with the park includes fishing, beekeeping, grazing, farming and other activities. Due to this inconsiderate intervention, the livestock number, fish production, honey production and farm land size decreases as it is supported by 57%, 62%, 56% and 82% of the respondents respectively. 85% of the respondents assure that there was no training with regard to park management and administration for the local community. According to (Kumssa, Bekele, 2014) in ASLNP (Abijata-Shalla Lake National Park) out of the 360 respondents, 85% of respondent were unhappy on the existence of the Park whereas 12% had positive attitude and 2.4% were neutral. There was no significant difference on attitude towards the conservation area among village respondents. Gender had no association with attitude. However, support for the Park and associated policies were significantly associated with age of respondents and education. Younger respondents (≤ 40 years) and literate ones expressed more positive attitudes (19.17 and 64.91%, respectively) towards the Park than older respondents (4.79%) and uneducated ones (2.64 %).

2.4. Opportunities of protected area managements in Ethiopia

Ethiopia possesses considerable biodiversity and natural resources, as well as many endemic species; however, its wildlife conservation policy has changed with changing regimes. 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. Moreover, given the potential of the park and biodiversity, the extent of protected areas and biodiversity conservation of the country is negligible lacking protected area networks and management plans (Overview of Selected Biodiversity Indicators, 2010).

To ensure long-term success of conservation efforts supportive relationship between communities and protected area nearby is crucial; however, failure to ensure participation

of locals; absence of alternative livelihood and widespread poverty, human settlement, grazing, absence of legally recognized boundaries of protected areas were persistent in Ethiopian protected area (Eshetu 2014) where local community used to utilize the land until they were declared protected areas. According to (Teressa 2017), due to country's experiences of armed conflict in previous regimes and development of negative attitudes towards conservation practices and benefits gained from development nearby the PA, the history of PA shows changes.

If people get an opportunity to share their opinions on conservation and the process to do so is created for them, it leads to the better understanding of values, attitudes and the potential to find solutions to conflicts (Teferra&Beyene 2014). Recognition of the relationship between local community and natural resource is very important in sustainability of protected area management and conservation goals where long standing tensions over land use, local utilization of nature, failed consideration to traditional resource usage and human wild life conflict may limit the local acceptance of conservation strategies. Moreover, Ethiopian protected area management and conservation strategies change with the change in political ideology and in regime (Teressa 2017).

2.4.1. Proclamation and Regulations of Wildlife Managements

Proclamation Number 541/2007 development, conservation and utilization of wildlife and regulation No 163/2008 wildlife development, conservation and utilization is other opportunities for management of protected area. Towards attaining the objective of the conservation and management of PA the promulgation of the declaration of the proclamation and regulation of wildlife development and utilization has paramount importance's which give due emphasis to the tripartite role of the government, the community and investors and developmental NGOs (Seifu M., 2011).

2.4.2. The Presence of Diversified Wildlife

Ethiopia is one of the top 25 biodiversity-rich countries in the world, and hosts two of the world's 34 biodiversity hotspots, namely: The Eastern Afromontane and the Horn of Africa hot spots (Tefera, M. 2011). The biogeography of the country characterized by two

features; namely the arid horn of Africa (Ogaden) and mosaic highland plateau and results extremely rich and distinctive flora and fauna. This wildlife diversity is a great attraction of tourists; nature-based tourism to support the country's economy and for future protected area management to the country. The country has a diverse and contrasting from the desert of the Dankil Depression, the lowest dry land points on earth at 116 m below sea level to RasDashen Mountain (the second peak and roof of Africa) at 4543 m above sea level (Tefera, M. 2011). The country has more than 1.3 million hectares (of which 1.12 million are land) with variety of climate, topography and vegetation supports high endemic flora and fauna of the country that attracts regional and global tourists (Tefera, M. 2011).

2.4.2.1. Faunal Diversity

Unlike the flora of Ethiopia, the fauna is not well investigated and documented. However, I tried to compile documents obtained from different literature to show the mammalian diversity that could contribute for tourism information and conservation development strategies. Currently, around 320 species of mammal including 39 endemics (both small and large mammals), 918 birds with 19 endemic species, 240 reptiles (16 endemics), 71 amphibians (30 endemics) and 172 freshwater fishes with 38 endemics and more than 1225 insects recorded in Ethiopia. Therefore, Ethiopia has one of the most diverse mammalian faunas in Africa and the great attractions of its wildlife heritage (Amare, 2015)

2.4.2.2. Floral Diversity

The floral part of Ethiopia varies from montane forests with coniferous and broadleaved forests, vast savannah, steppes and to deserts are interrupted by lakes with acacia commiphora woodland ecosystem, crossed by rivers and streams accompanied by galley forests. The flora and topography also provide another excitement for tourists. However, Ethiopia has diverse floral diversity, more than 6500 species of vascular plants (with 625 endemic species and 669 near-endemic species, and one endemic plant genus) and ranked the fifth largest floral Journal of Tourism, Hospitality and Sports (Young J, 2012).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the choice regarding the methodologies applied in this research and explains the rationale behind them. Accordingly, it clarifies the research approach, the research design, the sources of data and data collection instruments, target groups and sample selection, and the analysis strategy. Finally, it addresses the ethical issues considered in the process of data collection and analysis of the research data.

3.2. Description of the Study Area

Gibe Sheleko National Park was established in 2004 and is administered by the southern region. It is 170km away from the capital city Addis Ababa and 18km far from southwestern of Wolkite. It is geographically located between 7°59'00"N and 8°16'00"N, and 37°37'00"E and 37°48'00"E, and is surrounded on the western side by three districts of the Gurage zone, namely Abeshege, Cheha, and Enemorener, as well as the Gibe River (Tilahun et al., 2017). The Park is surrounded by Woredas such as Gibe, Misha, Yem special Woreda, Sekoru, and NonoWoredas outside of the Gurage area (Fig. 1). The Park covers 360 Km² of the geographic area where its topography is characterized by flat areas, plateaus, gorges, and relatively undulating and rocky steep slopes (Tadele et al., 2020). Within and along the boundaries, there are several water bodies, including streams, rivers, and hot springs. This Park is unique from other parks due to its high bird species diversity and woodland ecosystem.

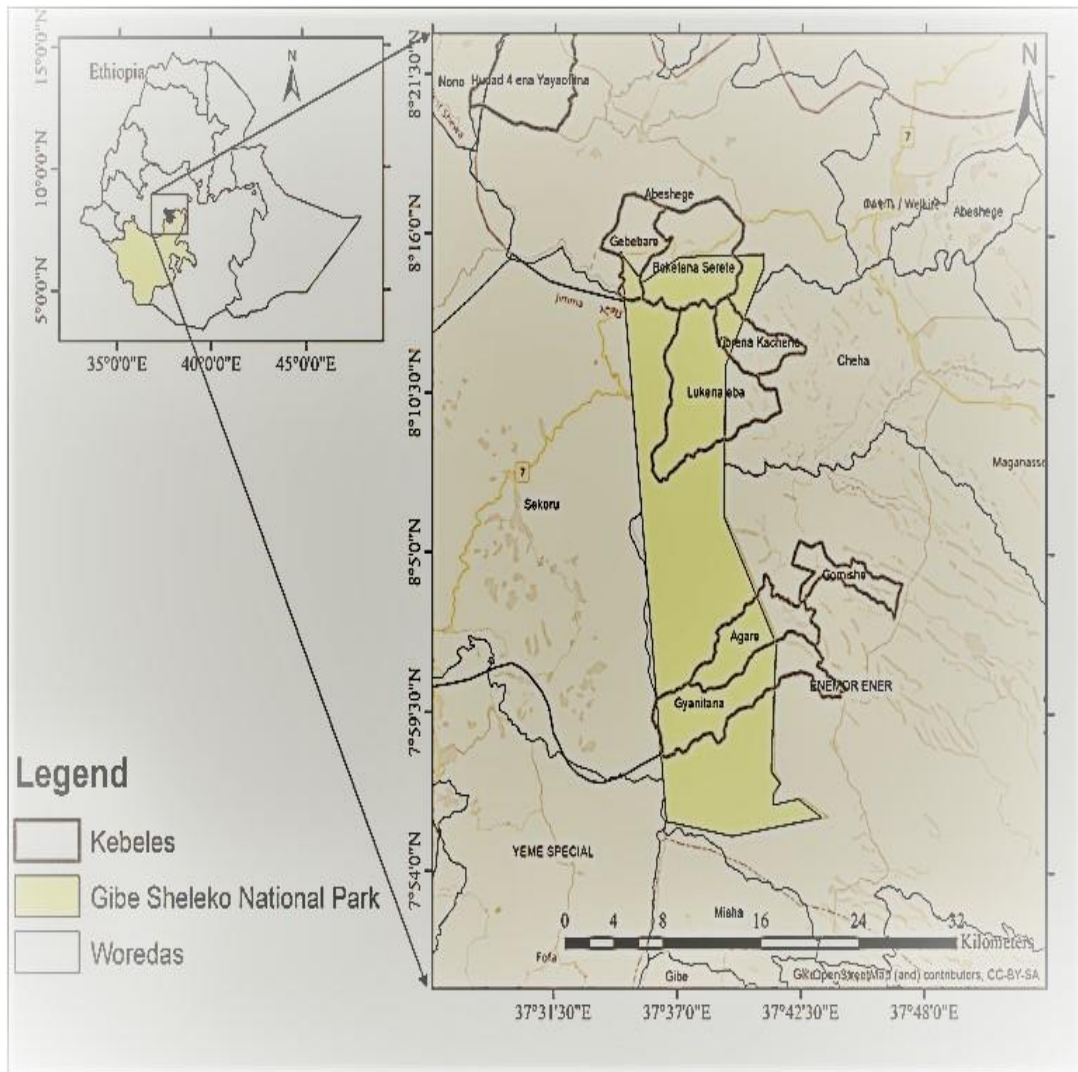


Figure 1 Map of the study area

The residence in and around the park economically mainly depend on agriculture and animal farming. Such information confirmed that district officials allowed other people to make them but used the vehicles to take these products out of the park to sell them. Grazing had been one major activity in the area long before it became a park (Amare,2015).

3.3. Research Design and Approach

According to Cooper and Schindler (2014), suggestion research design is the plan and structure of investigation so conceived as to obtain answers to research questions. The researcher is going to use descriptive research design to undertake this study. Since

descriptive research design is typically concerned with describing the characteristics of a phenomenon, it can be used for the purpose of estimates of the proportions of a population that have these characteristics. As a result the researcher believes that, to address the main objective of the study, qualitative research approaches and quantitative research approach will enables to identify and define the existing conservation challenges and opportunities of Gibe Sheleko National Park.

3.4. Source of the data

The collection of information was carried out through primary and secondary sources.

3.4.1. Primary data

The primary data was obtained through focus group discussions (FGDs) were conducted in 3 different locations within the park the park headquarters, the main venerable area, and a remote village., key informant interviews participants were including park staff, local government officials, surveys, and observations. These methods were employed to generate qualitative and quantitative data relevant to the demographic, social, and economic characteristics of the sample population. For quantitative analysis purposes, a questionnaire was designed comprising both open-ended and closed-ended questions. The following data collection tools were employed to gather relevant data.

3.4.2. Secondary data

The secondary sources of information was obtained from published and unpublished works or materials, journals, books and articles

3.4.3. Methods of Data collection

Questionnaire: Structured household survey questionnaires were provided to sample households to gather information about farmers' conservation practices, including farming activities in relation to wildlife interaction, their livelihoods, energy demand (firewood collection practices, charcoal production, and other practices), and their household demographic characteristics such as socio-economic characteristics. It was prepared in

English and translated into Amharic then distributed to respondents. The closed-ended format questions enabled respondents to select one option that best meet their needs, while the open-ended questions were included to give respondents an opportunity to express their perceptions, feelings, and problems regarding the challenges in conservation practices and opportunities.

Key informant Interview: The purpose of the interview was to obtain more supportive ideas in order to strengthen the responses gained from the questionnaires. Semi-structured interviews were conducted in the study area involving the selected 9 key informants from more experienced informants (i.e., 4 officers, 3 scouts, 2 Elders) who were purposively taken from the existing scouts, relevant officers, and residents of the study area. Key informants were selected using purposive sampling techniques because they were expected to have better knowledge and information regarding Gibe Sheleko National Park conservation practices and the challenges and opportunities that support the objectives of the study. These groups were expected to provide information regarding the land use history, socio-economic activities, biodiversity, and the challenges to conserve it in the park.

Focus group discussion: Three FGDs each comprises about 8-12 members (one FGD was men's group; the other one was female FGD and the third one was mixed FGD group) were made with residents of the study area were selected. The participants in FGDs were purposely selected based on their knowledge of Gibe Sheleko National Park and the socio-economic activities in its surroundings.

Field observation: Field observation was another data collection method employed to generate relevant information about the area and ensure the validity of information collected by other methods. It contributed much data for the investigator to understand the actual situation and socio-economic condition of the study area. Field observation was carried out to assess the current land use/land cover, the state of the park and its current natural resources or biodiversity, and the level of degradation. Checklists and field guidelines were used to support the field visit.

2.3 Sample population and sampling technique

The study focused primarily on the challenges and opportunities of Gibe National Park, Ethiopia; however, these issues were concerned by three bordering woredas namely Cheha, Abeshge, and Enemor. To carry out the study at Abeshgeworeda was selected based on the distance. Then three bordering kebeles such as Boketa, Bido and Gibe were purposely selected based on their distance from the border of the park to represent the major challenges and opportunities of the park that enables to answer the research question(s) and to meet the objectives of the study.

At third stage, simple random selection method was applied to select the final respondents to be interviewed. Accordingly, 123 samples household were taken and allocated to each kebele using proportional probability sampling method. Hence, 60 households from Boketakebele; 42 household from Bidokebele; 21 household from Gibe kebele (Table 1). The determination of sample size is resolved by means of Yemane (1967) sample formula with 90 percent confidence level.

$$n = N/1+N(e)^2 \dots\dots\dots \text{Equation 1}$$

$$N \approx 88225, e = 0.09, n = 123$$

Where n = sample size for the research use, N = total number of households in the study area of Abeshge Woreda, e = margin of errors at 10%

Table 1 Proportional probability sampling technique

Kebele	<u>Total households (hh, n)</u>	Selected hh (Total hh in kebeles *123)/ 7672
Boketa	3730	60
Bido	2613	42
Gibe	1329	21
Total	7672	123

N.B During the data collection time there are 13 data that are missed due to absence of the household aged above 18 (8 hh) and due to their unwillingness to participate in survey (5hh). Therefore the sample sizes that are taken in the analysis became 110.

3.5. Method of Data Analysis

Careful data analysis was undertaken in both approaches i.e. the quantitative and qualitative methods. For the quantitative data analysis, the data was gathered using a questionnaire which was first arranged and organized in tables and changed into frequency and percentages, mean, and standard deviations through SPSS statistical package.

Narration and descriptions of those three objectives was employed in the case of qualitative data analysis of the data that are collected through interviews, focus group discussions and observations. The qualitative data were also analyzed systematically by condensing and summarizing information and discussed along with descriptive figure of quantitative data analysis.

3.6. Ethical consideration

Ethical Considerations achievement of any study tallies upon unconditional and keen collaboration from the participants. If the participants are not eager to participate in the study willingly, they might provide insensitive response, which could mislead the overall findings of the study. In order to ensure the quality of data and for ethical purpose the following ethical issues were taken into account. The objective of the study were explained to all the study participants so that they be informed well; date and time of the data collection was arranged on the suitability of the participant, and they provide kept confidential and will not be revealed to anybody else. Therefore, participants will have the right to pull out before or on the time of participation in case they might feel uncertain.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

In this chapter, two parts of the study were treated based on the data obtained. In the first place the Socio-demographic characteristics of respondents were presented; and secondly, analysis and discussion of the data collected from the sample respondents through questionnaire, key informant interview, focus group discussion and field observation result were used. The data were presented in tables and analyzed using statistical numbers, percentage and descriptive statements and the qualitative data were also analyzed systematically by condensing and summarizing information.

4.2 Sociodemographic Characteristics

Table 4.2.1: Socio-demographic characteristics of respondents

Variables	Category		Frequency N (%)	Percent N (%)
Age	Mean= 50.9		SD= 7.7	
Sex	Female		41	37.3
	Male		69	62.7
	Total		110	100.0
peasant association	Boketa		29	25.9
	Bidotadele		38	33.9
	Gibe bare		45	40.2
Family size	Mean =8.7		SD=2.5	
Occupation	Farmer		110	100
	Other		0	
Educational status	Illiterate		56	50
	Read and write		26	23.2
	Elementary		30	26.8

	Junior and above		0	0
Land size	Mean=3.13		SD=0.9	
Marital status	Single		0	0
	Married		97	97
	Divorced		15	15
	Widowed		0	0
Number of cattle	Mean		9.2	
	SD		2.7	
Major sources of income	Selling serials and crops		110	100
	Other		0	0

The table provides information about the demographics and characteristics of a group of farmers in a particular region. The mean age of the farmers is 50.9 years. The majority of the farmers are male 69(62.7%), with 41(37.3%) being female. The farmers belong to three different peasant associations, with the highest frequency being in Gibe Bare 45(40.2%), followed by BidoTadele 38(33.9%) and Boketa29 (25.9%). The mean family size is 8.7, with and all farmers are engaged in farming as their primary occupation.

Educational status varies among the farmers, with 56(50%) being illiterate, 26(23.2%) being able to read and write, and 30(26.8%) having completed elementary school. None of the farmers have completed junior high or above.

The mean land size owned by the farmers is 3.13 hectares. The majority of the farmers are married 97(97%), with 15(3%) being divorced. The mean number of cattle owned by the farmers is 9.2. The major source of income for all farmers is selling crops and cereals.

4.3 Analysis and Interpretation of the Data

The gathered data is analyzed by using SPSS Statistics. In addition, findings are discussed.

4.3.1 Current status of the park in terms of protection

4.3.1.1 Survey result of Current status of the Park

To analyze the current status of the park in terms of protection the researcher collect data and summarized accordingly from survey respondents regarding the purpose of the park. the park benefits to the community; their perception about usefulness of the wild life and grass as well as the management issue in addition to their satisfaction level about the performance of the current status (as shown in Table 3).

Table 4.3.2: The Current Status of the Park in terms of Protection

Variables	Category	Frequency N (%)	Percent N (%)
Why the park is formed	Conservation	29	26.4
	Tourism	21	19.1
	Don't Know	60	54.5
Does the park benefits the community	No	73	66.4
	Yes	37	33.6
Do you think wild life is useful	No	40	36.4
	Yes	70	63.6
Do you want to involve in management	No	34	30.9
	Yes	76	69.1
Why do you use the grass	Grazing	83	75.5
	Housing	25	22.7
	Selling	2	1.8
Your r/ship with the park	Smooth	2	1.8
	Medium	1	0.9
	Not good	50	72.7
	Bad	27	24.5
Current status	Not satisfactory	83	74.1

	Satisfactory	22	19.6
	Very good	7	6.3

Concerning why the park is formed, Item 1 Table 3 below, clearly depicts that 29(26.4%) of respondents believe the park is formed for conservation purposes, while 21(19.1%) believe it is formed for tourism. A majority of respondents 60(54.5%) do not know why the park is formed.

In terms of community benefits, 37(33.6%) of respondents believe the park benefits the community, while 73(66.4%) do not.

As to the usefulness of the park, Item 3, Table 3 above most respondents 70(63.6%) believe wildlife is useful, while 40(36.4%) do not think that the park is useful in general.

The high percentage of respondents who want to be involved in park management (69.1%) suggests that there is a strong interest in the community to participate in decision-making processes related to the park. This could be a positive sign for the development of conservation strategies that involve local communities, as it indicates a willingness to engage and collaborate.

The majority of respondents (75.5%) use the grass in the park for grazing highlights the importance of the park as a resource for local livelihoods.

The low percentage of respondents (1.8%) who have a smooth relationship with the park, and the high percentage (72.7%) who have not good relationship, suggests that there may be underlying issues that need to be addressed in order to improve community engagement and support for conservation efforts.

The fact that most respondents (74.1 %) feel that the current status of the park is not satisfactory highlights the need for improved management and conservation efforts.

4.3.1.2 Key informant interview results of the current status of the park

Key informant interview result demonstrates that the current status of the park in terms of wildlife conservation is experiencing huge decline in biodiversity including hippopotamus, lion, endemic bird species population. For instance, the results indicated that a few years ago, the number of hippopotamuses in the area was high whereas currently they are declining in number from time to time. In 2021, a number of hippos were killed by the local communities due to damage of crops in Gibe-State farm.

When the park was initially established the number of local residents surrounding the park were about 130 households but currently the number of residents increased radically into more than 500 households indicating the expansion of settlements in the park is posing a serious concern for the protection of the park and biodiversity. Additionally, the local residents traditionally prepare the farm during the winter season (during January, February and March) for subsequent cropping summer time (May, June, July and August) by clearing the area using wildfire. This phenomenon is a common and traditional practice that may cause serious plant and animal biodiversity damage in the park.

4.3.1.3 Focus group discussion results of the current status of the park

Focus group discussion result demonstrates that the current status of the park previously the Gibe-State farm was producing horticultural crops such as orange where the damage by hippos was minimal but when the farm shifts its production into cereal crops, they have claimed that the hippos damaged their crop and hence the local community has killed many of them and drowned into Gibe River. Since, the park is not protected and demarcated well, the wild animals are not getting their feed requirements, hence moving out to the local farms to get feed resource damaging crop especially maize and sorghum crops causing human-wildlife conflict. As a result, the current status of the park shows that there is continuous decline of mammals and bird wildlife population in and surrounding the park.

4.3.1.4 Field observation results of the current status of the park

Field observation results shown that, since the park was poorly demarcated, the surrounding residents in peasant associations such as BidoTadele, Gibe Bare and Boketa are using the park as a source of various resources such as animal feed, using it as forage land and cutting

of trees for expansion of agricultural field are some of the common phenomena in the area.
Challenges and opportunities of park conservation

4.3.2.1 Survey result of Challenges of park conservation

Table 4.3.3: Challenges and opportunities of park conservation

Variables	Category	Frequency N (%)		Percent N (%)
Prevented resources in park	No	0		0
	Yes	110		100
Which resource	Grazing land	74		66.1
	Fuel wood	6		5.4
	Hunting	4		3.6
	Farming	26		23.2
Protection challenge	Human encroachment	No	67	59.8
		Yes	43	40.2
	Expansion of farm land	No	14	14.3
		Yes	96	85.7
	Livestock grazing	No	5	6.2
		Yes	105	93.8
	Settlements	No	100	90.2
		Yes	10	9.8

	Fire	No	3	4.5
		Yes	107	97.3
	Hunting	No	105	96.3
		Yes	5	3.7
	Cutting trees	No	30	27.3
		Yes	80	72.7
	Road construction	No	110	100
		Yes	0	0

The table presents the results on various variables related to a park's resources and protection challenges. According to the table, all respondents 110(100%) reported that there are resources in the park that need to be protected,

As indicated in the above table with 74(66.1%) of respondents identifying grazing land as a resource, followed by farming 26 (23.2%), fuel wood 6(5.4%), and hunting 4 (3.6%).

In terms of protection challenges, 43(40.2%) of respondents reported human encroachment as a challenge, followed by expansion of farm land 96(85.7%), livestock grazing 105(93.8%), settlements 10(9.8%), fire 107(97.3%), hunting 5(3.7%), cutting trees 80(72.7%), and road construction (0%).

Overall, the table suggests that there are resources in the park that need protection and that human activities such as farming, livestock grazing, and cutting trees pose significant challenges to the park's protection.

The result from key informant interview, focus group discussion and field observation indicates the different challenges relating with legal ground, human encroachment, human wild life conflict; management of the park; local community neighboring the park; the status and structure of the park. Therefore the following are challenges as reported by Key informant interview, focus group discussion and field observation.

1. Legal ground

As the researcher analyzed and suggested by the key informants there are rules and regulation documented on national park regulation no.96/2001. These regulations give direction in terms of forest Development, Conservation and Utilization Proclamation and apart from that there are rules and proclamation made to demarcate the boundaries of Gibe Sheleko Park. In spite of the already documented rule and regulation made to demarcate the boundaries of Gibe Sheleko National Park and Forest Development, Conservation and Utilization, the policies governing the park were not enforced. The key informants also mention that the failure of conserving biodiversity in National Parks was ascribed to not enforcing policies governing the park. Although enforcement of policy shows one of the strongest relationships to management effectiveness, the assessment carried out by in various National Parks from showed that policies were not enforced. Therefore this resulted in a number of problems such as failure to monitor illegal resource use in the park, contested ownership of park land, and other problems associated with the mismanagement of the park.

2. Human-wild life conflict

From the field observation result and key informants such as scout of the park the study found that the communities kill different wild animal to protect their field. During main data collection the researcher found that many animals had been killed by farmers who are settled around the park. Human-wildlife conflict: conflict exists at the woreda of Abeshge here wild animals such as ape, monkey and Warthog and damage crops. In addition to these, leopard lion, hyena, crocodiles are eating domestic animals. Therefore, there are destruction of wildlife and plants by neighboring.

3. Management of the park

As the focus group discussion member reported that lack of clear communication channels between park staff and leaders at the local level was also attributed to failure of conserving biodiversity of the parks. In addition local people wanted local communities at the village or village development committee level to benefit from the park management programs, yet the park staff and district councils argued for the district at large to benefit as a source of conflict among the National park management and the local communities. Conflicts between the park management and local communities toward clear bordering, population explosion are much reported from the Focus group discussion.

From the point of the Key Informant there are lack of clear remark of the park border which concerning the local people coupled with failed to enforce the already existed policies and proclamation as well as the rule and regulations of Gibe Sheleko National Park is a challenge for the conservation of the park from the management side of the park

As indicated by the key informants such as scout and conservation Berou representatives, recurrent fire is a critical factor that devastates wildlife and plant resources, and this is generally caused by farmers who seek to raise new grass especially in January and March for and for road purpose. Once a fire is raging, it is difficult to extinguish manually since there are no modern fire extinguishers in the area. The rain may be stopped after the area receives rain.

4. Human Encroachment

As indicated by key informants' interview, human settlement and investment are undertaken in adjacent areas of the park. In line with this there has been agricultural expansion towards the park and demand for grazing land, collecting grass from the park due to conflict of interest over resource utilization from the park such as expansion of farming, cutting living tree and expansion of built up area. In addition to that focus groups also reported that investors are given arable land without limitation and they plough up to the park. For instance, there was one case where an investor found in miscommunication with stakeholders of the Gibe Sheleko National Park coupled with the conflicting laws and regulations of the park through his improper investment that violet his agreements that

resulted in affecting the park by killing some of the animals in the park to protect the shifted production investment.

5. The status and structure of the park

As the focus group indicates and also interviewer supports there is lack of modernization of the park and lack of creating tourism is also one the challenges towards improving the park and also to initiate the protection and conservation of the park by the communities. Additionally wrong perception of the local communities about the park by itself is a challenging situation for conserving the park as indicated by the Key Informants.

According to the sample respondents the park management strongly needs external supports for example within the park infrastructures are poor to visit deferent parts as well as even to use some business opportunities in the park.

4.3.1.5 Key informant interview, Focus group Discussion and field observation result of Conservation Opportunities

We can see the opportunities in two ways grouped in to two national policy governing the park, and financial source. One of them is the opportunities that related with the availability of concerned stakeholder in and around the park as well as the documented policy and proclamation about the park use. In another way there are opportunities for generating income such business of natural hot spring; the availability of Gibe river around the park that could be used for fish production as an income source; availability of different plant specious that could be used for honey production.

From the qualitative data analysis result the study identified some of the major opportunities that indicated as follows:-

1. In terms of National policy governing the park

From the researchers secondary document analysis result there are documented Environmental Policies and Proclamation in Ethiopia as well as Rule and regulation of Gibe Sheleko National Park that could be taken as an opportunities for the protection of Gibe national park. The park's administration possessed documents for legal establishment of the park. Legal creation of protected areas seems to provide some immediate guarantees

of protection under certain conditions. For instance, it serves as a deterrent to significant land use changes and habitat conversion even in the absence of other management actions. Legal establishment of National Parks is also linked to government support because it gives government a legal mandate to have control over National Parks [25, 35–38]). Ethiopian has signed conventions and agreements such as a convention on climate change, biological diversity and conventions to combat desertification, International Trade in Endangered Species of Wild Fauna and Flora (CITES), Conservation of Migratory Species of Wild Animals (CMS), and a range of Agreements on the Conservation of African Eurasian Migratory Water birds (AsayehgnDesta, (n.d). Therefore, this all convention suggests that there is an opportunity for expansion of Gibe national park.

2. Conservation of the Park - Political significance: As the region is relatively peaceful and secure compared to other region, the park also has the potential to be a trans-national and international biosphere reserve.

3. Financial source and Variety and Abundance of plant and wild life

According to field observation and key informant interview result there are the opportunities as financial source because the availability of Gibe river around the park that could be used for fish production as an income source; different plant species that could be used for honey production and business opportunities from natural hot spring.

4. Topographic features of the Park

From the field observation result, the most outstanding feature of the park is the presence of a huge plain which dominates the region and which is not exposed to soil erosion. This offers the greater opportunity for conservation of the natural resources. Due to its remarkably plain flatland features and its covering of densely populated vegetation and migratory wild animals, the park has the potential to raise consciousness for conservation among visitors. The region is the only protected area serving as a greenbelt that helps to alleviate the expansion of the region.

3. Global increasing demand for Ecotourism: Nature-based tourism is one of the fastest-growing tourism sectors worldwide. It depends on the conservation of natural landscapes and wildlife, so that using ecosystems in this way can jointly promote

human well-being and biodiversity conservation provided it is well managed. The local communities also aspire for such opportunities which encourage them to conserve their area by being responsible.

4.4 DISCUSSION

4.4.1 Current Status of the Park in terms of Protection

The overall result for the assessment of the current status of the park is not satisfactory and the people lack good relationships with the people the result from qualitative analysis also supports this as it assures that the park is not protected and demarcated well. In addition to that, the people around the park, as stated by the focus group discussion, kill some mammals and wild animals. Very few participants living around the park knew the park had already been established but they still regarded the land as their property and considered cutting trees for house construction and building agricultural equipment to be their right. Therefore, these results have shown that the people settled there threatened the park, this seems to be due to their limited awareness about the protected area management and an inability to get equal benefits from the ecosystem.

The number of residents around the park also shows a radical increase which could be a major concern for the protection of the park and biodiversity in addition the expansion and preparation of the farm even by using fire especially during winter season. According to (Salafask et al., 2008), the major threats of protected areas are urbanization, agricultural expansion, accessibility and resource extraction.

4.4.2 Challenges of Gibe National park conservation

The result of this study as indicated by the focus group discussion, and the key informant interview that the major conservation challenges of Gibe national park is from the point of legal ground, human encroachment, human wild life conflict; management of the park; local community neighboring the park; the status and structure of the park. Higher Officials Participants also reported that officials allowed investors to conduct agricultural practices at the edge of the park. These investors were directly affecting the protected area by

introducing domestic species, manipulating wild animal habitats, burning trees, and carrying out illegal agricultural practices.

This result also supported by survey as indicated in the table which suggests that there are resources in the park that need protection and that human activities such as farming, livestock grazing, and cutting trees pose significant challenges to the park's protection. These challenges have implications for the Gibe Sheleko national Park, as there are significant threat to the park's biodiversity, especially the survival of endangered species such as hippos, lions and endemic birds. The overuse of natural resources by local communities for subsistence and income generation exacerbates the problem. The study by Salafask et al., 2008 also reported that the major threats of protected areas are urbanization, agricultural expansion, accessibility and resource extraction.

One of the greatest challenges of the park in the study area found to be recurrent fire, which is a critical factor that devastates wildlife and plant resources, and this is generally caused by farmers who seek to raise new grass especially in January and March for and for road purpose. Pasture management system using fire practice was also documented in other National Parks of Ethiopia such as Nechisar National Park (Chanie and Tesfaye, 2015), Kafta Sheraro National Park (Berihun et al., 2016) and Senkele Swayne's Hartebeest Sanctuary (Alemkere, 2018). According to Alemkere (2018), the local community in Senkele Swayne's Hartebeest Sanctuary practice fire to reduce or avoid cattle pests such as ticks. However, peak fire incidence may have negative impact on the existing wildlife habitat, breeding sites and it may also lead to death for slow moving animals.

In the study area, human wild life conflict is the main challenge to the Gibe Sheleko National Park. Although conflict intensity, species involved, crop types and damages vary, this type of conflict has also been recorded in different protected areas of Ethiopia such as Kafta Sheraro National Park (Berihun et al., 2016), Chebera Churchura National Park (Chebera Churchura National Park). Livestock destruction are common forms of human-wildlife conflict and have a near-global distribution in developing countries, including other African regions. (Long et al., 2020). This may be related to the abundance, species richness and wide geographical distribution of crop raiders as well as the global distribution of humans. For example, agricultural activities form the backbone of

most rural populations in African regions, especially Ethiopia; This practice can constitute a source of conflict between humans and wildlife.

Result from both qualitative and quantitative data confirm and suggest the need for improvement regarding the effective management and enforcement of national park management policies that has led to poor management and disputes over park land ownership. Furthermore, regional and district management officials and decision makers had not taken immediate action to prevent such activities. Applying an effective policy about protected area conservation and ecosystem services provision that can use a participatory approach is vital to facilitate the mission from both social-economic and ecological perspectives (Scolozzi, et al 2014).

4.4.3 Opportunities of Gibe national park conservation

In the study area there are different opportunities of the Gibe national park mainly in terms of national policy governing the park, and financial source.

One of the greatest opportunities in the study area is the opportunities that related with the availability of concerned stakeholder in and around the park as well as the documented policy and proclamation about the park use. Proclamation No.541/2007 Development, Conservation and Use of Wildlife and Regulation no.163/2008, the development, conservation and use of wildlife create other opportunities for the management of protected species. To achieve the goal of conservation and management of protected area, the promulgation declaration and regulation of wildlife development and use are of utmost importance, which emphasizes the tripartite role of government, community, investors and development NGO (Seifu, 2011). The other study conducted by Haile, 2020 on “opportunities and challenges on conservation of Ambatara protected area, Sede Muja district, Ethiopia” also confirmed that, the proclamation and regulation of wildlife conservations have a positive contribution to the establishment and conservations of protected area.

This study find out that the park has potential opportunities of becoming finical source that recognized by the local people around the park. Because of the availability of different ecosystem service in the area such as of natural hot spring; the Gibe river around the park that could be used for fish production as and some plant specious which is used for honey production. This result is also consistent with the study conducted on challenges of Gibe National park by confirming that the local people also knew the park provided ecosystem services, such as recreation (natural views and wild animals), hot spring, and small streams as sources of holy water and fishing activities as a source of food (Alemneh, 2015). According to Haile (2020) wildlife conservation promotes both the quality of the local people's living and the conservation of resources in the area. As indicted by Young (2012) protected areas are the main focus for the maintenance of biological diversity and contribute for economic developments of a nation.

However, the local people in the study area need extra benefits that directly impact their livelihood. If they do not obtain enough benefits, they may read just the protected area in some ways that affect the conservation goals and increase species extinction in the park. The community can make a decision about protecting the ecosystem (Tisdell and Wilson, 2003) if awareness is created about the benefits of protected habitats. Benefit sharing and the inclusion of local people in the protected area's management can improve local support for conservation (Tessema, 2010).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. CONCLUSION

Considering the data analysis and the major findings, which were drawn from the analysis, the following conclusions could be drawn.

In conclusion, the status of the park appears to be concerning, as there is a lack of awareness and understanding among local communities regarding its purpose and benefits. A majority of the residents do not know why the park is formed and do not believe it benefits the community. However, there is some recognition of the importance of wildlife and a desire to be involved in park management. The current status of Gibe Sheleko National Park is concerning in terms of wildlife conservation and forest development. The decline in biodiversity, particularly of hippopotamuses, lions, and endemic bird species, is alarming. Human-wildlife conflict is a significant threat to the park's protection, as local communities kill wild animals to protect their crops. The failure to enforce policies governing the park, including demarcation and forest development, conservation, and utilization regulations, has led to mismanagement and contested ownership of parkland. Additionally, traditional farming practices such as clearing areas using wildfire pose a serious threat to plant and animal biodiversity in the park. The majority of respondents also feel that the current status of the park is not satisfactory.

In conclusion of the challenges of the park, the land as a resource that needs protection, followed by farming, fuel wood, and hunting. Human encroachment and the expansion of farmland were identified as the most significant challenges to the park's protection, along with livestock grazing, fire, cutting trees, and settlements. These findings highlight the importance of implementing measures to address these challenges and protect the park's resources for future generations

These challenges pose a significant threat to the biodiversity of the park, particularly to the survival of endangered species such as hippopotamuses, lions, and endemic bird species.

The overutilization of natural resources by local communities for subsistence and income generation exacerbates the problem. The lack of effective management and enforcement of policies governing the park has led to mismanagement and contested ownership of parkland.

The challenges facing the conservation of the Gibe Sheleko National Park are complex and require a multifaceted approach to address them. The lack of clear communication channels and conflicting interests between the park management and local communities must be addressed through strengthened partnerships and involvement of local communities in decision-making processes. Additionally, sustainable economic activities such as ecotourism and sustainable agriculture practices can provide income for local communities while reducing the impact on the park's ecosystem. Investing in capacity building for park staff and local communities can improve management and ensure that economic activities are sustainable and environmentally responsible.

In conclusion, opportunities to conservation of the Gibe Sheleko National Park has opportunities for conservation and income generation through the availability of natural resources such as the Gibe river and plant species. The park's legal establishment and potential for transnational and international biosphere reserve status also provide political significance.

The opportunities for income generation and sustainable development in the Gibe Sheleko National Park are significant. The park's location and natural resources offer a range of possibilities for ecotourism, agriculture, and other forms of economic activity. Additionally, the park benefits from clear national policies and regulations governing its use and management. To fully realize these opportunities, however, it will be necessary to invest in infrastructure, capacity building, and community engagement. With the right support, the Gibe Sheleko National Park can become a model for sustainable development in Ethiopia and beyond.

5.2. RECOMMENDATION

Based on the conclusions derived from the findings of the data analyzed, the following recommendations were made to protect the park's resources:

- ❖ The Gurage zonal and weredas culture and tourism office should provide awareness creation program to increase community awareness and engagement: It is crucial to raise awareness among local communities about the purpose and benefits of the park. This can be achieved through community meetings, workshops, and outreach programs. Involving local communities in park management and decision-making can also help build support for the park.
- ❖ SNNP regional culture and tourism office should provide training for scouts regarding on strengthen wildlife conservation, create awareness about anti-poaching measures, and the establishment of wildlife corridors to reduce human-wildlife conflict.
- ❖ SNNP regional culture and tourism office should work in collaboration with scouts to enforce policies and regulations: The failure to enforce policies governing the park has led to mismanagement and contested ownership of parkland. It is essential to ensure that park regulations are enforced, including demarcation and forest development, conservation, and utilization regulations.
- ❖ Gurage zone culture and tourism office in collaboration with office of agriculture should promote sustainable farming practices traditional farming practices such as clearing areas using wildfire pose a serious threat to plant and animal biodiversity in the park. Promoting sustainable farming practices such as agroforestry and organic farming can help reduce the impact of farming on the park's ecosystem.
- ❖ SNNP regional culture and tourism office should invest in infrastructure and capacity building: To fully realize the potential of the park for income generation and sustainable development, it is necessary to invest in infrastructure such as roads, visitor centers, and accommodation facilities. Capacity building for park staff and local communities can also help improve park management and increase community involvement in park activities.

- ❖ Gurage zone culture and tourism office and concerned weredas forest and environmental offices should develop and implement a comprehensive management plan that addresses the challenges identified in the survey, including human encroachment, livestock grazing, fire, cutting trees, and settlements.
- ❖ Regional and zonal culture and tourism office have the responsibility to develop and implement a comprehensive ecotourism plan that highlights the park's unique natural resources and cultural heritage. This plan should include the development of tourism infrastructure, such as lodges, trails, and visitor centers.
- ❖ Regional and zonal culture and tourism office should strengthen partnerships with local communities and involve them in decision-making processes related to park management and economic development. This will build support for conservation efforts and ensure that economic benefits are shared equitably.
- ❖ SNNP regional culture and tourism office should pursue transnational and international biosphere reserve status to increase the park's political significance and attract funding for conservation and development projects.
- ❖ Regional and zonal culture and tourism office should invest in capacity building for park staff and local communities to improve management and ensure that economic activities are sustainable and environmentally responsible.
- ❖ The park management is a need for clear communication channels between park management and local communities to mitigate conflicts of interest

By taking these actions, it is possible to protect the park's resources for future generations, ensure the survival of endangered species and ensure that the park is not only a haven for biodiversity but also a source of economic opportunity and sustainable development for the surrounding communities.

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APPENDIX
WOLKITE UNIVERSITY
SCHOOL OF GRADUATE STUDIES
QUESTIONNAIRES TO BE FILLED BY HOUSEHOLD

The basic objectives of this survey is to explore the Conservation challenges and opportunities of Gibe Sheleko National Park, Southwestern Ethiopia by way of analyzing the participation of local community in using park resource and identifies how the various socio-economic, cultural and institutional factors hinders protected area management and household livelihood.

Dear Respondents

This questionnaire has the research purpose. The outcome of this research will help to identify the challenges of protected area by investigating the participation of local community in Gibe Sheleko National Park, Southwestern Ethiopia. It is believed that the study will gather useful information for the community, the government and non-government organizations in designing mechanisms to ensure effective management of protected area. There for, I kindly request the cooperation of respondents in filling out the questionnaires. I confirm you that all data will be treated confidentially.

I. Demographic and Household Profile

1. Code of respondent _____ Age _____ Sex _____ Peasant association _____
2. Family size Male _____ Female ----- total ----- occupation _____.
3. Educational status
A. illiterate B. Read and write only C. Elementary D. junior secondary school and above.
4. Land holding size (ha) A. < 0.2 h B. 0.3 - 0.4 ha C. 0.5 – 0.8 ha D. > 0.8 ha
5. Marital status-----1. Married 2. Unmarried 3. Divorced 4. Separated 5. Widowed.
6. Number of livestock-- 1. Cattle--- 2. Sheep --- 3. Goats ---- 4. Donkeys---- 5. Others

7. What activities other than farming do you do? 1. Petty trade. 2. Collecting and selling fire wood. 3. Pottery. 4. Wavering. 5. Others.
8. What are your major sources of income? A / Selling cereal croup, such as maize, Sorghum Teff etc. B /sell of honey. C /sell of fruit and vegetables. D/ sell of fuel wood. E. Other

II. Challenges and Opportunities of park conservation

9. Is there any resources that you have been prevented from the Park? Yes/No. If yes, what type of the recourse? And mention and describe the reasons.
10. Which do you think is the most serious problem/challenge with regarding to Gibe park protection? 1. Human encroachment 2. Expansion of farmland 3. Livestock grazing 4. Settlements 5. Fire 6. Hunting wild animals 7. Cutting living trees 8. Construction roads 9. others
11. Do you participate on hunting wild Animals? Yes/No. If No Which community? And what type of Animal they hunt?
12. Are there any oppotunities toward conserving the protected area? If yes
13. What do you think does the oppotunities of the protected area to be conserved?

III. The current status of Gibe Sheleko National Park

14. Do you know why the park was formed? A. conservation B. tourism C doesn't know D. Other.
15. Do you think that the presence of the Park benefited the community? Yes/No If yes in what way?
16. Do you believe wildlife is a useful resource to be conserved? Yes / no
17. Do you want to involve yourself in managing the protected area? Yes /No If no, why?
18. For what purpose do you use grass from the park? a. grazing b. House construction c. Harvest and sell to generate income
19. New huts are built in and around the park, do you support this condition? Yes/ No If yes why? If no. why?
20. How could you describe your relationship with conservationists? a. Smooth b. medium c. Not good
21. What are the main factors that contributed for the above relationship?

22. Is there any traditional hunter in your area?
23. Do you like the existence of the park nearby you Yes/ No If no, why?
24. Do you think the presence of people and livestock in the conservation area affects the park? Yes/No If yes in what way
25. What is the current status of the protected area in terms of protection? 1. Very good
2. Good 3. Satisfactory 4. Not at All
26. How do you prefer the area to be managed in the future?
27. Does the park was clearly remarketed? Yes/ No. If No does it create a problem? What problems 1/----- 2/-----

FGD for Key informants

28. What are the great challenges of the park?
29. Is there any kinds of park resource can you use?
30. What benefits do you get improved your lived hood?
31. What is your relationship between the parks?
32. Which communities actually participate in using park resource?
33. Has every, been conflict about using park resource? For example, grazing, hunting, timbering etc.
34. What are the factors to participate local community on the park resource?
35. Have you expected any improvement on the status of the park?
36. What do you think are the challenges of Maze National park?

Interview Guides Presented for Stakeholders

37. Who owns and uses the area before introduction to national park? And, in what condition?
38. Is there any conservation policy that implemented for this protected Area? Do you think park conservation plan is being implemented effectively?
39. Are you comfortable by law of park conservation plan? Is there treating to the park from the surrounding community?
40. Which local community groups more depend on the park for their economic benefits?
41. Does the park face any challenges from outside? If yes, what are there?

42. How do you accommodate the interest of different group around the park? For example fuel wood seller, searching for grazing, farmland, and bush meet.
43. Are there any opportunities toward conserving the protected area? If yes What are those?