

COLLEGE OF AGRICULTURE AND NATURAL RESOURCE

DEPARTMENT OF WILDLIFE AND ECOTOURISMANAGEMENT

THE IMPACT OF HUMAN SETTLEMENT ON WILDLIFE MANAGEMENT IN GIBE SHELEKO NATIONAL PARK, GURAGE ZONE, WOLKITE, ETHIOPIA

SENIOR RESEARCH PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF WILDLIFE AND ECOTOURISM MANAGEMENT IN PARTIAL FULFILLMENT OF BACHELOR DEGREE OF SCIENCE (BSC.) IN WILDLIFE AND ECOTOURISM.

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Abbreviation and Acronyms

AA- - - - - - - - Addis Ababa

GSNP- - - - - Gibe Sheleko National Park

SNNP - - - - - Nouth Nation Nationality of People

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Abstract

These study was focused on the impact of human settlements on wildlife management in Gibe Sheleko National park. the purpose of this study was to recognized or identify the factors that affect wildlife and their habitat in the park and also how to minimize or reduce those factors to manage the wildlife and their habitat. The data was collect by using either primary or secondary data collection. The primary data was gather by the way of survey questionnaire, interview and filed observation. Secondary data also was collect through available sources such as books, magazines, journal and unpublished data. Based on the data Gibe Sheleko national park has been affected by different human activities which the settlers practice in the park, Such as deforestation , agricultural expansion , poaching and construction of dump &buildings. As the result of this the number of wildlife found the national park decrease from time to time. So different organization and local community has their own accountability and responsivlity in order to reduce or minimize the negative impact of human settlements on wildlife management and to manage the park for sustainable conservation and also to keep safety of the park . Also the local communities should be make collaboration (working together) with tourism sector, wildlife sector, education sector and other different sectors or organization, in order to manage the park and the wildlife that living inside the park for sustainable conservation by identifying the useful solutions for the overcome challenge.

Key Words: Human settlements, Wildlife management, Gibe Sheleko National Park.

1. INTRODUCTION

1.1. Background of the study

Today, protected areas are aimed to conserve biodiversity and large scale natural ecosystems. The tendency of establishing human settlements in previously wildlife areas is becoming common and endangering the future life of wildlife species (Ogutu ***et al.,*** 2012). For many years, the natural habitats of Ethiopia have been altered by human settlement/pressures including overgrazing, which affect the wildlife. Majority of livestock production in Ethiopia takes place in afro-alpine grasslands (Vial ***et al.,*** 2011). However, understanding about specific threats to species like Mountain Nyala (*Tragelaphusbuxtoni*) is crucially lacking. Most parts of the historical range of Mountain Nyala in Ethiopia have been occupied by human settlements and cultivation (Evangelista ***et al.,*** 2007). In such areas, its populations have shown considerable decline (Hillman,1988).

Gibe Sheleko National Park is primarily known in it diverse wildlife species but now a day has been decreasing from time to time due to population growth, habitat degradation, climate change, different human activities and land use change. Human population growth bordering protected areas is high and has become a serious threat to the management of wildlife species all over Africa (Newmark ***et al.,*** 1994). Many protected areas in Ethiopia are becoming isolated and the reasons for the isolation include growing human population in areas adjacent to protected areas and land use change towards agriculture, infrastructure, and settlement in areas that were previously unpopulated.

1.2. Statement of the Problem

Gibe Sheleko national park has national significance regarding conservation of biodiversity. currently, human encroachment in terms of the density and wild life with their habitat have faced change their behavior challenging because of deforestation, agricultural expansion, settlements of local community in the area, also Gibe Sheleko national park and its surrounding is endowed with diverse natural resource, currently it degrading at fast rate and the land covered by natural forest is converted into

agricultural land and settlement.

Consequently, the people around the park who entirely depend on mixed agricultural production complain wild life which damage their crop and vegetable.

Moreover, other people stuff in the park and outside and household in the park complain that wild life disturb by entering into their home, and take out some things like foods, soap and stationary material. Thus this study attempts to examine the impact of human settlement on wildlife in Gibe Sheleko national park. In Gibe Sheleko National Park there were rapid village expansion in the park. Parallel to village expansion, agricultural lands are expanding, forests were being destroyed, overgrazing is overwhelming and forest fire is recurrented. If conservation efforts are not successful and people continue to exploit the resources in an unsustainable way, more species of mammals would go extinct than any area of equivalent size on the globe. Therefore, this project is emphasizing on the impact of human settlement on wildlife management in Gibe Sheleko national park in Ethiopia.

1.4 Scope of the study

The objective of this research is to identify the impact of human settlement on wildlife management in Gibe Sheleko national park. I have selected all conserved area mainly by focusing the central part of the park. Because ; most of people were settled around the centre of the park specially near the AA to Jimma road which crossed centre of park. The research would be considering impact of human settlement on wildlife management in Gibe Sheleko national park.

1.5 Limitation of study

There are different limitation in my research study . The main limitation of the study was time and budget constraint, also there was a limited number of respondents. Because of this case I have not collected more information and I had not get full respondents. By this reason I have got 50 respondents. There is not enough reference material for my research, and also had not get more access of equipment for analyses and collection data for research study.

1.3 Objective of the Study

1.3.1 General objective

The general objective of the research is to assess the impact of human settlement on wildlife management in Gibe Sheleko national park.

1.3.2 Specific objectives

- To identify the impact of human settlement on wildlife management in Gibe Sheleko national park.
- To determine the potential opportunities and challenges of Gibe Sheleko national parks.
- To ditermine human activities which affect wild animal species found in Gibe Sheleko National Park.

1.4 Research questions

1. What type of human activities which affect population wildlife and it habitat in GSNP? 2. What are the negative effects of human activities on wildlife management in GSNP?

1.5 significance of the study

This will be conducted to know the impact of human activity which affect wildlife management in Gibe Sheleko national park and the outcome of this study will reduce the impact of human activities on wildlife management in the national park. The result of this study ,generally ,might help in different aspect to provide good in site for wildlife manager, local community ,the natural resource management expertise and the society at large .finally, the study provide baseline information for other researcher to undertake similar study elsewhere. It was provide the necessarily solutions for problems of the study area. Moreover, the study would have the following benefit :- To create awareness of the local communities about how to manage or conserve the park

and the wildlife that living it, To motivate the active participation of the local communities about for sustainable conservation of the park, The local communities should be identify and reduce the different human activities that affect the wildlife and its habitat .

2. LITERATURE REVIEW

2.1 Human settlement on Gibe Sheleko National Park

2.1.1. Human settlement definition

A human settlement is defined as a place inhabited more or less permanently. It includes buildings in which they live or use and the paths and streets over which they travel. It also includes the temporary camps of the hunters and herders.
Settlements are classified on the basis of size and function into Urban and Rural.

1. Urban settlements:
These types of settlement are nodal in character and have secondary and tertiary activities. The chief occupation of the people of urban areas is non-agricultural i.e. industry, trade and services. The major function of an urban area are trades and commerce, transport and communication, mining and manufacturing, defense, administration, cultural land recreational activities. Population density is high and the settlement size is large.

2. Rural settlements:
These settlements are chiefly concerned with primary activities such as agriculture, mining, fishing, forestry etc. Most of the people of rural settlement are engaged in agricultural work. The major function of rural settlement is agriculture and each settlement specializes in various activities. Population density is small and the

settlement size is small.

Rural settlements are influenced by following factors:

i. ***Water Supply;*** usually rural settlements are located near water bodies such as rivers, lakes, and springs where water can be easily obtained. The need for water drives people to settle in islands surrounded by swamps or low lying river banks. Water supply is main factor because water is used for drinking, cooking and washing, rivers and lakes can be used to irrigate farm land, water bodies also have fish which can be caught for diet and navigable rivers and lakes can be used for transportation.

ii. ***Land:*** People choose to settle near fertile lands suitable for agriculture. Early settlers chose plain areas with fertile soils. In Europe villages are found near gently sloping land, in south East Asia villages are near low lying river valleys and coastal plains suited for wet rice cultivation.

iii. ***Upland:*** Villages are located on uplands which is not prone to flooding. Thus, in low lying river basins people chose to settle on terraces and levees which are "dry points". In tropical countries people build their houses on stilts near marshy lands to protect themselves from flood, insects and animal pests.

iv. ***Building Material:*** The availability of building materials- wood, stone near settlements is another factor.

Early villages were built in forests where wood was plentiful. In African Savanna's mud bricks are used as building materials and the Eskimos, in Polar Regions, use ice blocks to construct igloos.

v. ***Defense:*** During the times of political instability, war, aggression of neighboring groups villages were built on defensive hills and islands. In Nigeria, villages are built on upstanding rocks; in India most of the forts are located on hills. Human disturbance can influence wildlife behavior, which can have implication for wildlife population, for example wildlife may be more vigilant near human disturbance, resulting in decreased forage intake reduce reproductive success. We measured the effect of human activity compared to predator and other environmental factor on the behaviors wild animal in human - dominated landscape (Alberta, 2013).

2.2 Human activity that affect human wildlife management

There are various activity that takes place on the wildlife and their habitat in and around the park by human in positively and negatively .The positive activities:- conservation of wildlife and their habitat ,preservation of the endangered species in the area, expand good breeding strategy by good mechanism ,against or translocation the exotic species from the native species ,respect the welfare and right of the animal ,prepare good preference food for the animal but not affect the natural food of the animal .The negative activities :- human activities are affect the wildlife and their habitat by the following factor :- poaching/ illegal haunting ,over exploitation , deforestation ,burn by artificial fire of the wildlife habitat ,construction of building on the wildlife area, change wildlife habitat in to agricultural land and investment area and grazing the grass by cattle in and around the park.

2.2.1 Deforestation and forest degradation

Deforestation is the conservation of forest to alternative permanent non- forested land use such as agriculture ,grazing or urban development .It is the removal of trees and other vegetation (for fire wood, commercial ,logging or to land for farming and settlement .This increase run off and subsequent erosion causes sedimentation in river channel ,which decrease their capacity .Deforestation resulting land degradation is the global threat of many wild animal with its natural habitat and affect the wild animal lifestyle in their the preferred habitat .The extensive deforestation has also lead to the extinction of various biota as a resulting in significant of biodiversity loss.

Some of the major cause of deforestation are uncontrolled logging, illegal charcoal production and fuel wood collection that directly influence large wildlife habitat ,where tourism is dependent .moreover such activities impose to decline the scenic beauty of the park. Which also affect tourism and wilderness.

2.2.2 Poaching (illegal hunting)

Poaching and illegal wildlife trade activities in and around the park as well as the un wise use of natural resource have been the major problem facing the park and have led to the extinction of some fauna species .It leads to detrimental environmental ,economic and social consequence .over time, the international community has become aware of fact

that poaching is the most immediate and direct threat to wildlife in Africa making its upward trend a cause of serious consenting this case poaching has been practiced for income generation and other agricultural and industrial product.

2.3 Consequences of human activities on wildlife management

2.3.1 Habitat destruction

When human destroy wild land to build homes, shopping in park, the land is changed. The animal that once lived there, may disappear .some can more to new homes areas. There is not enough food ,water or shelter for so many animals, So many of the wildanimal will die, when farmers sprig chemical on their crops to save them from pests(bugs and modes and things that eat the plant),the chemical get into the water and into the soil.

The birds and mammals who eat those poised bugs may also die, or they can't reproductive, or their offspring die young(Toll,2005).

2.3.2 Wildlife behavior change

When humans made different activities for instance feed wild animal change their behavior, Behavior can indicate how animal respond to disturbance into their environmental. For instance, vigilance, or scanning of the environmental, is adapted by wide range of birds and mammals to increase the probability of detecting predators or other source of disturbance including humans.

2.4. 2 Conservation Strategies or mitigation measures to overcome challenges of Wildlife Management

In order to minimize or reduce the negative impact human activities on wildlife management in and around the Gibe Sheleko National Park. We and local community should be identify the different threat that affect the wildlife and its habitat and we should be find the correct solution to overcome challenges for sustainable conservation of the park. So we should be follow the following management and conservation strategies of the park.

* Strong institution to conserve GSNP.
* Protection and conservation of the GSNP.
* Promotion of sustainable utilization of the resource around park area.
* Full participation of local community.
* To rehabilitee and protect the remnant wildlife resource and important ecosystem .
* To raise public awareness on the importance of conserving park.
* Habitat improvement of wildlife corridor.
* Finding find and project to maintain detail the research.

2.5. Encroachment to protected areas and human-wildlife conflicts

Through high population pressures, the rise in demand for land for cultivation means that in many areas much of the suitable arable land is already cultivated. More marginal land is therefore tilled and farming goes right up to boundary of wilderness and protected areas. Natural succession is likely to result in generally increased biodiversity and improved ecological function.

3. RESEARCH METHODOLOGY

3.1. Description of the study area

GSNP is located in Gurage Zone, southern Ethiopia. It is 170 and 18km far from southwestern of Addis Ababa and Wolkite, respectively. It is geographically located from $05^0$25' N to $06^0$15'N and $35^0$24E Altitude of the area ranges from 1050 to 1835 m above sea level. The Park is
bounded by three districts namely Cheha, Abeshenge and Enemorener(Alemnh,2015).

GSNP is designed as a regional park since 2009 due to its high endemism and biodiversity conservation importance and home for numerous migratory and endemic (*Belete. Kassahun, Asalefw and Alemneh (2017),*bird species. It covers 360 km2, and characterized by heterogeneous landscape, flora, fauna and habitat types and it dissected by deep gorges of the Gilgel Gibe and Wabe rivers.

The annual rainfall is high and reliable, averagically 1100mm/year with low inter-annual variation and the temperature ranges from 7.5– 25oC. The rainfall in the area is

bimodal (i.e. having two rainy seasons). The dry season include December, January, February and March and rainy seasons includes June, July and August. Purposive sampling technique was employed to select the sample Keble's or locality from the selected districts based on the recommendation of the park officials by considering the level interaction, distance and dependency on the national park (Alemneh, 2015)

The area has rich and intact vegetation cover. The area covers grasslands with scattered trees, woodland, mountain & riverine forest. The park is also inhabited by an extraordinary composition of fauna. Recent records show that about 16 species of larger mammals inhabit the park. Some of the mammals inhabited the area include: Warthog, Common bushbuck, Lion, Leopard, and Black & White colobus & others. The Gibe River that flows across the park hosts various species of fishes, Water fowls, Hippopotamus & Crocodiles.

3.2 sampling design

3.2.1 Sample design for Key Informants Selection

The researcher have selected the respondents for collecting the data about the impact of human settlements on wild life management in GSNP. Under this study the researcher have taken as a sample categories such as ; key informant like local community and GSNP staff.

From the key informant are 10 and 15 respondent of respectively with in purposivly under the criteria of; Have more knowledgeable about the park and the wild life living in the GSNP park; They are leadership and also they are a professional.

3.2.2 Sample design for Households Selection

The researcher have selected respondents to collect more information about the impact of human settlements on wild life management in the park. We have selected 5 women and 10 mens among those who settled and living in the park for criteria:- They know more information about the park ; They know about wild life and its habitat around their home ; They living in the national park.

3.3 Sampling techniques

This study was directed through judgment sampling technique .The reason the studied

selected respondent judgment was based on relevant evidence about impact on human settlement on wildlife management in Gibe Sheleko national park. The study was carried out through purposive sampling technique by selecting 50 respondents from those who settled in the national park.

3.4 Sampling size

The study was supported by choosing 50 respondents from those found in the study area and from the total house holds living in the national park.

3.5 Data Collection Methods

The researcher have collected data either by primary or secondary ways about impact of human settlements on wild life management in GSNP. Based on those method, we have also collected different information or data for our outcomes. This data collection was taken 5 days buy not measure with minutes in order to get more information about our research study by both primary data and secondary method of data collection .

3.5.1 Primary data collection

The researcher have collected data in primary way about the impact of human settlement on wildlife management in Gibe Shalsko National Park. The primary source of data were used (i.e,observation,survey questionnaire and interview) with local respondents settled in the national park and also with those who works in the museum(staff).

3.5.1.1 Field observation

Field observation was used about the impact of human settlements on wildlife management in GSNP and about the objective of this title:-there different human settlement activities that affect wildlife management such as :- agricultural expansion , fuel wood collection , grazing , cutting tree, e.t.c . Effects of human activities on wildlife management such as :- wildlife habitat change , disturbance of wildlife ,wildlife migration ,wildlife starvation & change their feeding system by human and conservation or mitigation strategies that measure the overcome challenges for sustainable conservation of the park such as :- have a good a positive perspectives about the park , create awareness for the local community about the park , don't bring

or enter unnecessary thing to the park , don't feed the wildlife artificially by changing the natural feeding system through taking note what the researcher have observed in the field study of the area.

3.5.1.2 Interview

Under this, The researcher have collected data primarily by transfer idea or make interview under structured and unstructured with the key informants and the local community about the impact of human settlements on wildlife management in the national park.

3.5 .1.3 Survey Questionnaires

Under this, research contains 19 questions which researcher have distributed those questions for the total of 50 respondents that means to collect data primarily by preparing survey question{both open and closed ended } for the key informant and house hold about the impact of human settlements on wildlife managements in Gibe Sheleko national park. Through this survey questionnaires we have got information for our research. This survey questionnaire have took 5 days for collect the data but not measure with minutes in order we have get more information about our research study.

3.6 Secondary Sources

Secondary source of data were used in order to clear our work getting experience from previously collected more knowledge ,for example ,Magazine ,Journal ,Books and Internet.

The researcher have collected more information about the impact of human settlement on wildlife management in GSNP by secondary data such as from document, journal, internet and website.

3.7 Data Analysis

The data was analyzed by using simple descriptive (qualitative) method and quantitative (numerical) method. The result were interpreted the data based on the result from survey questionnaire, interview and filed observation. The data analyzed

was done by using tables and picture.

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Demographic characteristics of respondents

As shown in the below table, the majority of respondents 34 (68%) were male and the age group most respondents 20(40%) were between 47-56, few respondents on this age group are 2(4%) were between 37-46. The educational level of respondents; most of them about 16(32%) were literate and the least of them about 1(2%) were secondary school. The major livelihood of most respondent 18(36%) were based on farming and few respondent 5(10%) were based on daily employee.

Demographic information of respondents

Varibles	Section / categories	Respondents	Percentage

			(%)
Sex	female(F)	16	32
	Male (M)	34	68
	Total	50	100
Age	18-25	4	8
	26-36	11	22
	37-46	2	4
	47-56	20	40
	>57	13	26
Livelihood	farming	18	36
	Trade	11	22
	daily employee	5	10
Educational level	Illiterate	6	28
	Literate	16	32
	not read and write	4	12
	elementary school	3	6
	secondary school	1	2

Source: Field Survey (2019)

Table:-1, Demographic information of respondents

4.1.2 Human activities that affect wildlife management

Respondents were asked whether human settlements affecting the wildlife and their habitat. As mentioned on the below table, all of the respondents expressed that, the human settlements have a great negative impact on wildlife management in the national park. According to the response of some respondents{17(34%) } among the impacts of human settlements in the national park one is expansion of farmland. Because of the reason most of the time this activity takes place by the local people and this activity is highly affected on wildlife management in the national park.

But one respondent 1(2%) were gave response us among the human activities that affect the wildlife and its habitat in the park is constructed road. Because the bus disturbance of day and night time affect the living ways wildlife in the national park.

Presence of human activity on wildlife management

Human activities	Number of respondent (n=50)	Percentage (%)

Farmland expansion	17	34
Urbanization	2	4
Human settlement	9	18
Road construction	1	2
Fuel wood collection	11	22
Grazing	4	8
Giving food for wildlife	6	12

Source: Field Survey (2019)

Table 2:- Presence of human activity on wildlife management



Figure 1:Road construction(Photo by Abdi,2019)



Figure 2:Farmland expansion and human settlements(Photo by Abdi , 2019)



Figure 3; Grazing (Photo by Abdi, 2019)

4.1.3 Effects of human activities on wildlife management

Respondent were asked about the impact of human settlements on wildlife management in the GSNP. As mentioned in the below table, all respondents were gave response for me about the impact of human settlements on wildlife management in National Park. Most of respondents 15(30%) were gave response among the impacts of human settlements: wildlife population decrease , because of the reason various human activities that take place in the national park, so by this case many wild populations are affected and decrease their number .

while the least respondents 3 (6%) were gave response among the impacts of human settlements on the wildlife reproduction period.

Consequence of human activities on human wildlife management

Effects	Number of respondent	Percentage (%)
Habitat loss	12	24
food shortage	4	8
wildlife population decrease	15	30
wildlife behavioral change	8	16
Affect wildlife reproduction period	3	6
Wildlife migration	8	16

Source: Field Survey (2019)

Table:- 3, Consequence of human activities on human wildlife management

4.1.4 Conservation strategies or mitigation measures to overcome challenges for sustainable conservation of the park

Respondents were asked about the conservation or mitigation strategies to measure the negative impacts of human settlements on wildlife management in the GSNP. As shown in the below table . all respondents were gave response for me about the conservation or mitigation strategies to measure the overcome challenge on wildlife management in Gibe Shaleko national park for sustainable conservation .

The most respondents 13(26%) were gave response based on create community awareness about the park . the reason that , They said , create community awareness about the park is the good strategies at first time .

while few respondents 3(6%) were gave based on community based development programme, They said, conservation and mitigation strategies can be managed by reducing the negative impact of human settlements in GSNP.

Conservation or mitigation strategies to measure the overcome challenges for sustainable conservation of the park.

Conservation or mitigation measures for overcome challenges	Number of respondents	Percentage (%)
Strong institution to conserve the park	5	10
Create community awareness about the park	13	26
Full participation of the community in the park	6	12
Community based development program	3	6
Respect role and regulation of the park	10	20
Should have strong management techniques or strategies	8	16
Keeping the safety of the park	5	10

Source: Field Survey (2019)

Table;- 4, Conservation or mitigation strategies to measure the overcome

challenges for sustainable conservation of the park.

The human settlements that affect the wildlife management in the park have happened different negative factors such as :- deforestation ,artificial fire, poaching or illegal hunting, spread unnecessary things or poisonings in the park and constructing building e.t.c. So the local community and other organization or stakeholders should be use the good mechanism in order to reduce or minimize those factors in the park. The following solutions are needed in addition to the above conservation strategies .such as :-

- To build the wise use of wildlife resource
- local communities must be participate in discussoin making from planning to Implementation
- To create equal distribution of benefits for the communities
- To create awareness of the local communities , to create the community based conservation of wildlife
- To implement the ground rule and regulation of the park
- To create alternative livelihood option of the local communities

4.2 Discussions

Respondents(key informants GSNP staff worker and local household or settler) were asked about the different impact human settlements on human wildlife management in and Gibe National Park. As they have said, human settlements can affect wildlife population either positively or negatively. When some people settled in national park they must practices some activities that are likely to have adverse effects which can be divided in to those that function primarily by altering the physical environment in relatively permanent and those that cause change to animal behavior. Activities that alter the wildlife and its habitat, behavior includes:-farm land expansion, fuel, wood collection, urbanization ,road construction ,grazing. Respondent were also asked about the impacts of human settlement activities ,They were answered those activities that are practiced by settlers, are cause for habitat loss ,food shortage ,population decrease ,behavioral change of the species and affect wildlife reproduction and also respondents give information about wildlife animals impacts on their life by damaging

their maize, sorghum and other production. The crop damaged by wild animal was due to their social organization and intelligence of the animal to recognized the absence of grads and immediately rushes in to the plantation field by farming different group in different direction which damage incidence high (madden,2008) because of the difficulty to change them aware since they come to the plantation fields in different direction with large numbers and exposed to damage (Madden,2008),due to the higher relation of the wild animal with human respondents ,they take the cooked food item from the respondents house and they had broken in their home .In general, human activities were also wildlife migrate from their normal habitat had lost their freedom to live with their natural habitat. In the study ,the respondent participant in the key informants interview participant expressed the conservation strategies to measure the overcome challenge for sustainable conservation of the park by this objectives. The researcher have get the following information from our respondent and other documents. So, in order to manage or conserve those negative impacts of human settlement on wildlife management in the park by the following strategies are needed :-
Should have a good management technique ,have a community based management ,strong institution administrative to conserve the park., expand the legal status ,improve human power ,create awareness ,habitat improvement of wildlife ,keep safari of the park ,protection and conservation of the park, have a good correlation between the local community and the wildlife sector .

In the study, the respondents, key informants and staff workers expressed the cause of conflict was resulted from the increasing number of human population in the area changed their lifestyle by destroying habitat through inchrochment for agriculture and human settlement and the modification of natural habitat in to crop cultivation like maize ,products and vegetables and also lack of food for wild animal are major cause of conflict .

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The study was focused on impact of human settlements on wildlife management in Gibe Sheleko National park. the purpose of this study was to recognized or identify the

factors that affect wildlife and their habitat in the park and also how to minimize or reduce those factors to manage the wildlife and their habitat. The followings are impacts of human settlement activities that affect the wildlife management in GSNP:- Farmland expansion, fuel, wood collection and road construction, grazing and giving food for wild animal. Also those human settlement activities have negative impact such as habitat loss, food shortage, wildlife population decrease wildlife behavioral change, wildlife migration ,affect wildlife reproduction and wildlife management in the park.

There are also human settlements activities which leads to the cause of human-wildlife -conflict in the study area. this include :-human settlement increasing ,increasing human population and wildlife population ,human encroachment and lack of food for wildlife .The conflict in the study area occur at higher extent .crop damage ,taking food in disruption were the impact of conflict in the park while taking food item, disruption and property damage were the major impact with in the park. The the above listed effects of human settlements activities and human wildlife conflict also have different conservation strategies to manage or minimize those human settlement activities and cause of human wildlife conflict .like ,manage the park properly ,local people should have a good perspective for wildlife ,don't bring or enter to the park, don't change the natural feeding of wildlife by artificial feeding system, be respect the rule and regulation of the park ,don't poach the wildlife ,don't disturb the wildlife and their habitat in the park ,enhance community participation for conservation activities and implement on the ground rule and regulation of the national park. Specially, the local communities should be make collaboration (working together) with tourism sector, wildlife sector, education sector and other different sectors or organization, in order to manage the park and the wildlife that living inside the park for sustainable conservation by identifying the useful solutions for the overcome challenge.

5.2 Recommendation

Based on the result of the study, the following points, were recommended for the rural villages ,local resident ,that settled in the park, and other stakeholders :-

* local community should increase plantation will help to minimize wild animal to visit to crops .

* Extensive tree cutting should be minimized.

* Staff, guest and students should have to discourage from approaching wildlife and They also should have to stop feeding wildlife either directly or indirectly .

* Schools of wildlife and Eco-tourism management should have to educate the community settled in the park in collaboration with other stakeholders on the cause, consequence and prevention methods regarding the existing conflict.

* The SNNP National Park Office , SNNP Cultural Tourism Bureau and wildlife experter should have to educate the community about the values of conserving wildlife resource in the park.

* Government should be make community based conservation.

* Local community and government are work together.

* To awareness community and to construction wise use of wildlife resource
* Assuring integration of National, regional, local and public - private effort.

* The individual researchers dealing on the area of impacts of human settlement activities on wildlife management in the park area.

* The local communities should be make collaboration(working together)with the tourism sector , wildlife sector ,education sector and other organization in order to conserve and manage the park & the wildlife that living inside it.

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APPENDEX

WOLKITE UNIVERSITY

COLLEGE OF AGRICULTURE AND NATURAL RESOURCE

DEPARTMENT OF WILDLIFE AND ECOTOURISMANAGEMENT

Dear participants, My name is Abdi shesheraf. I come from Wolkite University, College of Agriculture and Natural Resource. I would like to thank you in advance for your participation in this study. The objective of the questionnaire is to identify the Impact of human settlement on wildlife management in Gibe Sheleko national park. I am conducting it as part of my degree program in Department of Wildlife and Ecotourism Management, at Wolkite University. I want to assure you that, your response is confidential and used only for academic purpose. Therefore; I kindly request your cooperation and patience for responding each and every question by considering importance of your valuable response to study.

Research Title: Impacts of Human Settlements on Wildlife Management In Gibe Sheleko National Park, Gurage zone, Wolkite, Ethiopia.

- **Questionnaires for Households/local community**

Interviewer ---------- Date of interviewer ----------

----------Demographic Characteristics of Respondents

- Sex/Male------ Female-----
- Age (15-20--- 20-30---- above 30-----
- Occupation: A) Government worker B) Farmer C) Personal business D) Other
- Education status : A) Un educated B) High school completed C) Elementary complete D) Other

- **Research Questions related with Variables**

  1. Do you know wildlife? A) Yes B) No

  IF yes/ No, Please explain, ----------

  - What are the human activities which affect the population of wildlife and its habitat in Gibe Sheleko National Park?
  - Agriculture expansion B) Poaching C) Unintentional fire D) Deforestation E) Illegal Settlement F) Over exploitation G) All
  - What are the negative effects/consequences of human activities on wildlife management in Gibe Sheleko National Park
  - Loss of biodiversity B) Habitat destruction C) Decline in Wildlife population D) Habitat fragmentation E) Diseases transmission F) Wildlife Migration G) All

- What happen the number of wildlife from time to time? A) Increase B) Decrease C) The same
- What should be possible conservation strategies or mitigation measures to overcome challenges and for the sustainable conservation of Gibe Sheleko National Park?

A) Should have good management techniques or strategies B) create awareness and educate the community about the wildlife C) don't bring unnecessary thing to inter the park D) The wise or proper use of wildlife resource in the park E) Don't pollute the park by different toxics F) recruit trained human power for the conservation activities

G) enhance community participation for the conservation activities

H) all I) others

- Questionnaires for Key Informants

- Demographic Characteristics of Respondents
- Sex/Male------ Female-----
- Age (15-20--- 20-30---- above 30-----
- Occupation: A) Government worker B) Farmer C) Personal business D) Other
- Education status : A) Un educated B) High school completed C) Elementary complete D) Other
- **Research Questions related with Variables**
- Do you know about wildlife? A) Yes B) No

  If yes/No, Explain .----------

- Is there human wildlife conflict in Gibe Sheleko National Park? A) yes B) No
- What are the Human activities which affect the population of wildlife and its habitat in Gibe Sheleko National Park?
- What are the negative negative effects of human activities on wildlife management in GSNP?
- What happen the number of wildlife from time to time? A) Increase B) Decrease C) The same
- What should be possible conservation strategies or mitigation measures to overcome challenges and for the sustainable conservation of Gibe Sheleko National Park?----------
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- What are the different reasons that reduce wildlife species time to time in the park?----------
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10.What we observe or see the human activit that takes place or happen in Gibe sheleko National Park?----------
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11,What we do local community address more affect the wildlife and its habitat in Gibe sheleko National Park the?----------
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12,What we think the wildlife habitat change in to agricultural land and investment area in the park when at time of visit the area?----------
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13, What we say the natural forest became to deforested in GSNP ?

14, How to we see the local community and wildlife relation in GSNP ?

