

An Assessment of the Costs and Benefits of Nech Sar National Park on Livelihood of Local People of Arba Minch Town, Gamo Goffa Zone of SNNP Region

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Abstract

Protected areas are biodiversity conservation centers and major tourism assets for a nation particularly for developing countries like Ethiopia by providing sustainable benefits to local community and their livelihood. The main aim of this study was to assess the costs and benefits of Nech SAR National Park on the development of Arba Minch town and livelihood of local people. The study intended to identify the costs of the park on lives of the people, see the contribution of the park, and describe the status of the park in terms of wild life, forest composition, and area coverage. To address this objective the data relevant for the study has been obtained from primary and secondary sources of data. The researcher was used purposive sampling mainly expert by use in order to select experts from Nech Sar national park, Arba Minch town municipal office, Arba Minch town and Zuria woreda tourism office have been selected, Additionally the researcher used accidental sampling technique in order to select wood collators, business owner and others peoples live in Arba Minch town. The data were collected through questionnaire from wood collators, business owner and others, interview from selected office and personal observation from some part of the park and Arba Minch town. Those collected information was analyzed through qualitative and quantitative data analysis techniques. The major findings of Nech SAR national park provide benefits for local people inform of employment opportunities, tourism development, and infrastructure development and increase the wellbeing of people. on the other hand Nech Sar national park have costs on local people and livelihood by restrict human injuries, create displacement, lack of access natural resource, lack of access to fire wood and lack of access cultivable land. And this research come up with the status of the park in terms of wild life, forest composition and area coverage are decline from time to time. And the researcher suggests that in order to reduce the costs and enhance the benefits and protect the status of the park those selected offices should be work together.

1. Introduction

1.1 Background of the study

A national park is a park in use for conservation purposes. Often it is a reserve of natural, semi natural, or developed land that sovereign state declares or owns. Although individual nations designate their own national parks differently, there is a common idea the conservation of 'wild nature 'for posterity and a symbol of national pride. An international organization, and its commission on protected areas, has defined "National parks" as its category type of protected areas, international union for conservation of nature (IUCN),

Protected areas (PAs) play important role in the conservation of the world's habitats for different plants and animals species (Maxtedetal, 2013).PAs are believed to play an important role in (economic benefits of national parks extend beyond tourism, the greatest value of natural amenities and recreation opportunities often lies in ability of protected lands to attract and retain people, entrepreneurs, business, and retirees). Poverty alleviation by supplying eco-tourism and providing conservation benefits for social and economic development (Fisher, 2005). Worldwide, protected areas cover approximately11.5% of plants surface (Jenkins et. al, 2013).

The livelihoods and wellbeing of rural poor people are more vulnerable to the establishment of national parks or protected areas particularly in developing countries, because their livelihoods are dependent on mainly on agriculture and on the available natural resource (Amin et al, 2015). Benefits and costs experienced local people because of PAs can influence positive or negative attitudes towards the conservation activities (clement et al, 2014). Balancing conservation goals and the need of the local people has challenging particularly in recent years (Bennet and Dearden, 2014).

The establishment of PAs with the exclusion of local people from land and resource use, displacement of people from their lands has been feature of conservation activities (Lele et al, 2010). Different studies have suggested that, the successful sustainable management of protected areas and the acceptance of the establishment and expansion of PAs involve participation and involvement of the local communities (Campbell and Vainio-Mattila, 2003, Bode et al, 2015). Therefore, an increasing recognition of local support

in management and conservation by insuring that a PA play role in sustaining local livelihoods by providing incentive benefits for offset the costs of conservation (Sekhar, 2003).

Thus surveys of the impact (both benefits and costs) of PAs on local people living in and around such areas are fundamental in balancing the conservation goals with the needs of the local people (Sekhar, 2003). Benefits can be social support –related projects, benefits from eco-tourism and employment, as well as cultural and environmental benefits (Bennet and Dearden, 2014). Additionally, while living adjustment to protected areas local people experience costs and lose such as crop damage, depredation, human injuries and restricted access to the park resources (Kumalo and Yung, 2015). Therefore, PAs may influence local perceptions because of the benefits and costs of conservation activities (Clements et al, 2014).

NechSar National Park hosts a variety of unique terrestrial and aquatic features. The ground water forest of the park is characterized by dense canopy cover, evergreen, none rainfall dependent out of its biome region, rich in ground water and associated wetlands and mixed shrub land vegetation structure. NechSar National Park (NSNP) is one of the globally most important protected areas (PAs) serving as a refuge and providing habitat for numerous wildlife species including, Grant's zebra (*Equus quagga*) which yet widely erroneously called as 'Burch ell's zebra' (Clark 2010), Grant's gazelle (*Gazella granti*), and specially for conserving the population of Swayne's hartebeest (*Alcelaphus buselaphus swaynei*), a highly threatened subspecies (Bolton 1969; Bolton 1973; Duckworth et al. 1992)

1.2. Statement of the Problem

Protected areas are biodiversity conservation centers and major tourism assets for a nation, particularly for developing countries like Ethiopia through providing sustainable benefit to the local community while supporting for the maintenance and rehabilitation of the protected areas themselves. Conservation and management of the Ethiopia's national parks are facing different challenges but the major one is human population growth which leads to over exploitation, degradation of resources and loss of habitat (Toonen et al., 2013).

Recently the establishment of PAs (protected areas) is increasingly used to mitigate adverse effects on biodiversity (Bode et al., 2015). Restricting access to land and valuable resources without providing users with alternatives has adverse effects on local communities, including reduction in food security and loss of livelihoods (West et al., 2006).

The major objectives of the establishment of NechSar national park was initially for biodiversity conservation, and particularly concerning an endemic Swayne's hartebeest, and the economic dimension of generating economic benefits through tourism projects was also central to the conservation objectives(Desalegn,2008)

However enclosures to eviction and resettlement of local communities, restricted access to their customary resource areas and criminalization of their way of life practice which involved ritual practice and extraction of resources and from protected areas another striking point that warrants mention is the question of compensation for people who were relocated from their customary land. Issues of compensation and citizens' right to go in line with the broader political context (land effectively remained under the control of state). In addition local communities, experience other costs such as crop raiding, livestock loss and wild life including human injuries, which influence negatively attitudes towards protected areas and make locals unwilling to cooperate on conservation activities (organ, 2008). The above problem also occurs in local livelihood of the Arba Minch town nearest to the park.

Despite this fact studies conduct above this protected areas/ Nech Sar National Park /NSNP/ are many such as (A proposed management plan for Ethiopia's, NechSar national park, /Alison, 2005/, with the aim of, structure of proposed management plan is presented in our section in order to address all resource of Nech Sar National Park and its communities includes environmental, economic, community based and access/utilization objectives. Detecting trends in land use land cover change of Nech Sar national park, Ethiopia (Fetene, et. al., 2015). The result this research shown that vegetation degradation is considerably higher in the forest and grassland habitat, which are however the integral component of NSNP for wild life conservation. Governance and land use in NechSar national park, Ethiopia (Kelebor and Stellmachor, 2012). The findings in contesting a national park

theorem or this research conclude about the key challenges in governing Nech Sar national park are conflicting are rooted in its socio-economic, political and ecological complexity. Conflict between the park authorities and local people begun with NechSar park designation as exclusion wild life conservation area which ultimately lead to forceful actions resettle people out of the park boundaries). Therefore very little is known about intricate and multifaceted cost and benefits of Nech Sar national park on the development of Arba Minch town and local peoples. Due to the above problems, this research will be conducted in order to fill the gap to assess the costs and benefits of Nech sar national park on the development of Arba Minch Town, impacts of the park for the livelihood of peoples live in Arba Minch or/and nearest to the park.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of this study is to assess the costs and benefits of Nech Sar National Park on the development of Arba Minch town and livelihood of local people.

1.3.2. Specific Objectives

In the light of general objective specific objectives of the study are:

- 1) To see the contribution of the park on the livelihood of people in Arba Minch town.
- 2) To identify costs of the park on lives of the people
- 3) To describe the status of the park in terms of wild life, forest composition and areal coverage

1.4. Research Questions

- ✓ What are the contributions of the park on livelihood of the people in Arba Minch town?
- ✓ What are the costs of the park on lives of the people?
- ✓ How the status of the park looks like in terms of wild life, forest composition and areal coverage?

1.5. Research Methodology

1.5.1 .Sampling Techniques and Sample Size

The sampling technique that are uses for this study have Purposive sampling mainly expert sampling was used to select experts that may have better knowledge the issue; by use expert sampling experts from Nech Sar National Park, Arba Minch town municipal office, Arba Minch town and zuria woreda tourism office, Arba Minch zuria woreda agricultural and rural development office, Arba Minch Zuria Woreda small and micro enterprise office was selected. In addition to expert sampling, accidental sampling technique was used to get the insight from different segments of the town's population like wood collectors business owners like hotel owners and others. By using the above sampling techniques 20 experts from the above listed office was selected and 20 people was selected from different segments of the population, Therefore the total sample size for this study is 40.

1.5.2. Data Sources

Both primary and secondary data was used for this study. The primary data sources are wood collectors hotel and business owners, experts from concerned offices. Whereas the secondary data sources are reports, journals, books, magazines, documents, and research works. Etc.

1.5.3. Methods of Data Collection

Data for this study was obtained through field observation, interview and questionnaires.

Field Observation

Field observation is one of the methods of to get tangible and practical data especially for geographic studies, because of this observation at different time from different direction of the park would be carried out.

Interview

Both structured and unstructured interview was conducted with those selected officials /experts from different office (like Arba Minch town municipal office, Arba Minch town and Zuria Woreda small and micro enterprise office...)

Questionnaire

Questionnaire (open ended and closed ended questionnaire) was distributed to those selected respondents from different segments of the community (like, wood collectors, hotel and business owners and others).

1.5.4. Methods of Data Analysis

The researcher has used both qualitative and quantitative method of data analysis. The intensity of qualitative data analysis is greater than the intensity of quantitative data analysis. Qualitative methods of data analysis have used to analyze the opinion, and response of experts, interviewee, and significant people by the park and observable Quantitative methods of data analysis are also uses to analyze data from wood collectors and different segments of the community through questionnaire in the form of, percentage, and frequency, in ratio and in quality. This helps to understand, interoperate and/or describe easily and more clear.

1.6. Significance of the Study

This study is helps to raise the awareness or create awareness of individual readers, interested groups, tourists and concerned administrative bodies and uses as the base of (knowledge and policy making) specifically for administrative bodies and public officials. It helps changes and improvement to current conservation policy should include and encourage proper participation and involvement of local communities in conservation activities. Finally, this study will help to manage and administer the park formulates rules and regulation; uses for administer officials on the park, and awareness of people about the contribution of parks for socio-economic development.

1.7. Scope of the Study

The study have focuses on analyzing investigating the costs and benefits of national park on the Ethiopia's livelihood, but it is difficult to conduct research in country level. So this research will specifically conduct on costs and benefits of NechSar national park for livelihoods of local people, in Arba Minch town, by considering the time and budget constraints this study was limits only in depth only costs and benefits of NechSar national park on the

local livelihood and in area coverage constraints in terms of into Arba Minch town.

1.8. Limitation of the Study

In conducting this study, there were several limitations that the researcher faced. These are time, budget and data constraints. The researcher conducts this study at the time of taking many courses, so that could not have enough time to freely conduct the advanced research in this situation. Lack of budget to do experiment on inside the park in order to identify forest species and also the researcher faces lack of documented and record data on the trend of the park in terms of forest composition and area coverage.

1.9. Organization of the Paper

This paper contains five chapters, chapter one includes background of the study, statement of the problem, objectives of the study, research questions, research methodology, significance of the study, delimitation or scope of the study. Chapter two deals review of related literature. Chapter three consists of physical description of the study area. Chapter four consists of result and discussion. And chapter five consists of conclusion and recommendation.

3. Description of the Study Area

3.1. Location

Arba Minch town is one of the 22 reform town. The town Found in Gamo Gofa zone, the Southern Nations, Nationalities and Peoples Region. It is located at 505km distance south of Addis Ababa (capital city of Ethiopia) and 275km southwest of Hawassa (capital town of the regional state). Arba Minch town is bordered by Arba Minch Zuria woreda in the north, west and south and Nech-Sar National park in the east and some part of northeast. The total area of the town is estimated about 4011ha and it is structured or divided in to 4 sub city and 11 Kebele in order to facilitate socio-economic development of the town residents. (Arba Minch Municipality office, 2018).

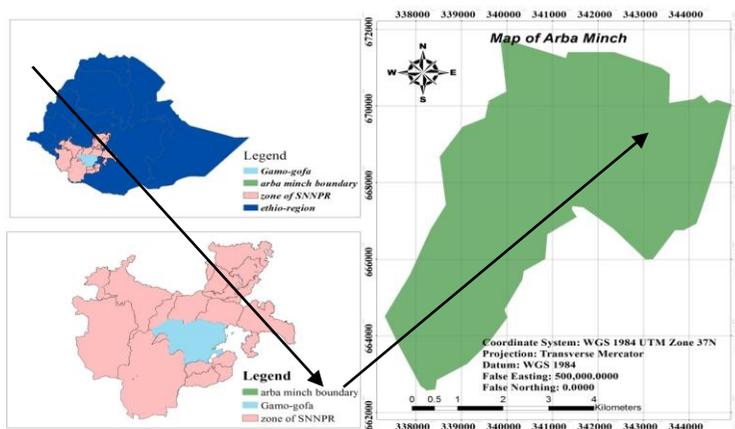
Astronomically Arba Minch lies between 5.59°-6.4° North latitude and 37.31°-37.36°. Furthermore the town bounded in the north, north east and east by Lake Abaya, in the south by Lake Chamo and in the west and north west by Ganta massive the east west and north south distance area not in balanced area position as a result the towns shape have elongated currently

the town is getting expanded and developed due to the increase flow of national and international tourist in the area. (Arba Minch Municipality office, 2018).

The Arba Minch City Administration is endowed with the remarkable and attractive environment consisting of natural history value (forest resource, durable spring water resource, Abaya and Chamo lake, fish resource panorama, Admirable Gods bridge, different fruit resource ancestral heritage, wild life, crocodile market), etc. and human history values (Gamo arts, resilient community by Ethiopia standards, Arba Minch City is third tourist destination and potentially wealthy city (Arba Minch City Administration Finance and Economic Development office, 2018).

Arba Minch town is rich in wild life, these wild life resources are used as a source of food for some people of the lowlands, source of income through licensed hunting, civet musk production, skins for leather products and for recreational values and tourism promotion among others.

Figure ; 3.1. Map of Study Area



Source; CSA data, 2007

3.2. Demographic

According to Central Statistical Authority (CSA) (2008), Arba Minch has a total population of 74 843, out of which 39 192 were males and 35 651 were females. Its annual average growth rate of population between the Second

(1994) and Third (2007) Ethiopian censuses is 4.8% per annum. Its annual average growth rate of population between the Second (1994) and Third (2007) Ethiopian censuses is 4.8% per annum.

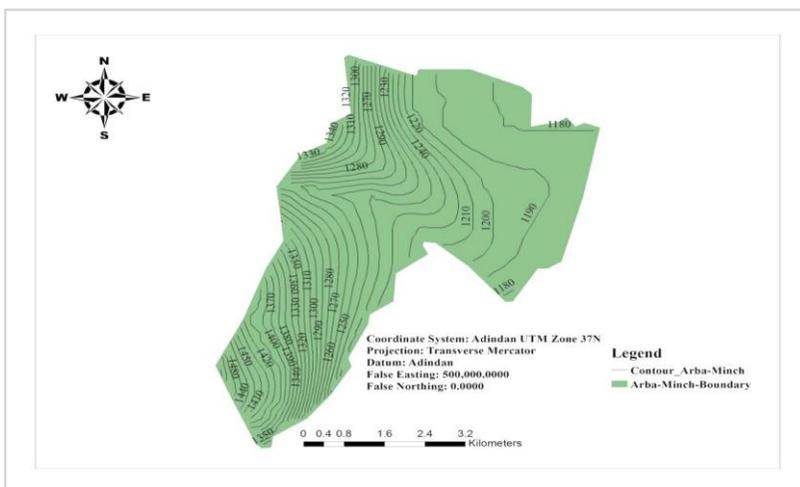
In 2009 E.C. Arba Minch City Administration population estimated was 119666 of which 62,658 were males and were 57,008 females. The age structure is both the determinant and consequence of population growth. The Arba Minch City Administration population is characterized by a young age structure, a feature of rapidly growing population. The proportion of children under the age 15 is about 37,679 of the total population. The proportion of the population at the age group 15-64 years is 80,256 the proportion of the population aged 65 and above is 17733 for further breakdown of the age group.

3.3. Topography

The altitude varies from 1108m (at Lake Chamo) to 4207m (Mount Guge) in the Western part mountain chains (Tiruneh 2005, Bayu 2012). The Abay-Chamo basin, which includes the town, is part of the great East African Rift Valley. Arba Minch is located in the narrowest part of the valley. The valley was formed by volcanic activities during the Pliocene and Holocene period (Tiruneh 2005). The general elevation of the town ranges from 1300-1500 above sea level.

The town has attractive land scope and its name is received from the local and high-yield springs which produced under ground water forests. West and north of Arba Minch are steeped and undulating chain of mountain and hills. This topographic deprived the vegetation exposed the town for flooding. This has early resulted in the formation of several gullies and gorges within the town which aggravate the problem associated with environmental sanitation and ecological set up. It called be said that in general the topography of the town slopes in the direction north and north east Secha, NechSar sub cities and genteel dropping toward flat land in Senkele and Abay sub-cities.

Figure;3.2. Topographic Map of Arba Minch



Source; CSA data, 2007

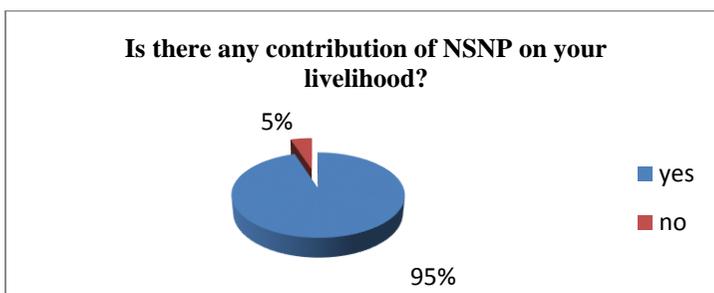
4. Result and Discussion

The main concern of this chapter is to analyze and interpret data in order to assess the costs and benefits of Nech Sar national park on livelihoods of people in Arba Minch town. The researcher have analyze on the data collected from wood collators, business owners and others via questionnaire and through interview from experts from Nech Sar National park, Arba Minch town and Zuria Woreda tourism office, Arba Minch town and Zuria Woreda tourism office Arba Minch Zuria Woreda small and micro enterprise office, Arba Minch Zuria woreda agricultural and rural development office and other office and also data from the town and Nech Sar National Park through observation and then the data summarized indifferent tables pie charts, bar graphs and line graph.

4.1. Contribution of the Park on Local Livelihood

Respondent were asked about contribution of Nech Sar National Park on your livelihood.

Figure4.1: Distribution of the Respondents by Contribution of the Park on Their Livelyhood



Source: Field survey (2018)

As seen from the figure (4.1): 19(95%) of respondents responds that, the park has contribution for their livelihood, the rest 1(5%) of respondents response is think as the park is not significant for livelihood of people. From here you can understand the contribution of the park was significant for people to live.

Respondents also were asked which types of contribution you get from the Park.

Table 4.1: Distribution of Respondents in Terms of Kinds of Contribution from the Park

Item	Alternative	Numbers of respondents	Percentage
What/which kinds of contribution do you get?	Social	4	21.05%
	Economic	10	52.63%
	Environment	4	21.05%
	Political	-	- %
	Other	1	5.2%
	Total	19	100%

Source: Field survey (2018)

As observed in the table (4.1): 4(21.05%) of respondents responses as social contribution, 10(52.63%) of respondent say economic values 4(21.05%) of respondents says environment values and the rest 1(5.26%) of respondents says others related values (tourists attraction countries economic). The major proportion of responses are as indicated above table is economic values.

According to Nech Sar National Park Office “The park gives or provides economic, social and environmental values. The park gives different economic values and plays a great role for the well-being of the people both those who live near the park and live in Arba Minch town: In addition to that of many environments benefits including preserving plants and animal habitat, decreasing air pollution, and water filtration, park creates in economic benefit for government and individuals. By creating well planned parks and preserving sufficient land can generate financial returns that are often many times greater than money initially invested into the park”

Social Values : As interview from Arba Minch town and Zuria Woreda tourism office “The Park provides as social values of the people through increase the habit of interaction between tourist and local people in order to exchange ideas, beliefs and technologies, and use for job opportunities and also it gives recreation purpose for local people”

Environmental Values: According to Nech Sar National Park Office “Environmental values including mammals. Birds, reptiles and gives as a home for aquatic and terrestrial mammals, the combination and interaction of these all animals and organisms should be protected and provides environmental balance and create conducive environment for local people, not only local people but also protect the environment around nation”

4.1.1. Some of Contribution of the Park for Towns of the People

Respondents were also asked again about what is the contribution of the park on town people

Table 4.2: Distribution of Respondents on Contribution of the Park on Town’s People

Item	Alternative	No of respondents	Percentage
The contribution of the park on Arba Minch people?	Employment opportunities	10	50%
	Infrastructure development	5	25%
	Social interaction	2	10%
	Others	3	15%
	Total	20	100%

Source: field survey (2018)

From table (4.2): 10 (50%) of respondents says the contribution of the park to local people or towns people through or by creating job opportunity or

employment opportunities 5(25%) of respondents said the park is significant through development of infrastructure 2(10%) of respondents said significant inform of social interaction.

Employment Opportunities: According information from experts of Nech Sar National Park “the Park was divers significance for peoples and this is also the base for ecotourism as a result create job opportunities” some of the employment opportunities related with the park includes.

Cooker in Hotel: (The one who is cooking food), these also one of livelihoods strategies activities in order to survive peoples in day to day consumption and works on hotels.

Transport Provider: This is also of employment opportunities by support provide Car, Motor, Bajaj for tourists. According to information obtained from Arba Minch town municipal office. “Due to expansion of transportation because of tourist flow many drives are work on transportation.

Guider: This is also the part of employment opportunities that NechSar national park creates as a job through tourism development there are many peoples of Arba Minch town those engage in guidance.

Street-Vender: According to information from the Arba Minch Zuria Woreda, small scale and micro enterprise “Because of expansion of tourism due to the park, there are peoples engage on ratty trade and by taking commodities and settle around the road street.

4.2. Costs of the Park on Local People

Table 4.3: Distribution of the Respondents on Costs of the Park

Item	Alternative	Numbers of respondents	Percentage
Do you think the existence of the park have costs on lives of the people?	Yes	14	70%
	No	6	30%
	Total	20	100%

Source: Field survey (2018).

As seen from the table (4.3): 14(70%) of respondents say “Yes” which means in some case the park gives problem for local people. The rest 6(30%) of respondents say “No” which means they believe the park is always gives

positive impact for local people but they have not correct because the park sometimes, think as the problem for livelihood in many aspect. The existence of the park may considered as a problem for livelihood due to restricted to utilize any resource which is exist on the park like potable water, Nech Sar(to feed their livestock) and fire wood from the park.

4.2.1. Types of Costs of the Park on Lives of People

There are many costs of the park on local people and livelihood those are displacement of people from their lands, lack of access for wood from the park, livestock depredation and reduce the amount of cultivated land.

Respondents were also asked the effect of the park on livelihood/lives of Arba Minch town.

Table 4.4: Distribution of the Respondent by the Type of Costs of the Park

Item	Alternative	Numbers of respondents	Percentage
What is the effect of the park on lives of the people?	Displacement of people from their lands	3	21.4%
	Lack of access for wood from the park	8	57.14%
	Livestock depredation	-	-
	Reduce the amount of cultivatable and	2	14.28%
	Others specify	1	7.1%
	Total	20	100%

Source: Field survey (2018)

As expressed in table (4.4): 3(21.4%) of respondents says displacement of park people from their land, 8(57.14%) of respondents says lack of access for wood from the park, 2(14.28%) respondents says reduce the amount of cultivable and the rest 1(7.1%) of respondents are indicate other forms of problems/costs of the park including disease which come from wild life, species. When you see the table (4.4.) the majority of response around 57.14% approaches to lack/restricted access of wood from the park. As a result the park as the cost for local people in form of lacking access to wood.

4.2.2. Lack of Access to Fire Wood

It is oblivious that the establishment of park is coming with costs on local peoples live around the park, from those costs lack of access to natural

resource is the dominant one including physical and natural capital as mention the lack of access of resources from the park so fire wood is also one of physical and natural capital which consider as a source and preserved inside the park. So if there is forest area can be demarcated it is difficult to access fire wood, this is also considered as cost of the park on live of people.

As indicated from wood collators on open ended question “more of the problem they faces to practice in livelihood strategy activities is influenced by the park, because the only ways to let out from the vulnerability of current context is by wood from surrounding the park and take it then caring wood to access on market and finally they get income from the wood on this process wood collators may faces challenges by scouts of the park and finally the family leader the one who collect wood was going to Jail (prison). The problem park is high especially on peoples live under low income level (income from sales of wood). Not only this problem but also the park was the factor for expansion of settlement and access to cultivated land because of already delineated.

4.3. Kinds of Opportunities of the Park for Town Development

Respondents were also asked in which kind of park contribution for Arba Minch town development.

Table 4.5: Distribution of Respondents According to Kinds of Opportunities for Town Development

Item	Alternative	Numbers of respondents	Percentage
Which one is the opportunity of the park do have on town development?	Infrastructure development	1	5%
	Foreign exchange or currency	3	15%
	Tourism development	16	80%
	Environmental balance	--	
	Others	-	-
	Total	20	100%

Source: Field survey (2018)

According to table (4.5): 1(5%) of respondents responses states that the park is used as infrastructure development 3(15%) of response are foreign currency, 16(80%) of respondents think as the park contributes for town development through growth of tourism. The majority of respondents say the park play significant role for tourism development of the town.

Table 4.6. Arba Minch Town Tourist Flow from 2000E.C to2009 E.C

No	Year	Tourists		Total	Income From	
		Domestic	Foreign		Birr	Cent
1	2000 E.C	50,408	21, 781	72, 189	4,751,362	
2	2001 E.C	53,137	30, 537	83, 674	7, 654,851	
3	2002 E.C	116,812	42,781	169, 593	11, 400, 000	
4	2003 E.C	60, 616	15,769	76, 385	23, 600. 000	
5	2004 E.C	70,019	35,928	105, 947	47, 322, 430	
6	2005 E.C	79, 673	38, 671	118,344	48, 330,105	
7	2006 E.C	86, 965	41,060	128, 025	51, 597,092	05
8	2007 E.C	90, 500	44.640	135, 140	37, 728,887	09
9	2008 E.C	112,272	49, 030	161, 302	62, 384, 337, 93	
10	2009E.C	140080	20,196	160276	466886059	08
TOTAL		954, 200	436,196	1 ,502,665	356,382,936	

Source; Arba Minch Town and Zuria Woreda tourism office, 2010

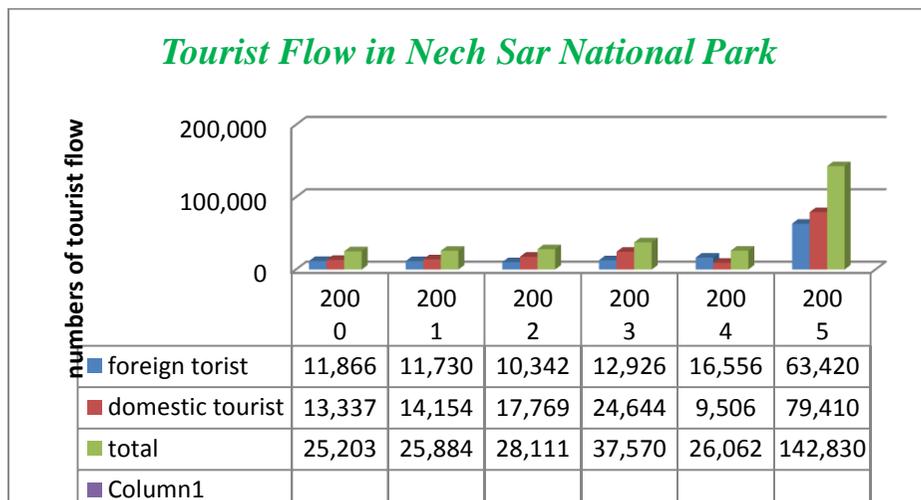
According to Arba Minch town and Zuria Woreda tourism office “The park was the main/take lion snare for development of tourism, especially Nech Sar National park was trying to develop wild life conservation interact with tourism development and make things are sustain/fulfill for the development of tourism by taking care for environment and conserve wild life are basis for tourism development through making tourist healthy satisfactory and happiness, as a result increase the expenditure of tourists for recreational purpose and improve economy of peoples in the town and also livelihood of the people, including increase foreign exchange.

As the researcher got statistical data from Arba Minch town tourism office (summarize table 4.6). The data describes tourist flow from 2000-2009, the tourist flow of Arba Minch town is high due to the well-known national parks around the town which is Nech Sar National Park. Increase the park performance on tourism sector, it creates the alarming development of tourism on the town, that makes the well-being and living standard of people was increase. And as you can see on table 4.7 statically data, already the flow of tourist was high from time to time. The more the flow of the tourist have the more expenses of tourist for recreational purpose would be, the town receive from expenses in terms of many was also increase from 1991 up to 2009 E.C. from this you can understand that, by the support of the park on tourism development. This tourism development as a result creates

sustainable livelihood of peoples who are beneficially through indirectly and indirect in from tourism sector.

When I say directly, people live in Arba Minch town are directly involve on tourism sector, as employer example, Business owners, hotel managers, Guider and the like. On the other hand when I say indirectly this is local people those are participate indirectly on tourism sector, as a result those both directly and indirectly beneficiary from the sector and again when I say directly beneficiary from the sector are members that are directly employed in the sector. When I say indirectly, local peoples are indirectly benefited from tourism sector through infrastructure development and the like. In addition from direct and indirect benefits for peoples and also uses for or provide for town development and economic. As a town income increase via increase in infrastructure development for local people and local peoples are indirectly benefited from infrastructure development. Due to the park and tourism development and also local people may increase livelihood strategies in order to improve livelihood objectives through directly from tourism development by making small market and petty trading for tourist.

Figure4.2; Tourist Flow in Nech Sar National Park



4.4. Challenges of the Park on Town Development

The respondent also were asked about the challenges of the park on town development

Table 4.7: Responses of Respondents Were in Terms of Challenges of the Park of Town Development as a Result Impacts on Livelihood

Item	Alternative	Numbers of Respondents	Percentage
Which/what challenges occurred on the town?	Congestion	3	50%
	Reduce cultural development	3	50%
	Expansion of thief and robbery	-	-
	Social composite	-	-
	Others specify	-	-
	Total		6

Source: Field survey (2018)

From table (4.7): 3(50%) of respondents indicates congestion are the problem for town development from the park, 3(50%) of respondents think as reduce cultural development on the contrary of park in cultural development it also the causes for cultural destruction from westernization, generally from those six respondents those says the existence of the park is think as a problem and stated in which problem the park focuses on town development are both congestion and cultural destruction to foreigners tourists westernization.

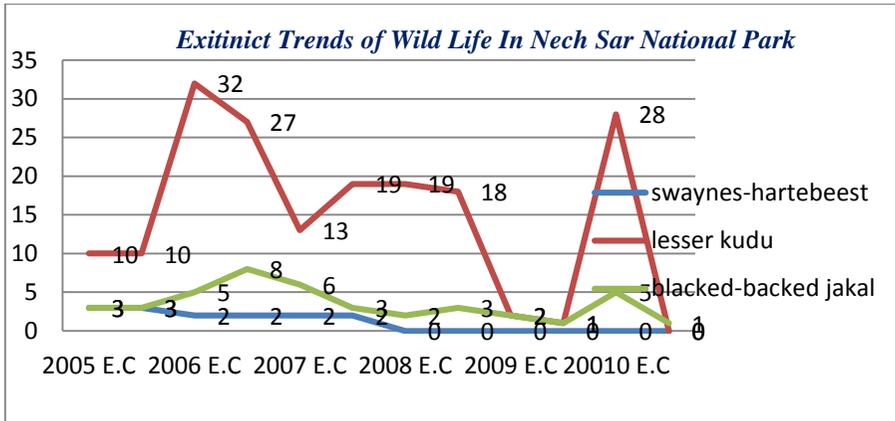
According to the researcher field observation, the researcher pointed out some of problem may the town faces by the park was congestion (Traffic congestion and also as the researcher listen from towns dwellers and he point out there is much of thief and robbery in Arba Minch town around settled surround the existence of tourist the area in which more tourist settled.

4.5. The Status of the Park

4.5.1. The Status of the Park in Terms of Wild Life, Forest Composition and Area Coverage

According to Nech Sar National Park office in terms of wild life as indicated in below data. The wild life was decline from time to time

Figure 4.3; Extinct Trends of Species from 2005 E.C up to Now



Source; own field survey (2018)

Figure 4.3; indicates the extinction trends of the park in wild life species, the figure clearly shows the trends of three wild life which are Swaynes heart beest, lesser kudu and blacked-backed jackal. These all are already extinct.

4.5.2. Potentials of Nech Sar National Park in Terms of Wild Life

As researcher collected data from the park office, from the country's wild life species record until now, Nech Sar national park possess 91 mammals species 8 water life and 700 to 1000 in plant species, 33 reptiles, 351 birds species, 16 fish species.

Table 4.8. Wild Life Species Found in Ethiopia as Well as in Nech Sar National Park

No	Species	Numbers of Species in NSNP	Numbers of Species in Ethiopia	% of species in NSNP from Ethiopia
1.	Mammals	Greater than 91	279	33%
2.	Birds	351	862	41%
3.	Reptiles	33	201	16%
4.	Amphibians	8	63	13%
5.	Fishes	16	150	10%
6.	Plant species	700-1000	6500-7000	7.9%

Source; (NSNP, 2018)

From the table (4.8): You can see the species proportion of each species in Nech Sar national park. The greater proportion of park species is mammals

and it ranks the second. The first largest proportion of species is birds, and also there are different species inside the park including reptiles, Amphibians, Fishes and plant species.

4.5.3. Land Cover of the Park

According to Nech Sar national park office there are different land cover in the park indicated in the table below

Table 4.9: Land Covers of the Park

No	Ecological units	Area Km ²	Proportion in percentage
1.	Aquatic area	87 Km ²	15.00%
2.	Reverie ground water forest	67.5 Km ²	13.13%
3.	Plain grass lands	270 Km ²	52.50%
4.	wet lands	8.63 Km ²	1.68%
5.	Wooded bush land	80.87 Km ²	15.73%
	Total	541 Km ²	100%

Source; (NSNP office, 2018)

Table (4.9): The ecological unit, area covers and its proportion land covers of the park from the table you can see plant grass land is (the greatest proportion account about 2270Km²) 52.50% of the total area of the park.

According to Nech Sar national park office “There is a census on level of wild life, forest composition and area coverage on that census, most commonly the previous census is greater in number of the next census because in most cases the park is decrease from one census to the other due to human intervention species disease and lack of food, they shoot one another like of the of herbivores and carnivores as a result reduction of the park in terms of wild life forest composition and area coverage”

According to Nech Sar national park office "The nature and composition of forest in Nech Sar national park are divided into three stages, seedling, sampling and tree/growth stage. Seedling stage are exist below 0-75 centimeter, sampling stage between 0.75centimeter -3.5meter and growth or tree stages characterize above 3.5meter those all stages are reduce from time to time due to human intervention or illegal cutting. From those stages

of forest under growth or tree stage is degraded severely which compare from the other"

The most illegally cutting forests are Acacia Ploycanta, Balantitesaegyptica, Celtis Africana, Cordiaafricna, Croton Macrostachys, Diospyrosabyssyniia, Eculleaschimperi, FicusSycamore, Ficus spFicusVasta.Kigeliapinnata, Mimusopskummel,Syzygiumquinensis,Tamarindusindica,Trichilliaaetic, Tecleanobilis and Terdminaliabrowni (NSNP, office 2018).these all species is rapidly cutting by local peoples for the purpose of for charcoal for construction and for material as a result it degraded from time to time.

4.6. General benefits of the park

The respondents were also asked about do you receive any benefit from Nech Sar national Park.

Table 4.10: Description of the Respondents by General Benefits of the Park

Item	Alternative	No of	Percentage
Do you receive any benefit from NSNP?	Yes	19	95%
	No	1	5%
	Total	20	100%

Source: Own field survey (2018)

Table (4.10): states show that: 19(95%) of respondents are benefited from NNP, the rest1 (5%) of the respondent says cannot benefited from the park. As a result the majority of the respondents are benefiting from the park. Every respondent have get something from Nech Sar National Park.

As the researcher collected data from the respondents through questionnaire almost all of the respondents were benefited least one times. Almost all of the respondents are benefited from the park through employed or have they been employed directly by Nech Sar National Park as an expert and scouts of the park also through participate in eco-tourism as you know about the importance of the park on eco-tourism especially business owners, investors and hotel managers or owners indirectly are benefited from the park and park also access water drink and uses for industry and livestock. In fact the source of Arba Minch town for potable water is from the park which is Forty Spring and other surface water.

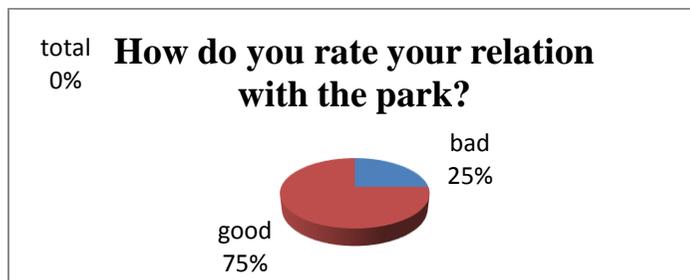
Despite this some of the respondents are faces costs from the park. Not only the park gives benefits it also gives costs on peoples specially those are wood collators due to lack of access to fine wood and building material from the park.

As the researcher observe from the field, some of people live in Arba Minch town have depend on fire wood from the forest to take the wood to market and gained income from those Sailed wood. However, the park scouts is there is difficult to survive by this situation. And also that fire wood already delineated or protected by the Nech Sar National Park. As a result the park is the problem for especially for wood collators.

4.9. The Relationship between the Park and Sample Respondents

The respondents also were asked about the relationship between their livelihood activities and the park

Figure4.4; Percentages of Respondents Response There Relation with the Park



Source: Own field survey (2018)

Figure4.4; describes that: 5(25%) of the respondents are wrongly matches or link with NSNP. While 5(75%) of respondents interaction is good.

The respondents were also asked about the way how to interact with the park. According to the respondents response more of the respondents have positively interact with the park through by report when they are illegal action on the park, through their members is work on the park directly, this means the families are benefits by income generated from the park and also through tour means the local people sometimes the tourist and use for recreational purpose by directly goes in the park in legal way, as a result the interaction were positive.

Despite this some of respondents are worth fully interact with the park the reason behind is costs of the park through restrict the injuries of human in fire wood and building materials, access to medicinal plants or ritual sites and lack of access to fire wood and a lack of access for resource from inside the park as a result the interaction was bad or Negative

5. Conclusion and Recommendation

5.1. Conclusions

National parks are providing both benefits and costs for local community livelihood. These is also occur in this study area Nech Sar National Park also provides benefits and have costs for people live in Arba Minch town and their livelihood.

Based on the findings of this study Nech Sar National Park provides as benefits for local people, near the park and surrounding the park in social economic and environmental aspect such as economic opportunities, standard of living, poverty reduction and conducive environment, and also it is the basis for economic sector development including tourism, agriculture and transportation sector. Besides those benefits Nech Sar National Park have costs or negative impact for local people and livelihood through lack of access to natural resource (such as lack in access to fire wood and material building, lack of access to ritual site lack of access to white grass(Nech Sar for livestock feeding) and lack of access to areas for settlement. Based on survey data more of people live in Arba Minch town is benefits from the park than that of costs. However, there are peoples those are severally influent by Nech Sar National Park which are wood collators.

According to Nech Sar National Park, the status of the park is decreasing from time to time in terms of wild life, forest composition and area coverage. In this finding the park was decline in intensively of wild life some of species are decline like Swaynes Harte best lesser Hud, and Bukallorechell's Zebra and black backed iackal are seriesly going to decline from time to time some of species are already extinct like Swaynes hartebeest and lesser Kud.

And also the park decline from time to time in terms of forest composition. There are three level of forest in Nech Sar National Park. Like seedling, sampling and growth stage of forests. Here the most series one of forest

degraded frequently are under growth stage because they are necessary for many purposes like for charcoal for construction and for material as a result it degraded from time to time. The same is true in area coverage of the park also decline its coverage from time to time.

Generally this study point out Nech Sar National Park was providing employment opportunities like cooker in hotel, transport provider, guider and street vender through tourism development. As a result there is positive relationship between the park and local people. It also provide costs of local people like restricted access to natural resources inside the park ,exclusively fire wood and building material from the park as a result the result the relationship between the park and local people is worth or negative. And also these study findings on the status of the park in terms of wild life, forest composition and area coverage are decline from time to time. From species or wild life Swaynes heart beest, lesser kudu and blacked-backed jackal, from forest especially growth or trees stages of forest are degraded from time to time, like Acacia Ploycanta, Ballantine saegyptica, Celtis Africana, Cordiaafricna, are degraded from time to time. And also the park reduces in area coverage from time to time due to illegal settlers.

5.2. Recommendations

The study revealed that effective, efficient and well planned conservation needs to be implemented to benefitsthe local community and their livelihood. Based on the above finding and identified costs the following suggestionwere prepared.

Recommendation for Nech Sar National Park Office

- The invention and preparation of conservation policies should strongly consider the participation and involvement of local people.
- By creating or prepare extension education program to change the negative attitudes of local peoples about protected areas.
- The delineation demarcation of the park should be clear in order to control illegal activities from local people.
- Every decision on the park better have consider the benefits of the local people The park should give priorities for local people during employment opportunity like scouts, guider, office worker and experts on the park.

- The office better prepare meeting come up with decide the issue on how to increase the benefits of local people and their livelihood and how to reduce the costs of the park on local people

The preparation and implementation of policies and regulation on the park should be under considering the local people benefits and eliminate the cost of the park.

- The park better has given the chance of protection of ecosystem for local people, In order to reduce the negative impacts of the park, through the ideology of "payment for ecosystem service".

Recommendation for Arba Minch Town and Zuria Woreda Tourism Office

- Tourism development should not harm the local people livelihood, cultures, beliefs and religion
- The tourism sector should better involve in conservation areas/protected areas.
- Its better coordinates with in Arba Minch town and Zuria Woreda tourism office and Nech Sar National Park office and concerned bodies in order to create or made effective, efficient and transparence protected areas to protect their history beliefs, cultures from westernization.
- Arba Minch town Zuria Woreda and town tourism office should have strong relation with Arba Minch town municipal office to provide infrastructure development for local people's livelihood.

Recommendation for Local Community/Peoples' of Arba Minch town

- Local community should involve in conservation program and conservation areas.
- Local community better act as rational on natural resource conservation by left out illegal activities which harm the conservation practice.
- Local community should be aware about the importance and necessities of national parks
- Local community or people live in Arba Minch town must be thinks positively about national park because parks are necessary for our livelihood.

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