THE CONTRIBUTION OF NATURAL FORESTS ON DEVELOPMENT OF TOURISM A CASE OF MABIRA FOREST

\mathbf{BY}

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A RESEARCH REPORT SUBMITTED TO FACULTY OF SOCIAL SCIENCE, ARTS AND HUMANITIES IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF A DEGREE IN TOURISM AND HOTEL MANAGEMENT OF MUTEESA I ROYAL UNIVERSITY

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DECLARATION

I hereby declare that this report is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due, acknowledgement has been made in the text and reference list.

Name: LU	UZINDANA INNOCENT	
Signature:		
Date:		

APPROVAL

This research report was carried out under my supervision and it is now ready for submission with my approval.

SUPERVISOR: MR. BIKORWOMUHANGI ROGERS	
Signature:	
Date:	

DEDICATION

I dedicate this report to my parents, sisters, and brothers who has contributed wholly and entirely to my education and who has tirelessly supported me in all aspects. May the Lord bless them.

ACKNOWLEDGEMENTS

I thank the Almighty God who enabled me to complete this long process with a successful end.

I am sending a warm thanks to my supervisor for his direction, assistance, and guidance. In particular for his recommendations and suggestions that has been valuable for the completion of this Research.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

The chapter presents background of the study, objectives, research questions, scope of the study, and significance of the study.

1.1 Background of the study

Natural Forests and trees are vital sources of income, livelihoods and well-being for rural populations, particularly indigenous people, smallholders, those living in close proximity to forests, and those who make use of trees outside forests. As discussed in the section on SDG8, they provide direct income-generating activity in both the formal and informal sectors. Forests and trees are also important livelihood components for many, including the estimated 2.5 billion people involved in smallholder agriculture (IFAD, 2013), most of whom benefit from the regulatory and provisioning ecosystem services 2 of trees in the landscape.

In particular, forest tourism can be a source of potential tourism product diversity and subsequently rewarding. Adventures, sporting and alternative cultural activities can be offered by forest tourism. Globally, tourism diversification has taken the center stage in tourism development. Majority of the countries, both developed and developing are keen on tourism diversification for their sustainability. Uganda has enhanced its diversification thrust via deliberate government action and market innovation which has led to job creation and tourism growth (Giampiccoli & Mtapuri, 2015). The diversification entails place branding & imaging and geo-tourism.

The proportion of forests with secure tenure rights for local communities and other forest dependent people is used here as a thematic metric to measure forests' role in ensuring equal rights to economic resources for all. The global trend over the last two decades is one of devolution of forest tenure from national governments to local communities and individuals.

Forest management has been a difficult task for most governments in Africa, more so in areas where land tenure systems are ill defined. This has resulted into the essence of developing enabling institutional environments to arrest the cropping problems of natural resource management. The new colonial governments set up management systems that mainly favored the white man and after the advent of colonialism, the new African-led governments maintained similar policies as were installed by the former regime. Hence the government inherited problems that were soon to be the demise of conservation cycles. For instance, communal land was put under the trusteeship of the government without minding or solving the problem of resource use and this has on many occasions caused unending conflict between the government and local people. (Kunga Ngece et al, 2002).

Uganda's forests are an essential foundation for the country's current and future livelihood and growth. Sustainable management of these forests, however, is a great challenge not only to forest managers but also to policy makers given that the population is 'heavily dependent on them for timber, agriculture, and energy production (Hamilton, 1987), resulting in deforestation. At the beginning of the nineteenth and woodlands century, forests covered approximately 45% of the total land area of Uganda. At present, forest cover has been reduced to approximately 4.9 million hectares or about 20% of the total area (MWLE, 2001). About 30% the tropical high forest is degraded and the degradation trend continues. The current context of natural resources management is

characterized by an increasing involvement of local communities in managing the commons (McCray and Acheson 1987; Ostrom 1990a; Bromley et al. 1992; Berkes et al. 2003).

there are about 4.9 million hectares of forest in Uganda (24% of the present total land area) (National **Biomass** Study, 2003). The forest resources comprise areas classified as savannah woodland (80.5%), natural forest (tropical high 18.7%) and less than 1% of forest plantations. The existing natural forests forest. reserves, together with the on private land and in government on-farm resources are the major focus of the National Forest Plan (NFP), with particular reference to decentralization of forest management (MWLE, 2002).

One of the unique features of forestry is that it generates variety of outputs. Drábková, (2013) suggests that notwithstanding timber activities, forest support biodiversity and nature preservation, they retain carbon from the earth's atmosphere, improve scenes and give chances to entertainment and the forest tourism. Besides, the commercial and social purposes attached to forests, it is also an important product for tourism diversification.

The forests in Uganda have incredible potential for tourism sector. This is on the grounds that they shelter a portion of the uncommon and threatened types of plants and creatures. The tropical rain forests give magnificent conditions to nature walking, bird species, and viewing game reserves. Treetop hotels are the other intriguing fascination in the forest in Uganda. Investigating the scenic magnificence and amazing natural life from the highest point of a tree, can be an adventurous tour experience for visitors. The forests in Uganda are additionally wealthy in medicinal value, and support numerous industrial sectors, including the pulp and paper industry,

building and construction sector, and wood carving industry (Müller & Mburu, 2009). Kakamega forest, although not a famous, is a tourist destination which is visited by both locals and outside visitors owing to its rich biodiversity.

1.2 Statement of the Problem

There has been a reduction/a fall in the number of tourists in Uganda by 3% by 2021, since Tourism is an increasingly important contributor to Uganda's economy. The 1.5 million internationals arrivals combined with a growing number of domestic tourists generated7.7% of GDP and 6.7% of the total national employment in 2019. These figures have dropped by 3% hence have affected the economy of Uganda and many people have remained jobless since tourism activities is very low.

The study therefore is set to seek for the contribution of natural forests on the development of tourism using Mabira forest as a case study.

1.3 Objectives of the study

General Objective

The main objective is to assess the contribution of natural forests on the development of tourism in Mabira forest.

1.3.2 Specific Objective

- i. To find out the challenges faced by natural forests in Uganda
- ii. To assess the roles played by natural forests in the growth of tourism
- iii. To establish the relationship between natural forests and tourism development

1.4 Research questions

- i. What are the challenges faced by natural forests in Uganda?
- ii. What are the roles played by natural forests in the growth of tourism?
- iii. What is the relationship between natural forests and tourism development?

1.5 Scope of the study

1.5.1 Time scope

The study was conducted with in a period of 4 months that is being effective from July 2022 and ends in October, 2022.

1.5.2 Content Scope

The study presented challenges faced by natural forests in Uganda and roles played by natural forests in the growth of tourism.

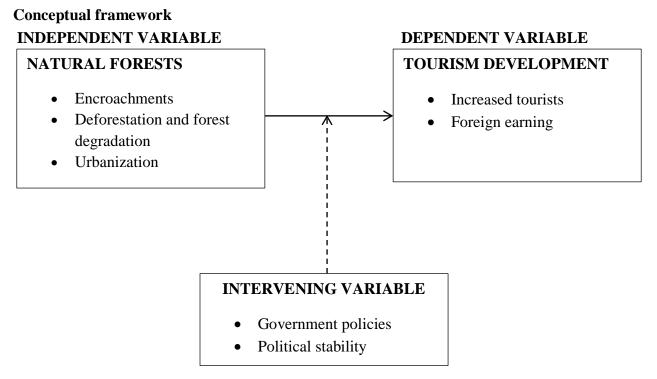
1.5.3 Geographical scope

The study was conducted in Mabira forest which is located along Jinja road, in Buikwe District.

1.6 Significance of the study

- It will be important to carry out a study that can provide relevant authorities with data, information for use by the local communities in the conservation to facilitate decision making and implementation of conservation strategies by the community.
- 2) The study will help to provide future researchers with bench mark information that can be used for designation of appropriate police in accordance with the current post war programmer

3) The outcome of the research would inform academicians in natural forestry conservation for example one can identify a specific, area in claimant change: there is extraordinary claimant change that needs more effort.



Sources; literature and modified by the researcher

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of related literature that was researched by other researchers, authors in line with the study variables and objectives.

2.1 Challenges faced by natural forests in Uganda

Encroachments

Forest encroachment has its genesis from the era of President Idi Amin in the mid- 1970s when the government encouraged clearance of forests first to deny the perceived "enemies" of the state hiding places, and secondly to increase areas for implementation of government's policy of double crop production. Large areas of CFRs especially those near urban centres were targeted because of the availability of markets for the forest produce such as timber, charcoal, and firewood which were produced during such clearings. As a result of the breakdown in the rule of law during this era, coupled with inadequate funding for FD most forests became no go areas for staff of the department. Following the overthrow of President Amin, the successor government of Dr. Milton Obote compounded the situation of encroachment as it battled guerrillas who were fighting to topple it in what became the 'Luwero Triangle' in the districts of Luwero, Mpigi and Mubende. Due to the insecurity that prevailed in that area for over five years, forests such as Lwamunda, Zirimitti Range and Luwunga suffered as FD staff could not access them while the

local communities cleared forests for farming and for harvesting forest products. Other forests including Mabira, Mt. Elgon, and Kibale were also heavily encroached upon (Kagolo, 2010).

Although the government attempted to evict people in 1989 with successes in Mabira, Mt. Elgon and Kibaale CFRs, soon encroachment became politicized. It has been the norm for people facing eviction to seek protection via their elected representatives. Over the years the problem of encroachments has exacerbated with population increase and inadequate land available for food production. Tension between institutions managing forests and local people worsened after government's directive to halt removal of encroachers from forest reserves. This has led to serious conflicts, including those between government institutions and local people, often encouraged by local politicians. Staff and local people have sometimes been injured in the scuffles. The situation becomes more serious in the period leading up to the general elections when politicians of all ranks promise the electorate that they would fight for their rights over the forests if they are elected (Kagolo, 2010).

Conflict related with encroachers also drastically affect forest plantation programmes where licensed tree planters plant trees that are later uprooted by local people. This has affected companies that were allocated large areas such as Busoga Forest Company in South Busoga, Global Woods in Kikonda, and New Forest Company in Namwasa and Luwunga. These three companies have planted over 50% of the area licensed out to private tree growers in CFRs but they could not cover all the allocated areas due to the conflicts (Busoga Forest Company Managing Director, pers. Comm.).

High rates of deforestation and forest degradation

Deforestation and forest degradation has led to loss of large areas of forest cover and degradation of forest land in Uganda. Private forests are some of the most affected areas, as owners have gained more benefits from converting these areas to farmlands than retaining them as forests. Many forests in the central region and Masindi and Hoima districts have been turned to farmlands due to their perceived fertile soils and the lure of high returns from investments in agriculture. Masindi and Hoima forests have been converted to sugarcane plantations. Provision of inputs such as tractors and seeds by Kinyara Sugar Company to sugarcane growers in the two districts has indirectly fueled the clearance of many of the natural forests. Unfortunately much of the clearing is perpetrated by migrants from West Nile and the DRC who come to border districts and end up settling near forests which they eventually clear (DFO Masindi pers. comm. 2015). Forests in Kibaale district, both CFRs and privately owned, have been heavily degraded as a result of migrants from Kabale and Kyenjojo districts, and the absentee landlords. In the early 1990s, following the evictions of encroachers from the game corridor of Kibaale National Park, majority of them was settled in Kibaale district. There were also many migrants from Kabale district (already facing acute land shortage) moving to Kibaale district. These migrants and settlers have in a period of 20 years transformed dense natural forests into farmlands (NFA 2011).

Deforestation and forest degradation has also been rampant in the savannah woodlands both in and outside of CFR. While in CFRs the drivers are mainly illegal charcoal burning and firewood cutting, drivers outside of CFRs include opening up land for agriculture, ranching, and settlements. The cattle corridor and the savannah woodlands of the northern region have been most affected. These are the major areas of charcoal production, supplying all urban centres as well as the neighbouring countries of Kenya, Rwanda, and South Sudan. The tree vegetation in

the savannah woodlands of the northern region, which had recovered during the 20 years of insurgency as a result of people being confined to internally displaced peoples' camps, are now disappearing at an alarming rate. As people returned home after the disbandment of the camps, they started clearing land for farming. However, the majority of the youth who were born in the camps have turned to charcoal burning for quick gains, rather than till the land (DFO Pader, pers. comm. 2015). Even important species like the shea nut butter tree are being cut due to the good quality of charcoal they produce. Parts of the woodlands of Adjumani and Moyo districts have been put under pressure for firewood and building poles by refugees from South Sudan, while some of the woodlands of Masindi and Nakasongola districts have been cleared to pave way for the establishment of cattle ranches.

High population growth rate and urbanization

Uganda's population growth rate of 3.5% is among the highest in the world and it is putting a lot of pressure on natural resources especially forests. Increasing population has contributed to mushrooming of urban centres, and rural-urban migration. The increasing population requires more food to be produced which in turn requires opening up more land for agriculture. In many cases the search for extra land for farming results in clearing of forests or woodlands. The high population growth is also putting a lot of pressure on trees and forests for the supply of firewood and charcoal which are the main sources of energy for cooking for the majority of Ugandans. The over reliance of much of the population (approximately 96%) on biomass and the reluctance of many households to adapt energy saving technologies has raised the demand for fuelwood and the resultant destruction of forests (UBOS, 2006).

The booming construction industry is one of the agents fueling illegal pitsawying that has more or less wiped out private natural forests and trees on farms. Due to the scarcity of trees for conversion into timber, pitsawyers have gone as far as cutting trees such as mangoes, jackfruit that they claim have good timber. The remaining trees in PAs are therefore under constant threat from the illegal timber dealers, who access CFRs during the night, fell trees, cut them into short billets of about seven feet and ferry them to trading centres for conversion into timber. Notorious places are Bwaise and Ndeeba in the outskirts of Kampala. This has forced NFA to step up its law enforcement activities to protect its estate (Kagolo, 2010).

Fires and livestock damage to forest plantations

Fires are posing a very big threat to forest plantations, with tree planters incurring heavy losses every year. Even NFA's plantings in North Rwenzori and Katugo have not been spared. The effects of climate change that are being manifested in uncommonly long dry seasons lead to accumulation of dry matter in and outside plantations, conditions that cause rapid spread of fires. The absence of firefighting trucks and skilled personnel, save for the big tree planters, compound the situation of firefighting. Many of the fires are intentionally set by herders at the onset of the dry season in order to encourage re-growth of new grass for their animals during the rainy season. Some of the fires are set by hostile communities neighbouring forest plantations in retaliation to the planters' refusal to allow them to use parts of the licensed areas to grow food crops.

Habitual dry season grazing of large herds of livestock in CFRs located in the cattle corridors (Kapimpini, Kamusense, Kabwika-Mujwalanganda, Nsowe, Kalombi, Wamale, Kasagala, and Kikonda among others) and as far as South Busoga which are some of the priority forests for

commercial forest plantation development, causes damage to young trees through compaction of soils, rendering them prone to erosion and nutrient loss (Kagolo, 2010). Some of the effects of this practice are manifested in crooked stems as the crop matures. This is clearly visible in some of the plantings for Busoga Forest Company in South Busoga, and Global Wood at Kikonda which were visited by the Board of Directors of NFA in mid-2015. In order to reduce dry matter in the plantations, some licensees have requested NFA to permit them to use animals such as sheep as a form of weed control. However, in the absence of documented evidence of the practicability of such a method of weed control in Uganda, NFA has as of now declined to approve this request.

Pests and diseases

Termites have hampered the growth of trees especially in drier parts of the country, and in woodlands where they build large mounds. Destruction of termite mounds can only help to a limited degree since the most destructive ones are the subterranean type. The attack on eucalyptus seedlings and trees is most intense in the dry season when tree growth is slow. Since it is during this period that termites devour vegetation, spot weeding around trees and seedlings can provide some protection.

Blue gum chalcid (Leptocybe invasa) is an important pest hampering tree growth in Uganda. Research has sought to develop biological means for controlling it. To this endeavor, an exotic parasitoid wasp (Selictroid esneseri) was identified as a suitable control measure. An import permit for introducing it in Uganda from South Africa has been secured.

An indigenous natural enemy for the control of the pine wooly aphid (Cinara cronortii) attacking pines in Uganda was identified in Kiirima and Mafuga, as Chelomenes propingua, C. aurora and

Exochomus spp. Efforts are now being made to multiply them for use in other areas in the country.

2.2 Roles played forests in the development of tourism

Fuel; Wood is used as fuel for thousands of years, until the advent of coal, oil, gas, electricity, etc. Wood constitutes as chief source of fuel. Even today more than half of the total world consumption of wood is for fuel-wood. Wood remains the major source of domestic fuel in India. Approximately 175 mm3 of wood is used as fuel in the country. It is estimated that by 2010, most of the 3 billion people who depend on it for their daily living will find it hard to obtain. Already, rural families spend precious hours in collecting firewood instead of other productive work, something that causes losses to the tune of US\$ 50 billion to the world economy.

Timber is a major forest produce and is used extensively for various purposes. In India most of the wood produced is used for construction of houses, agricultural implements, bridges, sleepers etc., In India 12 mm3 of timber is produced from our forests. More than 1500 species of trees are commercially exploited for timber in different parts of India. It is used in timber-based industries such as plywood, saw milling, paper and pulp, and particle boards.

Many species like teak, sal, deodar, babul, sissoo, chirpine, adina, axlewood, rosewood, dipterocarpus, and etc.yield valuable timber.

Fibres are obtained from bast tissue of certain woody plants, which are used for making ropes. Flosses are obtained from Ceiba pentandra and fibres are obtained from Agave sisalana, Sterculia urens

A large variety of grasses are found in the forests. About 30% of the 416 million livestock population graze in the forests. Among valuable grasses eg: Sabai (Eulaliopsis binata) is harvested annually 6.5 million tones and 80,000 tonnes of bamboo are harvested from forest every year.

Many tree species of Madhuca indica, Pongamia pinnata, Shorea robusta, Azadirachta indica, Schleichera oleosa, Vateria indica etc., produce oil-bearing seeds, which are commercially important. Presently these seeds are used in the soap industry. There is a potential production of about 1 million tonnes of oil every year from forests tree seeds.

Forests as Earth's air purifiers

Forests form an effective sink for the carbon dioxide produced as a result of animal respiration, burning of fossil fuels, volcanoes and other natural and human-induced phenomenon. And if that is not all, a by-product of photosynthesis is oxygen. Thus, the Amazon forests are the Earth's air purifiers, given the large amounts of carbon dioxide they absorb from the atmosphere.

Forests play a significant role in maintaining the CO₂ balance in the atmosphere without sufficient forest cover all the CO₂ released in the atmosphere will not be utilised, resulting in a higher per cent of co2 in the atmosphere.

According to scientists, this will result in warming of the world temperature; disturbance in the climate etc., The CO₂ percent in the atmosphere has already reached 0.042 per cent against the normal of 0.03%. If this increases continuously higher temperature and other disturbances on the earth may bring unimaginaste miseries to mankind.

Climate amelioration

Forest increase local precipitation by about 5 to 10% due to their arographic and microclimatic

effect and create conditions favourable for the condensation of clouds .Forest reduce temperature

and increase humidity. It also reduces evaporation losses.

Soil and water conservation

Forests maintain the productivity of the soil through adding a large quantity of organic matter

and recycling of nutrients. The leaves are used as manure.

Tree crowns reduce the violence of rain and check splash erosion. Forests increase the

infiltration and water holding capacity of the soil, resulting in much lower surface runoff. This

inturn results in checking of soil erosion.

Forest checks floods. Forests intercept 15 to 30% of the caused due to siltation of river channels

caused due to erosion. Forests and trees reduce wind velocity considerably. Reduction of wind

velocity causes considerable reduction in wind erosion, checks shifting of sand dumes and halts

the process of desertification. Forests by reducing erosion check the siltation of irrigation and

hydel resources. Rapid siltation of various reservoirs in the country is the result of deforestation

in the catchment areas of these reservoirs.

Forest protect us from physical, chemical and noise pollution, dust and other particulates and

gaseous pollutants cause serious health problems. Forests protect as from these pollutants. Forest

and trees provide shelter and wind break effect which is beneficial to agricultural crops,

particularly in arid and semiarid areas and increase agricultural production.

Wildlife habitats; Trees act as a habitat for wildlife.

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presented the description of the methods and the procedures that was used in the case study, and they include: research design, sampling design, data collection techniques, Data collection sources, data processing, data analysis and the limitation of the study.

3.1 Research design

This involved a combination of quantitative and qualitative sampling of data collection as follows; Quantitative. This technique gives detailed information about the study area. The method gave a detailed relationship between forests and tourism development as gathered information form the study. Qualitative: This technique was used to show the distribution of scores, measurements which was presented in tables, charts and the interpretations of the findings that was collected by the researcher when actual research is exercised.

3.2 Study Population

The study population comprised of employees of Mabira Forest such as management of Mabira forest, tour guides, drivers and tourists, and local people around the among others and some members from Uganda Forestry Authority.

3.3 Sampling Procedure and Sample Size

The researcher used a sample size of 50 respondents were selected from employees of Mabira Forest such as management of Mabira forest, tour guides, drivers and tourists, and local people around the among others and some members from Uganda Forestry Authority.

Simple random sampling and purposive sampling was used in selecting the 50 respondents. This ensured that the sample is proportionately and adequately distributed among different categories of the respondents that is to say from the tourism industry bodies and also the people within the geographical area of study.

3.5 Data source

The study involved both secondary and primary source of data.

Primary data. Is the data that is collected by a researcher from first-hand sources, using methods like surveys, interview. Primary data was used because it is up to data information and is original information.

Secondary data. Is data which is gathered from studies, like books, surveys, or experiments that have been run by other people for other research. Secondary data was used because it saves efforts and expenses.

3.6 Data collection methods.

The research survey was used observation, questionnaire and the interview methods to collect data from the respondents, which was used to solicit data from the respondents regarding forests and local communities.

Questionnaire; the questionnaires are designed in a way that reflected the objectives of the study. Structured and unstructured questions were used to obtain data from the field. Closed ended questions were included in data collection from the respondents. Questionnaires were used because it covers a large number of people or organizations.

3.7 Data Processing

After data being collected, it was processed by first data gathering, data assembling, data editing classification, and data coding. Data was processed to ensure concreteness and accuracy. Data analysis was in form of quantitative and qualitative data.

3.8. Data Analysis and procedures

After collecting all the necessary data, the data was coded and edited, analyzed and rephrased to eliminate errors and ensure consistency. This involved categorizing, discussing, classifying and summarizing of the responses to each question in coding frames, basing on the various responses.

3.9 Data Presentation

Through descriptive statics outputs from Tables, Microsoft word and Microsoft Excel such as percentages of responses, frequencies were used for constructing table, figures, illustration and charts by using Microsoft office 2010.

3.9 Data Interpretation

The researcher used charts and tables to test the role played by forests in the development of local communities in Uganda.

3.9.1 Data Analysis and procedures

After collecting all the necessary data, the data was coded and edited, analyzed and rephrased to eliminate errors and ensure consistency. This involved categorizing, discussing, classifying and summarizing of the responses to each question in coding frames, basing on the various responses. This was eased the tabulation work. It helped to remove unwanted responses which considered insignificant. Data was collected from the field with the use of study instruments were classified into meaningful categories.

3.10. Ethical Considerations

- 1. The researcher attained an introductory letter from the institute to be used for accessing different targeted respondents.
- 2. The researcher obtained informed consent of the respondents on the arrival at the data collection sites.
- 3. The researcher observed and respected the privacy, confidentiality and anonymity of all the participants and respondents in this study.

3.11 Limitation of the study

i. A lot of money was required in this study. This involved buying data for internet, photocopying of articles, making phone calls, word processing, binding, transport. These increased the cost of the study. But the researcher solicited funds from the Guardians, friends, and in-laws

CHAPTER FOUR

ANALYSIS, PRESENTATION AND INTERPRETATION OF RESEARCH FINDINGS

4.0 Introduction

This chapter presents and discusses the implications of the results of the findings. The findings are presented in a tabular form, which was analyzed using frequencies and percentages.

4.1 Findings on the demographic characteristics of the respondents.

4.1.1 Findings on the gender of respondents.

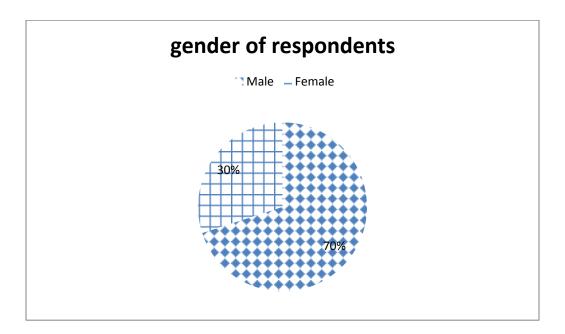


Figure 1: showing gender of respondents

Table 1: Showing the gender of the respondents

Gender of respondents	Frequency	Percentage
Male	35	70
Female	15	30
Total	50	100

Source: Primary Data, 2022

The findings from table 1 above show that 70% of the total respondents were males and 30% of the respondents were female, and this shows that study was dominated by males than females.

4.1.2 Findings on the marital status of respondents.

Table 2 showing marital status of respondents

Marital Status	Frequency	Percentage
Married	30	60
Single	20	40
Total	50	100

Source: Primary data

From table 2 it was revealed that 60% of the total respondents were married and 50% of the respondents were single. This implies that most of the respondents in the study were married and shows that they were well versed with the study questions and therefore findings can be relied on.

4.1.3 Findings on the age group of respondents.

Table 3 showing the age group of respondents

Age group	Frequency	Percentage
20-29	10	20
30-39	5	10
40-49	20	40
50-59	15	30
Above 60 years	-	-
Total	50	100

Source: Primary Data

From table 3 findings show that 20% of the total respondents were between 20 to 29 years old, 10% of the respondents were between 30-39 years, 40% of the total respondents were between 40-49 years, 30% of the respondents were between 50 - 59 years.

4.1.4 Findings on the level of education of respondents.

Table 4 showing the level of education of respondents

Level of education	Frequency	Percentage
Certificate	8	16
Diploma	12	24
Bachelor's degree	30	60
Master's degree	-	-
Total	50	100

Source: Primary data

From table 4 it was revealed that 16% of the total respondents were having certificates, 24% of the respondents were having diploma, 60% of the respondents were holding degree and this implies that most of the respondents were educated and this make the study to be reliable.

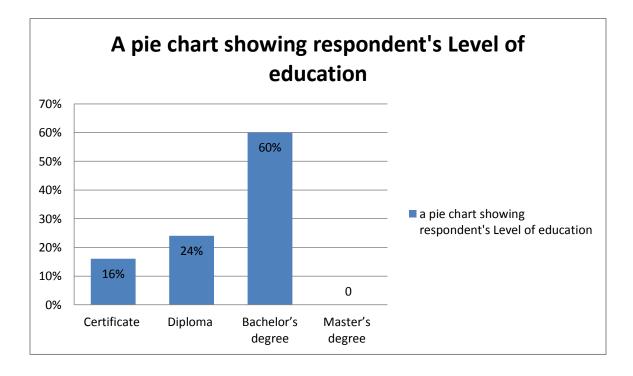


FIG. 2: A pie chart showing respondent's Level of education

4.2 FINDINGS ON THE CHALLENGES FACED BY NATURAL FORESTS IN UGANDA TABLE SHOWING FINDING ON THE CHALLENGES FACED BY NATURAL FORESTS IN UGANDA

	Strongly	agree	Not	Disagree	Strongly	Total
	agree		sure		disagree	
Local people living near	28(56%)	22(44%)	-	-	-	50(100%)
Mabira Forest solely						
depend on forest resources						
for their survival, hence						
over exploitation of forest						
resources.						
Increased Encroachment	42(84%)	8(16%)	-	-	-	50(100%)
from the community						
High rates of deforestation	36(72%)	14(28%)	-	-	-	50(100%)
and forest degradation						
High population growth	28(56%)	14(28%)	8(16%)	-	-	50(100%)
rate and urbanization						
Fires and livestock damage	38(76%)	7(15%)	5(10%)	-	-	50(100%)
to forest plantations						
Pests and diseases	38(76%)	12(24%)	-	-	-	50(100%)

According to study findings presented in the table above, it was revealed that 28(56%) of the total respondents strongly agreed that Local people living near Mabira Forest solely depend on forest resources for their survival, hence over exploitation of forest resources and 22(44%) agreed, this implies that Local people living near Mabira Forest solely depend on forest resources for their survival, hence over exploitation of forest resources.

According to study findings presented in the table above, it was revealed that 42(84%) of the total respondents strongly agreed that increased Encroachment from the community is one of the challenges faced by natural forests in Uganda, 8(16%) agreed, this implies that increased Encroachment from the community is one of the challenges faced by natural forests in Uganda.

From to study findings presented in the table above, it was revealed that 36(72%) of the total respondents strongly agreed that High rates of deforestation and forest degradation is one of the challenges faced by natural forests in Uganda, 14(28%) agreed, this implies that High rates of deforestation and forest degradation is one of the challenges faced by natural forests in Uganda.

According to study findings presented in the table above, it was revealed that 28(56%) of the total respondents strongly agreed that high population growth rate and urbanization is one of the challenges faced by natural forests in Uganda, 14(28%) agreed, 8(16%) were not sure, this implies that the high population growth rate and urbanization is one of the challenges faced by natural forests in Uganda.

From to study findings presented in the table above, it was revealed that 38(76%) of the total respondents strongly agreed that Fires and livestock damage to forest plantations is one of the challenges faced by natural forests in Uganda, 7(15%) agreed, 5(10%) were not sure, this implies that Fires and livestock damage to forest plantations is one of the challenges faced by natural forests in Uganda.

According to study findings presented in the table above, it was revealed that 38(76%) of the total respondents strongly agreed that Pests and diseases is one of the challenges faced by natural forests in Uganda, 12(24%) agreed, this implies that Pests and diseases is one of the challenges faced by natural forests in Uganda.

4.3 Finding on the roles played by natural forests in the growth of tourism

	Strongly	agree	Not	Disagree	Strongly
	agree		sure		disagree
Natural forests act as habitat for wild	28(56%)	22(44%)	-	-	-
animals which promotes tourism					
Natural forests are sources of natural and	42(84%)	8(16%)	-	-	-
rare tree species which attracts tourists in					
Uganda.					
Natural forests are sources herbs which	36(72%)	14(28%)	-	-	-
attracts tourists and promote tourism					
Natural forests facilitates camping for	28(56%)	22(44%)	-	-	-
tourists hence tourism development					

4.4 Relationship between natural forests and tourism development

	Strongly	agree	Not	Disagree	Strongly
	agree		sure		disagree
There is a stronger positive relationship	28(56%)	14(28%)	8(16%)	-	-
between natural forests and tourism					
development					
Natural forest have provided food for	38(76%)	7(15%)	5(10%)	-	-
wild animals like gorillas which has					
attracted tourists hence tourism					
development					
Natural forests helps in the formation	38(76%)	12(24%)	-	-	-
of rainfall facilitating heavy favourable					
weather climate and hence tourism					
development					

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents summary of findings, conclusion and recommendations made by researcher.

5.1 Summary of findings

5.1.1 Finding on the roles played by natural forests in the growth of tourism

From the study findings, it was revealed that Natural forests act as habitat for wild animals which promotes tourism, Natural forests are sources of natural and rare tree species which attracts tourists in Uganda, Natural forests are sources herbs which attracts tourists and promote tourism and Natural forests facilitates camping for tourists hence tourism development

5.1.2 Findings on the challenges faced by natural forests in Uganda

According to study findings, it was revealed that 28(56%) of the total respondents strongly agreed that Local people living near Mabira Forest solely depend on forest resources for their survival, hence over exploitation of forest resources, it was revealed that 42(84%) of the total respondents strongly agreed that increased Encroachment from the community is one of the challenges faced by natural forests in Uganda, it was revealed that 36(72%) of the total respondents strongly agreed that High rates of deforestation and forest degradation is one of the challenges faced by natural forests in Uganda, it was revealed that 28(56%) of the total respondents strongly agreed that high population growth rate and urbanization is one of the challenges faced by natural forests in Uganda, it was revealed that 38(76%) of the total

respondents strongly agreed that Fires and livestock damage to forest plantations is one of the challenges faced by natural forests in Uganda, and Pests and diseases is one of the challenges faced by natural forests in Uganda.

5.1.3 Relationship between natural forests and tourism development

It was revealed that there is a stronger positive relationship between natural forests and tourism development, Natural forest have provided food for wild animals like gorillas which has attracted tourists hence tourism development and Natural forests helps in the formation of rainfall facilitating heavy favourable weather climate and hence tourism development.

5.2 Conclusion

From the study finding it is concluded that natural forests have led to development of tourism in Uganda. It was revealed that there is a stronger positive relationship between natural forests and tourism development, Natural forest have provided food for wild animals like gorillas which has attracted tourists hence tourism development

REFERENCES

A Natural Hist01y ofEurope - (2005) co-production including BBC and ZDF Barrow, C.J, (I 99 I): Land Degradation Development and Breakdown of Terrestrial Environment. Cambridge University Press.

BBC 2005 TV series on the history of geological factors shaping human history (name?) Bitariho, R.,(1998) The comparative study of the abundance and utili-zation modes of montane bamboo (*Synarundinaria alpina*) inBwindi Impenetrable National Park and Mgahinga Gorilla Na-tional Park South Western Uganda. M Sc thesis, Makerere Uni-versity, Kampala.

Byarugaba, D.,(1997) Stingless bees (1-lymenoptera, Apdae, Meliponi-nae) and Abayanda honey-hunters: A study linking bee ecology and indigenous knowledge, M Sc thesis, Makerere University, Kampala,.

Baur, G. N. (1962). The Ecological Basis of Rainforest Management. Blight Government

Printer, New South Wales.

Collins, N.M (1991): Nature Conservation in Uganda's Tropical Forest Reserves (IUCN) Gland Switzerland.

FAO&CIFOR report (1995): Forests and Floods: Drowning in Fiction or Thriving on Facts?

Forest Department (FD),(1997) The status of the biomass in Uganda.Biomass Study Report, Ministry of Environment, Water, Landsand Natural Resources.

Forest Department (FD),(1999) The status of the biomass in Uganda.Biomass Study Report, Ministry of Environment, Water, Landsand Natural Resources.

Forest Department (FD), (2000), Forest Secretariat, National Forest Plan consultations. Unpub-lished reports on the restructuring of the forest department.

36

Gaudie (I 993). The Human Impact on the Natural Environment (6th ed.)

Gilbert B (I 993),s Nature Conservation 111 Uganda's Tropical Forest Reserves, IUCN,

Gland, Switzerland,

IUCN, (199 I): Protected Areas of the World: A Review of National System, Volume 4 Kityo, P. W., (1991) Natural Gums and Resins (Uganda) Technical Re-port, Nakawa Forest Research Centre, Kampala.

MFEP, (1994) (Ministry of Finance and Economic Planning), The 199 I Population and Housing Census (National Summary), Govern-ment Printer, Entebbe.

Nallll, K. Shastree (1997): Environmental Resource Management. Ammo! Published Put

Ltd. New Delhi, India

National Biomass Study, (1992), A review of the energy resources in forest reserves of Uganda. Forest Department, Nakawa,.

NEMA, (2005), State of Environment Report for Uganda, Kampala.

Sustainable Energy Development, (1995) Energy resources in the central Uganda. Unpublished rep

QUESTIONNAIRE

Dear respondent

I am a student of Muteesa I Royal University pursuing a bachelor's degree, as required by the university to carry out research, I kindly request you to answer the questions below which were designed to collect information was randomly selected to be the case study for this study please I kindly request you to fill in boxes provided, I promise that the information provided will be treated confidentially for academic purpose only. Thank u in advance.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender				
Male		Female		
2. What is yo	ur Education le	evel?		
Secondary	Certificate	Diploma	Bachelor	PHD
3. Length of	service in the N	lational Park		
Less than 3yr	rs 3-10yrs	More t	han 10yrs	
4. Age group				
18-25yrs	25-35yrs	s abo	ve 35yrs	

SECTION B: What are the challenges faced by natural forests in Uganda

	Strongly	agree	Not	Disagree	Strongly
	agree		sure		disagree
Local people living near Mabira Forest solely depend on forest resources for their					
survival, hence over exploitation of forest resources.					
Increased Encroachment from the community					
High rates of deforestation and forest degradation					
High population growth rate and urbanization					
Fires and livestock damage to forest plantations					
Pests and diseases					

SECTION C: What are the roles played by natural forests in the growth of tourism

	Strongly	agree	Not	Disagree	Strongly
	agree		sure		disagree
Natural forests act as habitat for wild					
animals which promotes tourism					
Natural forests are sources of natural and					
rare tree species which attracts tourists in					
Uganda.					
Natural forests are sources herbs which					

attracts tourists and promote tourism			
Natural forests facilitates camping for			
tourists hence tourism development			

SECTION D: Relationship between natural forests and tourism development

	Strongly	agree	Not	Disagree	Strongly
	agree		sure		disagree
There is a stronger positive relationship					
between natural forests and tourism					
development					
Natural forest have provided food for wild					
animals like gorillas which has attracted					
tourists hence tourism development					
Natural forests helps in the formation of					
rainfall facilitating heavy favourable					
weather climate and hence tourism					
development					