

**ASSESSMENT OF COMMUNITY-BASED ECOTOURISM AS A CONSERVATION  
STRATEGY FOR AREAS AROUND QUEEN ELIZABETH NATIONAL PARK IN  
KASESE DISTRICT, WESTERN UGANDA**

**BY**

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## DECLARATION

I **SONGHA RAMADHAN**, hereby declare that this dissertation titled “*ASSESSMENT OF COMMUNITY-BASED ECOTOURISM AS A CONSERVATION STRATEGY FOR AREAS AROUND QUEEN ELIZABETH NATIONAL PARK IN KASESE DISTRICT, WESTERN UGANDA*” is authentic, original, and has never been submitted to any higher institution or university for an academic award.

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**APPROVAL**

We the undersigned verify that this dissertation entitled “*ASSESSMENT OF COMMUNITY-BASED ECOTOURISM AS A CONSERVATION STRATEGY FOR AREAS AROUND QUEEN ELIZABETH NATIONAL PARK IN KASESE DISTRICT, WESTERN UGANDA*” was done by SONGHA RAMADHAN, under our supervision and is ready for submission with our approval.

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## **DEDICATION**

I dedicate this dissertation to the Ali family; Aisha, Ammar, and Radhia.

## **ACKNOWLEDGEMENT**

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## **LIST OF ABBREVIATIONS**

CBA	Community-Based Conservation
CBET	Community-Based Ecotourism
CM	Collaborative Management
KI	Key Informant
MWE	Ministry of Water and Environment
NEMA	National Environment Management Authority
NGOs	Non-Governmental Organisation
NSOER	National State of Environmental Report
QENP	Queen Elizabeth National Park
SDGs	Sustainable Development Goals
UWA	Uganda Wildlife Authority

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## ABSTRACT

Queen Elizabeth National Park's limited range of community-based ecotourism activities and services, along with weak community engagement and poor attitudes, constrains the full potential of ecotourism as a sustainable development model. This study assessed ecotourism activities, community involvement, and the socioeconomic and environmental benefits in Lake Katwe and Muhokya sub-counties, Kasese District. Data were collected from 333 household representatives and 21 key informants, including tourism officials, guides, rangers, tourists, and local leaders. Structured questionnaires and interviews were used, with multiple response analysis and Pearson's chi-square test to examine the prevalence of ecotourism activities and community involvement differences. Findings revealed key ecotourism activities, such as cultural experiences, community-managed trails, and local food tours, while dominant services included community conservation projects (70.3%), community lodges (57.4%), and community-managed tours (54.7%). Community involvement was highest in revenue sharing (83.2%) and conflict resolution (69.4%), with strong participation in meetings, cultural preservation, and environmental education. Although ecotourism fosters livelihood diversification, skills development, and conservation incentives, limited activity variety and community engagement hinder its full impact. Strengthening conservation practices, enhancing community participation, and promoting long-term planning are recommended to maximize ecotourism's benefits for conservation and local development.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background to the Study

Community-based Ecotourism has emerged as a pivotal framework globally, blending environmental conservation with local and economic development. While ecotourism broadly refers to nature-centered tourism aimed at minimizing negative impacts and supporting conservation, its interpretation varies among tourism and environmental groups (Sangpikul, 2017). Efforts in ecotourism increasingly support sustainable development, intertwining responsible tourism with conservation (Wiederkehr et al., 2018) and making it a vital strategy worldwide (Xiao-li & Liu, 2010). When involving local communities in ecotourism planning and management, it becomes “community-based ecotourism” (CBET), emphasizing the empowerment of residents and ensuring they benefit directly from tourism while protecting their environment and heritage (Kinsman, 2021). This engagement can incentivize conservation by giving local communities a stake in tourism, especially in areas with rich biodiversity but facing threats like habitat destruction, poaching, and human-wildlife conflict. CBET contributes not only to local economic development but also to visitors’ appreciation of the natural and cultural landscape.

Sustainable development aims to improve living standards such as access to healthcare, education, and clean environments—while preserving resources for future generations (IISD, 2017; World Health Organization, 2017). By balancing economic, social, and environmental needs, sustainable development aligns with the goals of ecotourism. Since its introduction in the 1980s, ecotourism has grown into a significant global industry, with rates of growth between 10% and 15% annually (Noh, 2020b), currently valued over \$300 billion, primarily benefitting developing countries (Pornprasit & Rurkkhum, 2019). Africa’s ecotourism market has particularly expanded, with popular destinations in East and Southern Africa attracting international visitors for experiences like safaris, gorilla trekking, and cultural tours (ONDICHO, 2018). Uganda’s diverse ecosystems and rich biodiversity, particularly in areas like Queen Elizabeth National Park (QENP), make it an ideal location for ecotourism, attracting international attention for its unique wildlife and cultural heritage (National Planning Authority, 2020; Okello, 2004). In Uganda, ecotourism has been instrumental in conserving endangered species, such as mountain gorillas, while enhancing rural livelihoods.

Community-based ecotourism can yield direct benefits for rural areas through job creation and indirect benefits from environmental conservation (Koki, 2017). When effectively implemented, CBET can drive sustainable tourism, creating opportunities for marginalized and rural communities, promoting social and economic well-being, and fostering environmental and cultural preservation (Mugerwa, 2018; Nugroho et al., 2016). Ecotourism development initiatives in Uganda, facilitated through collaborations with stakeholders like the Uganda Wildlife Authority (UWA), the Uganda Tourist Board, NGOs, and local communities, aim to increase income-generating opportunities for local people through tourism-focused services (Mugerwa, 2018; Campbell et al., 2011).

Uganda's level of community involvement in ecotourism is strong, especially near conservation areas, where communities gain rights and responsibilities toward managing natural resources (Campbell et al., 2011). Queen Elizabeth National Park, a UNESCO Biosphere Reserve in Western Uganda, exemplifies the potential for CBET to act as a sustainable conservation model. QENP's diverse landscapes support a wide range of wildlife and attract tourists from across the globe, presenting an opportunity to develop CBET further (Musinguzi & Muzaale, 2019). Traditionally, communities surrounding QENP have relied on agriculture, leading to conflicts with conservation goals as they encroach on protected lands (Musinguzi & Muzaale, 2019). With limited non-agricultural livelihoods, CBET offers an alternative, supporting employment that aligns with conservation efforts (Uganda Wildlife Authority, 2012). However, challenges remain, including land-use pressures outside QENP boundaries and contested revenue-sharing arrangements. For instance, UWA's revenue-sharing policy, revised in 1998, allocates only 20% of entry fees to community development, a source of contention with local governments (Sam & Moses, 2021). Moreover, issues arise from cross-border challenges with the Democratic Republic of Congo, where a lack of security hinders coordinated conservation efforts.

This research examines the role of CBET in QENP, focusing on existing CBET activities, community engagement, policy frameworks, and governance effectiveness. QENP and its surrounding areas serve as a representative landscape for exploring CBET's broader implications for sustainable conservation. This study contributes to understanding CBET's potential as both a conservation tool and a pathway to socioeconomic development for communities at conservation

borders, offering insights to policymakers, conservationists, and stakeholders on designing and implementing future CBET initiatives.

## **1.2 Statement of the Problem**

Despite its potential to harmonize conservation and socioeconomic development, community-based ecotourism (CBET) around Queen Elizabeth National Park (QENP) faces significant challenges that require comprehensive assessment to realize its intended benefits. The primary concern centers on whether CBET can be effectively harnessed as a sustainable conservation strategy without compromising the livelihoods of local communities or the environmental integrity of the area. The population living near QENP relies heavily on the park's natural resources for subsistence, often leading to detrimental practices like poaching and deforestation, which threaten the area's rich biodiversity (Uganda Wildlife Authority, 2012). Although CBET has been proposed as an alternative livelihood strategy promoting environmental conservation and economic benefits, there is limited information on its actual impact on wildlife conservation and community development (Queen Elizabeth National Park Kyambura Wildlife Reserve Kigezi Wildlife Reserve Community-Based Wildlife Crime Prevention, 2023). Additionally, concerns exist over the adequacy of existing CBET structures, equitable benefit distribution, and the degree of genuine community engagement and empowerment in tourism planning and management (Kihima, 2016). There is also a need to assess the regulatory and policy frameworks governing CBET operations and their effectiveness in ensuring sustainable practices and conflict resolution. Moreover, the environmental carrying capacity to support tourism activities alongside local biodiversity conservation has not been comprehensively addressed in existing literature (Sitorus et al., 2017). There is a scarcity of quantitative data on the socioeconomic improvements for local communities through job creation and revenue generation, highlighting a gap in knowledge on the relationship between these factors and conservation perceptions (James & Tonny, 2019; Park, 2006; Queen Elizabeth National Park Kyambura Wildlife Reserve Kigezi Wildlife Reserve Community-Based Wildlife Crime Prevention, 2023). This study aims to investigate the conservation measures implemented under CBET, assess community participation, explore the socioeconomic and environmental impacts of CBET, and ultimately bridge the gap between conservation imperatives and community welfare

needs, offering evidence-based recommendations for a more holistic approach to sustainable ecotourism practices around QENP.

### **1.3 Objectives and Research Questions**

#### **1.3.1 General Objective**

The main objective of this study is to examine the community-based ecotourism as a conservation strategy around areas Queen Elizabeth National Park in western Uganda.

#### **1.3.2 Specific Objectives**

The specific objectives are:

- i. To establish community-based ecotourism activities and services around Queen Elizabeth National Park areas in Kasese District.
- ii. To determine the level of community participation in community-based ecotourism around Queen Elizabeth National Park Areas in Kasese District.
- iii. To examine the socio-economic and environmental contribution of community-based ecotourism around Queen Elizabeth National Park areas in Kasese District.

#### **1.3.3 Research Questions**

- i. What are the community-based ecotourism activities and services in the Queen Elizabeth National Park areas in Kasese District?
- ii. What is the level of participation of the local community towards ecotourism development around Queen Elizabeth National Park Areas in Kasese District?
- iii. How does community-based ecotourism contribute to the socio-economic development and environmental conservation around queen Elizabeth National Park Areas in Kasese District?

## **1.4 Significance of the Study**

Based on the study's findings, an examination of the applicability of community-based ecotourism in Uganda's tourist destinations might be made. In relation to the factors that influence how tourism for the various ecological tourist destinations develops, the study's findings may contribute and also add important information. It is believed that the study's findings would help policy makers understand the critical issues that must be addressed in order to boost the effectiveness of tourism development in the tourism industry, which is still grappling with concerns related to ecotourism. It was hoped that the study's findings would help direct future ecotourism-related tourism research for better tourist development in Uganda. The study's results are also expected to advance our understanding of the relationship between ecotourism and development in the tourism sector.

## **1.5 Justification of the Study**

The Kasese district is home to a number of tourist attractions, such as the Mountain Rwenzori National Park and the Queen Elizabeth National Park, which are two of Uganda's top ecotourism destinations. However, the ongoing community conflicts, security issues, and inadequate infrastructure development, among other things, pose a serious threat to the growth of the tourism industry. It should be highlighted that a variety of parties, including the government, tourists, locals, employees, and the international community, are active in community-based ecotourism, particularly with regard to Queen Elizabeth National Park. The interests of all the different stakeholders must, therefore, be taken into account in order to affect any progress in the areas surrounding Queen Elizabeth National. This needs the joint cooperation of all the stakeholders. On that note, the weak ties between the many stakeholders have harmed the local community in many ways, resulting in a slow growth of tourism in the region. Although community-based ecotourism can contribute, there has been a gradual uptake over time, which has had a detrimental impact on the growth of the tourism industry. The need to evaluate the impact of community-based ecotourism on the development of tourism in Queen Elizabeth National Park resulted from this. The study might help to reduce human-wildlife conflicts in the community and the park and increase local support for conservation, which is UWA's main objective.

## **1.6 Scope of the Study**

### **1.6.1 Geographical Scope**

The study centered around Western Uganda's Kasese district. Kasese district was selected over Kabarole and Bundibugyo because it is a more often visited tourist destination (Sam & Moses, 2021). The study was limited to the Lake Katwe and Muhokya sub-counties in communities that participate in community-based ecotourism around Queen Elizabeth National Park. Community-based ecotourism activities are reported in Leopard Village, Bwenanule Trading Center, Kihendero, and Ihamba (Uganda Wildlife Authority, 2012).

### **1.6.2 Content Scope**

The primary aim of the research was to assess the community-based ecotourism as a conservation strategy among communities within the vicinity of Queen Elizabeth National Park. The study examined the CBET potential in terms of flora and fauna conservation measures enforced, CBET activities and services around Queen Elizabeth National Park. It also assessed the degree of community involvement in the development of ecotourism, and examined the contribution to the socio-economic and environmental development of the areas.

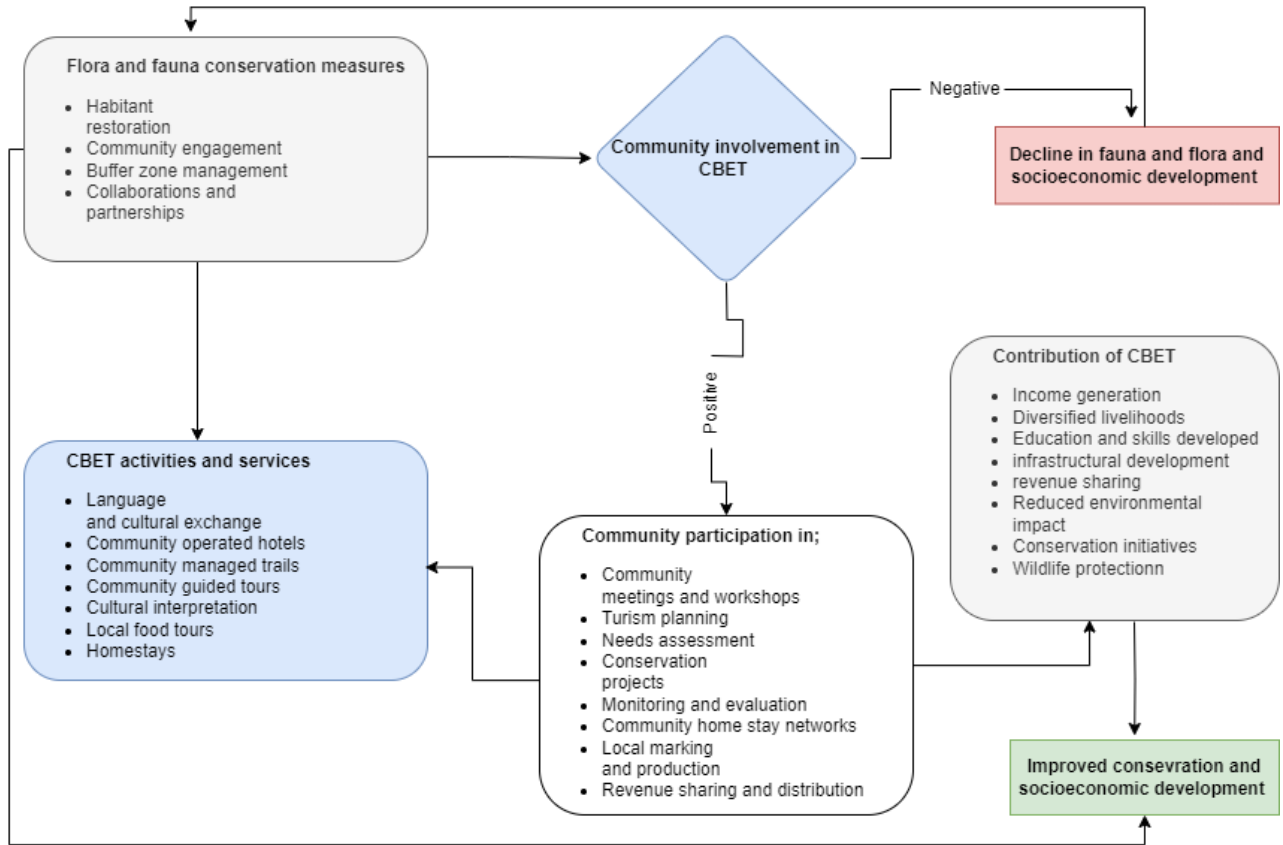
### **1.6.3 Time Scope**

The study resources covered a period 2010 to 2023 corresponding to when community-based ecotourism in study area attracted more concern in tourism development in Uganda's. Queen Elizabeth National Park is one of the most intensively visited tourist areas due to the variety of tourist attractions in the area and form part the great Mount Rwenzori Tourist sanctuary (Sam & Moses, 2021).

## **1.7 Conceptual Framework**

Community-based ecotourism is a conservation approach that enables realization of both conservation and community welfare objectives. The indicators for measuring the contribution of CBET include partnerships in ecotourism, culture preservation, and environmental education

(Charles et al., 2021). In this study' conceptual framework (Figure 1.1), was hypothesized that a conservation area (Queen Elizabeth National Park) following the CBET approach for both conservation and socio-economic development objectives undertakes fauna and flora conservation measures such as habitat restoration, community engagement, buffer zone management, collaborations and partnerships to offer tourism activities and services such as language and cultural exchange programs, community operated hotels, community managed trails, community guided tours, cultural interpretation, local food tours, homestays and others. In this approach, community members may or may not choose to participate in CBET activities like community meetings and workshops, tourism planning, needs assessment, conservation projects, monitoring and evaluation, community home stay networks, local marketing and production, revenue sharing and distribution among depending on their perception of the approach. Where CBET has contributed to conservation and development, it is evidenced by income generation avenues, diversified livelihoods, education and skills developed, infrastructural development, revenue sharing, ability to afford school and medical dues by the participating households in the community, reduced environmental impact, conservation initiatives, wildlife protection among others. Conservation and socio-economic development were hypnotized as the dependent variables while wildlife conservation measures, CBET activities and services were treated as independent variables.



**Figure 1.1: Conceptual framework of the study**

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter looks at and reviews various related existing literature on community-based ecotourism and sustainable development in line with the set objectives. The information was got from reliable sources like research papers, reports, journals and text books.

### **2.2 Community-Based Ecotourism Activities and Services**

#### **2.2.1 Nature Conservation**

The critical role of nature conservation in maintaining biodiversity, ecosystem services, and sustainable development is universally acknowledged. Researchers across various disciplines have contributed to our understanding of conservation measures, their effectiveness, and the challenges they face. Pullin (Pullin, 2012) expands our understanding of the history and methods of protected area designation, arguing for the protection of ecosystems as a means of conserving biodiversity. Meanwhile, McIntosh et al. (2017) emphasize the necessity of systematic conservation planning and the importance of selecting representative and cost-effective conservation areas. The assessment of protected areas as a conservation measure has been widely debated. Ghoddousi et al. (2022) illustrate how protected areas can function successfully if well-managed and adequately resourced. However, there are a number of complexities involved in ensuring protected areas achieve their intended conservation outcomes, especially issues related to their location and management effectiveness (Kirigia, 2016; Pressey et al., 2015).

Community-based conservation strategies have become increasingly prominent in conservation literature. Galvin et al. (2018) stresses the importance of involving local communities in management decision-making, revealing how CBC can lead to better outcomes for both conservation and local livelihoods. Community-based ecotourism is one of the CBC strategies. Market-based instruments such as payments for ecosystem services are documented by Wang and Wolf (2019) as economically viable conservation strategies. PES incentivizes landowners and users to manage resources sustainably, aligning economic and ecological objectives. The impacts of climate change on conservation strategies are a growing concern. Pant et al. (2022) address the need

for adaptive management in conservation, ensuring resilience of ecosystems and biodiversity amidst changing climate conditions. The role of local knowledge and cultural practices in conservation is critically evaluated by Arsad et al. (2021) who propose the integration of traditional ecological knowledge as a valuable complement to scientific knowledge, enhancing the effectiveness of conservation efforts. Rastogi et al. (2014) detail the socio-political challenges conservation measures often encounter, including the need for better governance, legal frameworks, and the engagement of stakeholders to mitigate conflict and ensure successful implementation of conservation policies. Effective conservation requires integrative strategies that are adaptive and inclusive, balancing ecosystem protection with the needs and rights of local communities.

### **2.2.2 Ecotourism and Community-Based Ecotourism**

Ecotourism emerged from the global environmental conservation initiatives of the 1970s, linking eco-development efforts to mitigate environmental abuse caused by government and industrial practices (Fennell, 2003). Significant factors in its growth include the connection to environmentalist movements of that time and growing discontent with mass tourism due to overdevelopment, pollution, and cultural degradation (Hosseini et al., 2021). The term "ecotourism" gained prominence in the late 1980s as a result of increased awareness of sustainable practices (Dowling, 1991). This shift, combined with heightened ecological sensitivity, has led to a rising demand for ecotourism (Blamey, 2001).

Ecotourism encompasses both active and passive definitions, focusing on the role of tourists in supporting environmental protection (Kihima, 2016; Saidmamatov et al., 2020). For instance, Kenya's nature-based tourism benefits from its rich wildlife, while Costa Rica leverages its diverse ecosystems (Makindi, 2016). Key guiding principles of ecotourism emphasize sustainability, education, and community welfare (Fennell, 2003; Megan, 2002). According to Akbar et al. (2021), ecotourism should prioritize nature-based attractions, educational interactions, and sustainability practices. Its main goal is to educate visitors about environmental conservation rather than merely entertain them (Gilbert, 1997). Initially focused on protected natural areas, ecotourism has evolved to include pro-poor, sustainable, and responsible tourism, all aimed at conservation and community benefits (Ashley et al., 2001).

Community-based ecotourism (CBET) has emerged as a sustainable approach, empowering local communities to manage tourism while conserving natural resources. It emphasizes community participation and equitable benefit-sharing (Puspitasari & Prasetyoningsih, 2021). Theoretical models of CBET highlight sustainable development, stakeholder participation, and ecosystem carrying capacity (Ayala, 1996). Evidence suggests that when local communities benefit from ecotourism, practices like poaching and illegal logging decrease (Nikolova et al., 2021).

In Uganda, ecotourism is a rapidly expanding sector, with most attractions reliant on natural environments. Regulations limit visitor numbers to protect biodiversity, as seen in the Bwindi and Mgahinga national parks (Twongyirwe et al., 2013). Ecotourism aligns with Uganda's rich natural resources and cultural heritage, although stronger marketing is needed to enhance its benefits (Ecotourism Forum V1 Uganda, 1994). Successful CBET requires supportive policies, governance, community rights, and capacity building. Infrastructure improvements are also critical to support tourism and conservation efforts (Newsham et al., 2018). Collaborative efforts among stakeholders, including government, NGOs, and local communities, are essential for equitable benefit distribution and mitigating negative impacts (Nugroho et al., 2018).

### **2.2.3 Community-Based Ecotourism Activities**

Community-based ecotourism (CBET) activities encompass a variety of experiences and engagements offered to visitors within the CBET framework. These activities promote educational and entertaining interactions, fostering cultural exchange and environmental awareness. The diversity of CBET activities is extensive and includes guided nature walks, wildlife spotting tours, cultural immersion experiences such as local festivals and traditional ceremonies, hands-on learning opportunities like agricultural tours and craft-making demonstrations, and environmental conservation efforts such as tree planting or beach cleanups. Adventure activities like hiking, kayaking, and bird watching are also integral to the CBET experience (Higham & Lück, 2019).

Studies indicate that CBET activities, when integrated with local knowledge and practices, can yield positive conservation outcomes. Arsad et al. (2021) find that activities like bird watching and nature hikes, guided by local experts, enhance environmental awareness and encourage pro-conservation behaviors among tourists. Agayi (2020) highlights the role of CBET in fostering

cultural exchange and supporting local livelihoods, while Kunjuraman (2022) emphasizes its potential to bolster local economies by redirecting tourism revenues to communities. However, Kihima (2016) cautions that while the direct economic benefits are evident, issues such as over-dependence on tourism and resource sustainability must be addressed to avoid undermining the very attributes that attract visitors.

Despite their benefits, CBET activities face challenges, as noted by Mafi et al. (2020), including difficulties in accessing markets, maintaining the quality of experiences, and balancing tourist expectations with conservation goals. Poorly managed CBET initiatives can lead to environmental degradation and cultural disruption.

#### **2.2.4 Community-Based Ecotourism Services**

Community-based ecotourism (CBET) services encompass the facilities and amenities provided to tourists to enhance their overall experience and support their stay. These logistical aspects ensure that visitors' needs are met, contributing to their comfort, convenience, and safety. CBET services include accommodation options like homestays, guesthouses, or eco-lodges; transportation services for access to various CBET sites; visitor centers and educational materials; food and catering services showcasing local cuisine; and guide and translation services to facilitate understanding and interaction. While activities refer to what tourists do during their visit—directly related to the community's environmental and cultural assets—services pertain to how the community supports and manages tourists' stays. Both elements are integral to the CBET experience, each serving a unique purpose in ensuring the initiative's success and sustainability.

CBET services play a pivotal role in facilitating authentic experiences that promote environmental stewardship and local empowerment. Researchers have increasingly emphasized the quality and sustainability of these services due to their significant impact on the effectiveness of CBET initiatives. Early literature on ecotourism primarily focused on conservation and minimizing environmental impact, often overlooking community aspects until more recent years. The narrative shifted towards a more holistic approach, advocating for community benefits alongside conservation efforts, as theorized by Scheyvens and Stronza (Rhama, 2017).

Empirical studies (e.g., Masud et al., 2017; Ouma & Stadel, 2021) highlight the importance of local participation not only in the design and management of ecotourism activities but also in providing services. Involving local people in service delivery is often linked to increased economic benefits, cultural preservation, and positive conservation outcomes. Literature has documented the economic impacts of CBET services, particularly on rural economies. Telfer and Sharpley note that when communities own and manage these services, the resulting economic benefits can be substantial, leading to improved livelihoods. Conversely, mismanagement can result in community disenfranchisement and economic leakage.

Quality services are a cornerstone of successful CBET. Researchers like Weaver argue that high-quality services are essential for visitor satisfaction, which is crucial for the sustainability and competitiveness of CBET. Studies (e.g., Pookhao Sonjai et al., 2018) emphasize that sustainability in CBET services necessitates environmental management, capacity building, and education as core components. Despite the potential benefits, CBET service provision faces challenges, including inadequate infrastructure, lack of professional training, and minimal marketing, as highlighted by Juma & Khademi-Vidra (2019). These issues underscore the need for support mechanisms and infrastructure development in community settings.

### **2.3 Level of Community Participation in Community-based Ecotourism**

Community involvement in ecotourism offers numerous advantages, as noted by Masud et al. (2017). These benefits include promoting democratic processes, amplifying the voices of those directly affected by tourism, leveraging local knowledge for informed decision-making, and potentially reducing friction between visitors and residents. Additionally, since taxes largely fund tourism infrastructure, communities already contribute financially to its development. Many community members engage in tourism to exert influence, if not power, over the outcomes of their local tourism growth (Thomas, 2013).

However, community-based ecotourism development in Ghana, as noted by Dei LA (2000), can infringe upon communal property. This awareness has led those developing ecotourism projects to recognize the importance of involving locals. The land tenure system in Ghana integrates traditional self-help programs, which are community-centered and facilitate local engagement, thereby

protecting communities against exploitation. Among Ghana's tourist attractions, particularly in the Brong-Ahafo Region, are national parks, natural reserves, waterfalls, cultural landmarks, and diverse flora and fauna. For locals to grasp the benefits of tourism and support its growth, their involvement in tourism development initiatives is essential. Community participation can pave the way for the environmentally sound development of these local tourist attractions.

Kunjuraman (2022) identifies various forms of community involvement in ecotourism, including revenue sharing, entrepreneurship, employment opportunities, and the sale of tourist goods. Ecotourism typically requires more labor and provides better opportunities for small businesses, thereby benefiting local communities (Scheyvens, 2007). Given that ecotourism occurs within the community, it is viewed as a significant source of employment, particularly for women and informal sector workers.

As small business entrepreneurs harness local natural and cultural resources to create ecotourism products and services—such as handicrafts—community involvement generates job opportunities (Scheyvens, 2007). Tosun (2010) highlights that working in the tourism industry enables local communities to support industry growth while reaping various rewards, including economic benefits. Furthermore, Tosun (2000) notes that community participation in developing countries yields greater economic benefits by creating employment opportunities and promoting small businesses. Participation in tourism through employment has immediate effects on impoverished households, as it channels economic benefits to the family level, thereby reducing poverty (Muganda, 2009).

In a study of indigenous groups in Botswana's Okavango Region, Mbaiwa and Stronza (2010) found that ecotourism has replaced traditional income sources for many residents. Similarly, Pornprasit & Rurkkhum, (2019) documented significant benefits to local communities in Belize from tourism, including providing accommodation and services to tourists and selling handicrafts.

Measuring community participation in community-based ecotourism involves evaluating the extent and quality of local engagement in all facets of ecotourism development and operation. Various methods are employed for this assessment (Sitorus et al., 2017). Some approaches include surveys and questionnaires that utilize comprehensive tools to collect data on community member

involvement in ecotourism projects, while others involve interviews with stakeholders for in-depth qualitative insights (Teeroovengadum, 2019). Additional methods may include participation matrices and participatory appraisals.

Indicators for measuring community involvement are crucial for assessing the effectiveness and sustainability of ecotourism initiatives. These indicators help determine the extent to which local communities are involved in and benefiting from ecotourism activities. Common indicators include the degree of community representation in decision-making bodies overseeing ecotourism projects, the share of ecotourism revenue that directly benefits the community—including income from jobs and community-owned enterprises, the proportion of local residents employed in the ecotourism sector compared to external hires, the extent of community ownership of ecotourism enterprises measured by the number of community-run or owned businesses, and evaluation of educational and training programs provided to community members to enhance relevant skills.

Other indicators include active community participation in environmental preservation and wildlife conservation linked to ecotourism, integration and representation of the community's cultural heritage in the ecotourism experience, local communities' rights to access natural resources and infrastructure developed for ecotourism, and the existence and effectiveness of processes to address and manage conflicts between community interests and ecotourism operations (Harilal et al., 2021).

#### **2.4 Socioeconomic and Environmental Contribution of Community-Based Ecotourism**

Due to the involvement of local communities and the fact that a bigger portion of the revenue is maintained locally, community-based ecotourism rewards the nation both socially and economically. This is due to the fact that ecotourists and ecotourism businesses are concerned about the environment when selling their products. Ecotourism is a recurring industry, and it promotes cooperation between the public and commercial sectors. Community-based ecotourism raises living standards, for instance by giving people more money to spend (Pornprasit & Rurkkhum, 2019). Besides, community-based ecotourism is a recurring industry, and it promotes cooperation between the public and commercial sectors. Furthermore, a key idea underlying the growth of community-based ecotourism is the empowerment of communities. Long-term economic benefits from ecotourism can be appropriately split among the host communities and utilized to fund ongoing

infrastructure improvements (Newsham et al., 2018). Additionally, ecotourism can help the locals feel empowered emotionally by raising their self-esteem and creating pride in their natural and cultural heritage (Kihima, 2016). Additionally, ecotourism may strengthen social links within the community through encouraging cooperation among its members.

However, community-based ecotourism fosters political empowerment by providing a platform for the voicing of citizens' opinions on matters of local development (Ma et al., 2019). The concept of community-based ecotourism development seems to suit most of the goals listed in the definition of sustainable tourism, as it provides a means of both long-term economic growth and social empowerment for the local communities (WWF-International, 2001). This holds even more significance for small, rural, and isolated areas that often lack the attention and assistance of the government. For these communities, ecotourism is extremely important for self-development since it gives people the chance to use their own inner resources and skills to become more self-sufficient (Moswete et al., 2009).

Maximizing the advantages of community-based ecotourism is, according to Noh (2020b), the most obvious rationale for starting an ecotourism project. This can be accomplished by boosting the market for regional products, such as vegetables, antiques, and value-added commodities made locally, thus upholding customs. Increased income for neighbourhood companies and other services, such as healthcare, banking, car rentals, cottage industries, gift shops, and tourist attractions, can also be gained in this way. However, like in the cases of eco-tour guides, retail sales assistants, and restaurant table servers, it promotes the utilization of local labour and expertise (Koki, 2017). Additionally, It also provides money for the preservation, improvement, and upkeep of cultural heritage markers and natural attractions (Ondicho, 2012). In particular, it promotes community awareness of the value of the indigenous environment and culture in the area. The main goals of community-based ecotourism are to support the local economy and communities (Ondicho, 2012). All parties involved in community-based ecotourism also want this result.

Nugroho et al. (2016) claims that tourism investment generates employment opportunities, whereas Sitorus et al. (2017) contend that the organization of locals, marketing of their products, provision of a lodging, food, and transportation system, as well as social media outreach partnerships and educating people about the benefits of ecotourism are essential components of the growth of

ecotourism. According to Kihima (2016), ecotourism is now accepted in underdeveloped nations because it is seen as a potential and actual tool for sustainable development. In this regard, Anup et al. (2021) hold the opinion that it is initially vital to comprehend ecotourism policies and their application in government advances in order to study the relationship between government practices and ecotourism strategies. These techniques are evaluated and regarded as public policies, not because of their effects but rather because of their importance to the advancement of society. Through the provision of advantages that result from conservation efforts, such as in-park resources/sharing gate admission profits, ecotourism endeavours, training, and support of income-generating enterprises started by communities, the park supports community livelihood.

During the reviewed year, the revenue-sharing program provided UGX135m (US\$53,465) from the 20% gate collection of the Rwenzori Mountains National Park to support income-generating projects in the local community. To date, more than 105 million (US\$41,584) has been collected but not yet given to the communities. The mountain's surrounding community tourism groups and associations, including RMS, the Roboni Community, and Turaco Tourism Community Group, have continued to be supported and invited to participate in conservation-related activities and tour guiding by park management.

Section 69(4) of the Wildlife Act of 2000 mandates the income and sharing program, which directs 20% of park entry fees to local district governments for the purpose of funding community projects "that contribute to the improvement of community welfare and poverty alleviation" (UWA, 2012a). Official records point to a variety of advantages, but the revenue-sharing program has come under fire. According to Sandbrook (2010), leakage costs Bwindi Impenetrable National Park almost three-quarters of its tourism revenue. The success of revenue-sharing programs is hampered by elements such as internal corruption in the revenue-collecting chain, divergent stakeholder priorities, insufficient funding, and a lack of transparency (Adams & Infield, 2003; Archibald & Naughton-Treves, 2001). Because of this, most communities around protected areas reap few advantages from the parks.

Teeroovengadam (2019) state that the more obvious motivation for launching community-based ecotourism is to maximize the positive effects of travel, specifically to raise the following: (a) more money for nearby businesses and other services; (b) a larger market for regional goods; (c) the

employment of regional labour and expertise; (d) a source of funding for the conservation, improvement, or upkeep of regional natural landmarks and cultural icons; and (e) an increased awareness among the public of the importance of the environment.

While local community perspectives and attitudes toward the tourism business have received substantial attention, scholars have mostly concentrated on visitors/tourists, their wants, movements, activities, and inspirations (Mensah, 2017; Teeroovengadum, 2019). On the other hand, according to According to Sharpley's (2006) thesis, there is currently insufficient data to support the claim that travellers who prioritize ecotourism above other forms of travel have attitudes and beliefs that distinguish eco-tourists from other traveller types. He went on to say that finding out their clearly expressed reasons for these preferences was vital. Furthermore, Weaver (1998) argues that the ecotourism idea is misunderstood in the community due to a lack of knowledge and experience.

The social exchange theory, tourist development cycles, and segmentation are some of the frameworks that have been proposed to explain the variations in locals' perceptions and attitudes toward tourism (Nugroho et al., 2018). Nugroho et al. (2018) state that the social exchange theory addresses how locals evaluate the anticipated costs and advantages. Second, as time goes on, local community attitudes are evaluated and impacted by the costs and advantages of the tourism development cycle through their recognition of the influence of supply in the sector. Thirdly, the segmentation process takes into account how local residents in the community evaluate costs and advantages. This is a result of the unevenness of local reactions and the effects of tourism (Hernandez et al., 1996). For instance, Lui and Var (1986) found that citizens of Hawaii consider tourism's overall effects on the community rather than its individual benefits.

Sangpikul (2017) characterized public or residential participation as a key component of the ecotourism idea; other academics contend that participation in planning is required to ensure that each local community member benefits in tourist locations. However, other unfavourable effects of ecotourism, including as crop damage and the relocating of locals and their culture into parks, have damaged destination towns. In 2001, Weaver. In addition, (Kihima, 2016) noted that any unfavourable effects of ecotourism that result in alterations in the host community will provide challenges for the industry's long-term ecological development. However, Baromey (2008) claimed

that it's necessary to look at locals' attitudes in tourist destinations, particularly in the early phases when the local community's support and participation are essential to the industry's success in developing tourism. As a result, the notion as a whole is abused. According to (Mugerwa, 2018), in addition to its own doors and staff, tourism must take into account the social and cultural effects on the host community as a whole if it is to live up to its moniker as the hospitality industry. Thus, in order to explore locals' perspectives of the effects of tourism, planning policies and considerations are essential for the effective development, marketing, and operation of current and future tourism programs and projects in the community (Mugerwa, 2018). Thus, the present study examined the community's perceptions of ecotourism.

Due to the involvement of local communities and the retention of a larger portion of revenue locally, community-based ecotourism rewards the nation both socially and economically. Ecotourists and ecotourism businesses are concerned about the environment when selling their products. This model fosters cooperation between public and private sectors and raises living standards by providing locals with more disposable income (Pornprasit & Rurkkhum, 2019). A key concept underlying the growth of community-based ecotourism is community empowerment, allowing for the appropriate division of long-term economic benefits among host communities to fund ongoing infrastructure improvements (Newsham et al., 2018). Additionally, ecotourism can emotionally empower locals by boosting self-esteem and pride in their natural and cultural heritage (Kihima, 2016). It may also strengthen social bonds within the community.

Community-based ecotourism fosters political empowerment by providing a platform for citizens to voice their opinions on local development matters (Ma et al., 2019). This approach aligns with the goals of sustainable tourism, offering both long-term economic growth and social empowerment for local communities (WWF-International, 2001). This is particularly significant for rural and isolated areas that often lack governmental attention and support. For these communities, ecotourism is essential for self-development as it allows individuals to utilize their own resources and skills to become more self-sufficient (Moswete et al., 2009).

Maximizing the advantages of community-based ecotourism is the most compelling reason for initiating such projects. This can be accomplished by boosting the market for regional products, such as vegetables, handicrafts, and value-added goods, while promoting local traditions. This

approach can lead to increased income for local businesses and services like healthcare, banking, and tourism-related activities, thus promoting the use of local labor and expertise (Koki, 2017). Moreover, ecotourism provides funding for the preservation and maintenance of cultural heritage sites and natural attractions (Ondicho, 2012). It raises community awareness of the significance of their indigenous environment and culture. The primary goal of community-based ecotourism is to support local economies and communities (Ondicho, 2012).

Nugroho et al. (2016) assert that tourism investment generates employment opportunities, while Sitorus et al. (2017) emphasize that organizing locals, marketing their products, and providing lodging and food are essential components of ecotourism development. Kihima (2016) notes that ecotourism is increasingly recognized in underdeveloped nations as a potential tool for sustainable development. Understanding ecotourism policies and their implementation in government initiatives is vital for studying the relationship between government practices and ecotourism strategies (Anup et al., 2021). These strategies are considered public policies not only for their outcomes but also for their societal significance. Through conservation efforts, such as sharing park resources and gate admission profits, ecotourism initiatives support community livelihoods.

During the reviewed year, the revenue-sharing program provided UGX 135 million (US\$ 53,465) from the 20% gate collection of the Rwenzori Mountains National Park to support income-generating projects in the local community. To date, more than UGX 105 million (US\$ 41,584) has been collected but not yet distributed to the communities. Local tourism groups, including RMS, the Roboni Community, and the Turaco Tourism Community Group, have been supported and invited to participate in conservation-related activities and tour guiding by park management.

Section 69(4) of the Wildlife Act of 2000 mandates the income-sharing program, directing 20% of park entry fees to local district governments for funding community projects that contribute to improving community welfare and alleviating poverty (UWA, 2012a). While records indicate advantages, the revenue-sharing program has come under scrutiny. Sandbrook (2010) notes that leakage costs Bwindi Impenetrable National Park almost three-quarters of its tourism revenue. The success of these programs is hindered by factors such as internal corruption, divergent stakeholder priorities, insufficient funding, and a lack of transparency (Adams & Infield, 2003; Archibald &

Naughton-Treves, 2001). Consequently, many communities surrounding protected areas benefit little from tourism.

Teeroovengadam (2019) states that a primary motivation for launching community-based ecotourism is to enhance revenue for local businesses and services, expand the market for regional goods, utilize local labor, and fund the conservation and maintenance of natural and cultural landmarks. Furthermore, public awareness of environmental importance is significantly increased.

While considerable attention has been given to local community perspectives on tourism, researchers have primarily focused on visitors and their desires and motivations (Mensah, 2017; Teeroovengadam, 2019). Sharpley (2006) argues that there is insufficient data to support claims that ecotourists have distinct attitudes from other traveler types. He emphasizes the importance of identifying the reasons for their preferences. Additionally, Weaver (1998) contends that misunderstandings about ecotourism within communities arise from a lack of knowledge and experience.

Several frameworks have been proposed to explain variations in locals' perceptions and attitudes toward tourism, including social exchange theory and tourist development cycles (Nugroho et al., 2018). Social exchange theory examines how locals evaluate anticipated costs and benefits. Over time, local attitudes are influenced by the costs and benefits of the tourism development cycle through their awareness of supply effects in the sector. The segmentation process considers how residents evaluate these costs and benefits, influenced by the uneven effects of tourism (Hernandez et al., 1996). For example, Lui and Var (1986) found that residents of Hawaii consider tourism's overall effects on the community rather than its individual benefits.

Sangpikul (2017) describes community participation as a key component of ecotourism, while other researchers argue that planning participation is necessary to ensure all local community members benefit. However, ecotourism can also have negative effects, such as crop damage and the displacement of locals into parks, which can harm destination towns. Weaver (2001) and Kihima (2016) note that negative effects of ecotourism can present challenges for the industry's long-term sustainability. Baromey (2008) emphasizes the importance of considering local attitudes in tourist destinations, particularly in the early phases when community support and participation are crucial

for success. Mugerwa (2018) states that tourism must consider the social and cultural impacts on the host community as a whole. Thus, planning policies and considerations are essential for exploring local perspectives on the effects of tourism, ensuring effective development and marketing of current and future tourism programs and projects in the community. The present study examined the community's perceptions of ecotourism.

## **2.5 Literature gaps**

Whereas previous studies show the importance of community-based ecotourism towards socioeconomic and environmental benefits, the activities and services offered vary and the sites designated as ecotourism sites face tremendous challenges related to population pressure and climate change related effects the reason which reports from UWA, for instance, show a rise in wildlife crimes near protected areas like Queen Elizabeth National Park. In addition, there is need to continuously monitor the progress of such conservation interventions such that any anomalies arising may be averted in time which calls for further studies.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Introduction**

The study areas' background information, and the techniques used for data collection and analysis are presented in this section. Furthermore, the section provides specifics on the sample and research designs that were used in the study.

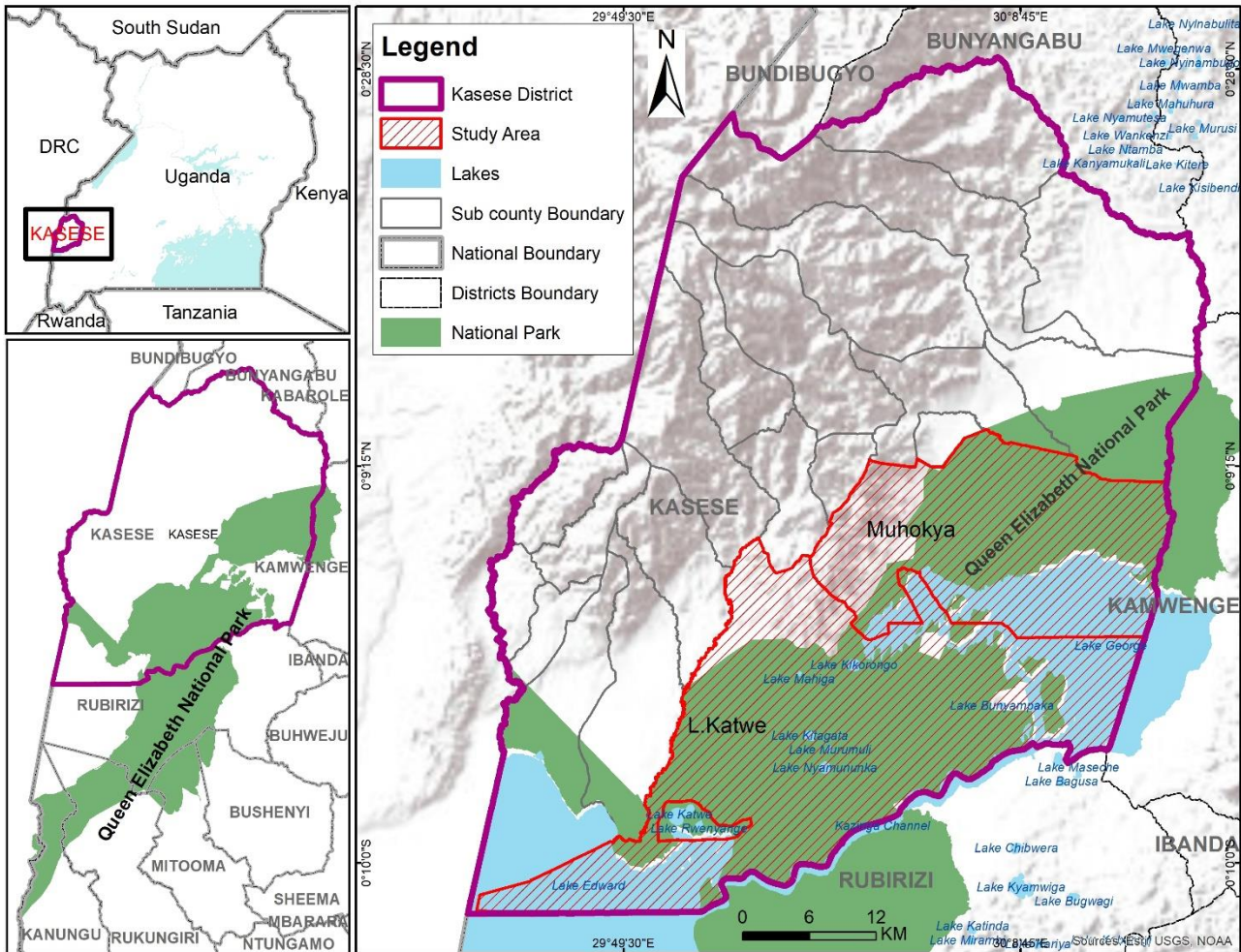
### **3.2 Description of the Study area**

This section presents information on the location (absolute and relative), geology, soil, geomorphology, climate, drainage, vegetation, population and ethnicity and economic activities that relate to conservation and community-based ecotourism.

#### **3.2.1 Location**

The study was focused on the Queen Elizabeth National Park communities within Kasese district, which is located in the Mount Rwenzori sub-region. In 1975, Kasese was made into a district. The district consists of 4 town councils and 20 rural sub-counties. Bundibugyo neighbours the district on the north, Kabarole borders it on the east, Kamwenge borders it on the northeast, Rubirizi borders it on the south, and the Democratic Republic of the Congo borders it on the west (Figure 3.1). Protected areas, marshes, and open waterways cover 64% of the total land area in the region. The Queen Elizabeth National Park, which is home to rare animal and bird species like the flamingos on Lake Munyanyange, the elephants, and the climbing lions you will scarcely see anywhere else at a destination, covers the lower portions of Mount Rwenzori. With a range of natural resources, including water, national parks, minerals, and mountains, Kasese continues to be the wealthiest region in the country. The mountain Rwenzori lies on the border with the Democratic Republic of the Congo in western Uganda covering three other districts of Bundibugyo, Ntoroko, and Kabarole. The Mountain's total land area is more than 100,000 acres. The mountains are located between longitudes 29° 47' West and 30° 11' East, and elevations 0° 06' South and 0° 46' North (Figure 1). For the benefit of the local, national, and global communities now and in the future, in order to maintain and safeguard them as world heritage sites, with water catchments, unique national beauty, and fragile ecosystems that support vulnerable, endemic, and uncommon

species of animals and plants, the upper and lower portions of the Mountain range are gazetted as National Parks (Mount Rwenzori, Semiliki valley, and Queen Elizabeth) (Kizza, 2014).



**Figure 3. 1: Location of the study area**

### 3.2.2 Geology and soil

The geology of the Kasese is part of that which forms the Rwenzori region where the study area. It is made up of Precambrian crystalline rocks including Gneisses, Amphibolite, Migmatites, and Granites (Survey, 2014). A significant Paleoproterozoic system of fold belts that encircles the Tanzania Craton includes the rocks of the Rwenzori in its northernmost portion. The Rwenzori Mountains and Kilembe region's raised block have a structural orientation of SW-NE (Survey,

2014). The soils in the study area typically range from clay loams and sand loams to laterites (Adelabu & Ramoelo, 2022).

### **3.2.3 Geomorphology**

The Kasese district area was under the effect of tectonic and denudation processes producing a varied landscape with mount Rwenzori standing out prominently. The Rwenzori horst, which covered 3000 km<sup>2</sup> of land, was tilted up in an ESE to WNW orientation 4 km above the nearby pen plain. According to Jagger et al. (2018), Margarita Peak on Mount Stanley is 5109 meters above sea level (m.a.s.l.). Lakes Albert and Edward are enclosed by fault basins on both sides of the Horst. This great height makes the mountain to experience permanent glacial cover. It is one of the most beautiful alpine areas in Africa for tourists, with a diversity of plants and animals on the ranges, glaciers, valleys, rivers, waterfalls, lakes, and beautiful peaks.

### **3.2.4 Climate**

The Western Uganda Climate Zone, which sees a bimodal rainfall pattern, governs the climate of the Kasese region. The first rains arrive briefly and fall between March and May and August and November. Wide temperature changes from relatively moderate temperatures at the plains to as low as zero at the peak, as well as annual rainfall ranging from 800mm to 1600mm while increasing to nearly 2000mm in the mountains (Karamage et al., 2017). Annual temperature ranges are between 23<sup>0</sup> and 30<sup>0</sup>. The altitudinal influence of the Mountain Rwenzori impacts on the rainfall and temperature patterns of the entire zone in generally making the temperatures cool in the highlands the rift valley floor too hot (National Environment Management Authority (NEMA), 2008).

### **3.2.5 Drainage**

The drainage network in Kasese districts comprises of rivers cascading the landscape from the top of Mount Rwenzori such as Lhibiriha, Nyamugasani, Nyamwamba, Mubuku, Sebwe, and Rwimia; rift valley lakes including Edward and George which are linked by the Kazinga channel. The rivers from the mountain feed Lakes Edward, George, and Albert (Shannon Doocy & Gorokhovich, 2018). Kasese district therefore hosts one of Uganda's biggest and most important water catchment

basins contributing significant waters to the Nile (National Environment Management Authority (NEMA), 2008). Numerous explosion crater lakes also denote the landscape on the lower slopes and some of which contain salt deposits including Lake Katwe and Lake Nyamynuka.

### **3.2.6 Vegetation**

The section of Kasese district that extends to Mount Rwenzori is characterised by vegetation stratified into five zones largely due to the altitudinal influence on vegetation growth factors such as soil and microclimate. At altitudes between 1000 and 2000 meters which covers the queen Elizabeth National Park areas, grassland and woodlands can be found. At altitudes between 2,000 and 3,000 meters, montane forest, bamboo, heath, and the afro-alpine zone can be found. The montane forest zone and the grassland zone converge at lower elevations (NEMA Atlas, 2009). The montane forest transitions into a bamboo forest region, where drier soils support heath flora made up of thickets of enormous heathers. On better soils, the vegetation has a tangled undergrowth that is scattered with a variety of tiny trees. Up to 4,000 meters, the bamboo zone and the Afro-alpine moorland zone converge. Above 3000 meters, you can find the most spectacular plants. The vast tree heathers that support aerial epiphytic gardens—some of which are exclusive to the Rwenzoris—are these and of remarkable botanical and aesthetic interest. 19% of the 278 woody plant taxa found in the afro-alpine zone are unique to the region, while 81% are indigenous to East Africa. The Afro-alpine zone is home to the most elegant giant lobelia (*lobelia wallastoni*) and groundsels (*Senecio admiralis*). These enormous species are distinctive to the Rwenzori (Sam & Moses, 2021).

### **3.2.7 Population and Ethnicity**

Kasese is one of the most populated districts in Uganda with a population size of 694,992 of which 339,455 are males and 355,537 are females. 574,011 of this population live in the rural areas where as 120,981 live in the urban centres (UBOS, 2014). The average house hold size is 5 and population density is 236 people per km<sup>2</sup>. (UBOS, 2014). The Rwenzori Mountains and the Western Rift Valley basin are where the majority of people live. A number of ethnic groups inhabit the Mount Rwenzori areas including the Nande, Konjo, Amba, and Toro. The other groups include

the Nilotics and Twa who are the indigenous group (Neuburger & Steinicke, 2012). The Rwenzururu Kingdom in the Rwenzori subregion encompasses the Kasese District.

### **3.2.8 Economic activities**

Kasese district is primarily an agricultural community, with over 80% of the population depending on subsistence farming for a living, according to Renno et al. (2015) and UBOS (2014) b. Major crops farmed include millet, maize, ground nuts, sorghum, beans, Irish potatoes, sweet potatoes, matooke, passion fruit, pear, tomato, cotton, mangoes, oranges, and pineapples, along with cattle, goats, pigs, and chickens. The primary markets for the agricultural produce are Kampala and other nearby cities. Another commercial activity carried out on the many lakes in the Kasese region is fishing. The main landing spots are Mahyoro and Kayinja on the beaches of Lake George. Kasese is a significant mining hub as a result of a multitude of mineral resources, including copper (Kilembe Mines), cobalt, cement (Hima), and limestone (Muhokya). At Katwe, there is a Salt Lake where salt is mined. These give local industrialists access to raw materials. Due to the district's extensive natural resource endowment, which includes geomorphic features, national parks, lakes, forest cover, and wild game, tourism is also a significant district-wide activity. The national parks of Queen Elizabeth, the Rwenzori Mountains, and Kibaale are all located in Kasese. In addition to Katwe, Kasenyi, and Hamukungu, there are bird sanctuaries on the Kazinga Channels with approximately 6000 different species. The rich natural and cultural resources of Kasese District provide a robust foundation for developing community-based ecotourism, which not only can enhance the conservation of the region's biodiversity and cultural heritage but can also promote sustainable livelihoods for the local communities.

### **3.3 Study Design**

For this study, a descriptive research design was used. Subsequently, the who, what, when, where, and how of assessing the feasibility of community-based ecotourism as a strategy for sustainable development in the hilly Rwenzori regions were addressed. Descriptive research is typically done to learn more about a phenomenon's current state and to describe "what exists" in terms of its characteristics or circumstances (Neil J. Salkind and Kristin Rasmussen, 2007). The descriptive research design allows for the utilization of both qualitative and quantitative data.

### **3.4 Study Population**

The homesteads of the nearby communities in Kasese district including Muhokya and Katwe Sub counties, as well as park personnel, including tour guides, park managers, and tourists, will make up the study's target group. These respondents are important players in the tourist sector; thus, it was assumed that they were educated about this field of study and were able to provide the information needed for an analysis of the research problem. The two sub counties fall under Busongora south constituency which houses 4065 households. Therefore, this was the primary study population targeted for this study. The study population from all the categories of targeted respondents was 4097 people.

### **3.5 Sample Size and Sampling Methods**

#### **3.5.1 Sample Size**

Probabilistic sampling was utilized to choose the largest participant group to reflect the complete population because the research population was too large. These will be determined using a proportionate sampling technique where a proportion of the total households in the two sub counties of Muhokya and Lake Katwe was determined using Krejcie and Morgan (1970) proportionate sampling procedures. Krejcie and Morgan (1970) provides a corresponding sample size to known population size. From the population 4065 households a proportionate sample size was 354. Samples from other categories of respondents include, 5 Uganda Tourism board members, 8 game rangers, 8 local council chairpersons in the communities practicing community-based ecotourism, 10 tour guides, ten vacationers. Ten tourists, chosen on a particular day for two ecotourism sites close to Queen Elizabeth National Park, provided their ideas, while local authorities, including the chairs of local councils, shared their thoughts. These are sufficient, according to Roscoe's thumb rule.

**Table 3. 1: Sampling Frame**

Category	Population (N)	Sample (S)	Sampling Technique
Officers/Uganda Tourism Board	5	3	Purposive sampling
Community - Households	4056	333	Proportionate sampling
Tour guides	10	5	Purposive random sampling
Game rangers	8	3	Purposive random sampling
LCI Chairpersons	8	5	Purposive sampling
Tourists	10	5	Convenience sampling
<b>Total</b>	<b>4097</b>	<b>354</b>	

*From the targeted households (353), 333 participated in the study giving a questionnaire return rate of 84% were returned. 21 of the key informants (41) were also realised in the study.*

### 3.6.2 Sampling Methods

The main target respondent's category was determined using simple random sampling; having determined the required sample. The procedure involved obtaining lists of households in villages close to implementation sites of CBET, and randomly drawing out households with unique identifiers to realise the sample (333). Simple random sampling provides an opportunity for each member in the population being selected and thus reducing bias in selection process. The second category comprised of key informants including Uganda Tourism Board members, tour guides, game rangers and LCI Chairpersons. These were selected using purposive sampling. The cases considered here are believed to possess the required information on CBET (Chandrasekaran et al., 2015). Given their wide range and varying timing of site visits, the visitors were chosen using the convenience sample method.

### **3.6 Data Collection Methods**

The study mostly relied on primary data, while historical portions of the study made use secondary data sources. Primary target respondents (communities) provided primary data involving use of a survey questionnaire administered through face-to-face interactions. Further, key informant interviews were conducted with personal from Uganda Tourism Board members, tour guides, game rangers, tourists, and LCI Chairpersons using an interview guide. These methods allowed for collection of first-hand information through direct interactions with the targeted respondents and thus an opportunity to gather a wealth of it. Historic document analysis of previous tourism-related reports, visitor and community inquiry records, and published literature on ecotourism and tourism development from annual reports, journals, published and unpublished articles, and online sources were used to collect secondary data. When a network of data archives is readily available, where survey data files are gathered and dispersed, it is very adaptable and the best to use.

### **3.7 Data Collection Instruments**

A structured survey questionnaire (Appendix I) and an interview guide (Appendix II) were used as the data collection instruments. The survey questionnaire was utilized to gather data from households in the communities that are taking part in community-based ecotourism in the study area. The questions on this tool addressed the many facets of community-based ecotourism potentials, the level of community participation, and the socioeconomic and environmental contribution of CBET. A five-point Likert scale served as the anchor for the survey items, some of which included numerous response options. The questions in the first sections of the questionnaire were intended to collect respondents' biodata including gender, household position, age, education level, length of stay in the area, main source of livelihood and marital status. These demographic characteristics either influence or are influenced by activities of CBET.

Qualitative data was gathered from key informants, including top managers, game ranges, and tourism board managers, using an interview guide as an instrument. The instrument guided interactions during in-person interviews. Interview guides are a helpful tool since they allow for the collection of detailed information about the subject to meet specific research objectives. Interviews also give the responder the opportunity to explain any questions on the questionnaire that are

unclear. Due to the face-to-face encounter and the wide range of perspectives it presents, this data was triangulated with what is obtained through structured questionnaire survey.

### **3.8 Validity and Reliability of the instruments**

#### **3.8.1 Validity**

The validity of the questionnaire was assessed using factor analysis. Validity describes how well-suited an instrument is. It refers to how accurately data analysis results reflect the phenomenon that is being researched. According to Oddho (2002), a proper measurement tool should measure the object being measured precisely. An instrument's applicability, clarity, and relevance for the final study have to be evaluated in a validity test. To gather the necessary data and enhance the instruments' quality, ambiguous and subpar items we amended.

#### **3.8.2 Reliability**

The Statistical Package for Social Sciences (SPSS) application was used to enter the pretest data and use Cronbach's Alpha to assess the instrument reliability. The reliability alpha coefficient value realised was 0.89 greater than 0.7 (70%), thus the tools were adopted and used in data collection. This means that if  $> 0.7$ , the questionnaire items regarded as trustworthy.

### **3.9 Data Analysis**

To achieve the needed quality, accuracy, and completeness, data from the field were compiled, coded, cleaned and prepared for statistical and non-statistical analyses. The Statistical Package for Social Sciences (SPSS) version 23.02 was used for data management and computational analyses. This software provides capabilities for analysing multivariable socio-economic data of up to thousands of variables and cases. At preliminary levels, descriptive statistics were computed from the counts of responses on each questionnaire items. This involved use of multiple response analysis for variables that gathered multiple responses and computation of Pearson's Chi-square test of association to determine whether CBET activities and services and contributions were the same for all the communities around QENP.

Frequencies (Number of cases), percent of cases and proportion percentages were derived from the multiple response data at descriptive statistics analysis level. At inferential statistical analysis level, Ch-square test was conducted. A chi-square statistic is calculated by tabulating a variable into groups using the Chi-Square Test procedure (Ott et al., n.d.). Person's Chi-Square statistic is used to assess the association between categorical variables. It measures how much the observed frequencies differ from the expected frequencies under the null hypothesis. Higher values indicate stronger deviation from expected values. Other related statistics such as Cramer's V is usually computed to measure association strength between categorical variables. Cramer's V ranges from 0 (indicating no association) to 1 (indicating a strong association).

The Chi-square test also returns asymptotic significance (2 or two sided) which indicates Chi-square test p-value. The asymptotic significance indicates the probability of observing the given association if there were no true association among the variables. Cross tabulations were conducted between CBET activities, community perceptions, and contributions (independent variables) and the sites (two selected sub counties as dependent variables) to find out spatial associations/ variations. For data measured on a continuous scale (Linkert-scale), non-parametric test legacy tables analysis was applied. This compared the expected ( $n=333/5$  levels (Linkert scale) = 66) against observed frequency (actual frequency counts). The assumption was that expected and observed frequencies would be equal which would imply the same level of contribution of CBET in all QENP communities. All statistical associations between variables were tested at 0.05 level and 95% confidence interval. A small p-value (usually less than 0.05) indicates evidence that refutes the null hypothesis that there is no correlation.

### **3.10 Ethical considerations**

The study involved gathering information from people in and around protected areas. Therefore, a number of ethical issues arose. Permission to undertake field data collection from humans and in protected areas was sought from the relevant jurisdictions. The authorities in Muhokya and Lake Katwe Sub Counties obtained an introduction letter from Kyambogo University's Directorate of Research and Graduate Training, seeking permission to undertake the collection of data. Participation in interviews and questionnaire data collection was mainly voluntary and after informed consent. The opinions and data obtained have been treated with utmost anonymity and

confidentiality to protect the participants identity. For the information collected from existing documents, the sources have been dully acknowledged using citations and full list referencing.

### **3.11 Study Limitations**

The Kasese where queen Elizabeth National Park is located, is part of the Rwenzori Sub-Region conflicts zone; some political and others cultural related some quite a long time period therefore accessing respondents was a hard task during data collection. Kasese is characteristically diverse in terms of ethnicity and thus language barrier is another was problem. However, field research assistants were recruited from the two sub counties of Muhokya and Lake Katwe and trained on data collection from their respective areas which reduced on cases of suspicion over the need for the data by the residents but also overcoming the language barrier challenge. The assistants were those familiar with the native languages spoken in the study area.

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

#### 4.1 Introduction

This section covers a presentation, and interpretation of the results from the study statistical analyses in the order of study objectives. The results from the data obtained by different methods are handled concurrently so as to keep track of the research questions and objectives but after profiling the demographic characteristics of the respondents since the study was purely socioeconomic. The respondents were drawn from communities surrounding Queen Elizabeth National Park that is in the two sub counties of Muhokya and Lake Katwe.

#### 4.2 Demographic Characteristics of the Respondents

Section A of the survey tool gathered demographic characteristics of the household representative that participated in the study including gender, age, marital status, education level, and livelihood sources. These are in one way related to the study variables such as participation in CBET. From the two sub-counties surveyed for household data collection, 46% of the respondents were from Muhokya and 54% (199) were from Lake Katwe Sub County. The demographic characteristics of these are shown in Table 4.1. The results show that, 35% and the majority of the respondents were at the household position of father while those at the position of mother made up 24%, followed by sons (12%), grandchildren (7.8%), grandfather (5.1%) and the least represented household position was that of grandmother (3.9%).

The majority of the respondents were males (57.4%). The average age of the respondents was  $35 \pm 14$  which would make the respondents mid-way between the youth and adults from the lower and upper limits respectively. In terms of marital status, the majority of the respondents were married (49.5%) followed by those who were single (24.9%), separated (9.9%), divorced (7.2%), widowed (5.1%) while the least represented was those cohabiting. In terms of level of education, majority (25%) of the participants had not attained formal education and equivalent had attained only up to primary level training. These were followed by those who has attained Ordinary Level (23.7%), Advanced Level (13.5%), tertiary level and graduate level (5.1% each). The smallest

proportion (0.9%) of the respondents had attained up to post-graduate level of education. Average household size was 5 deviating between  $\pm 14$ . The respondents had stayed longer than 27 years on averages in the areas of study. The respondents were majorly (19.8%) involved in restaurant/hotel business and tour guiding (15.9%). The least engaged in livelihood activities were charcoal burning (2.4%), artwork selling (2.7%), and property income (4.5%).

**Table 4. 1: Social-economic characteristics of the respondents (N =333)**

Variable	Description	Statistics	Variable	Description	Statistics
<b>Household representative</b>	Father	119(35.7%)	<b>Household size</b>	Mean	5
	Mother	80(24%)		Std. Deviation	$\pm 14$
	Son	40(12%)		Minimum	1
	Daughter	38(11.4%)		Maximum	30
	Grandchild	26(7.8%)	<b>Years of stay</b>	Mean	27
Grandfather	17(5.1%)	Std. Deviation		$\pm 12$	
Grandmother	13(3.9%)	Minimum		0	
<b>Gender</b>	Male	191(57.4%)	<b>Source of livelihood</b>	Maximum	77
	Female	142(42.6%)		Tour guiding	53(15.9%)
<b>Age</b>	Mean	35	Restaurant/hotel business	66(19.8%)	
	Std. Deviation	$\pm 14$	Causal labouring	26(7.8%)	
	Minimum	17	Charcoal burning	8(2.4%)	
	Maximum	95	Crop farming	24(7.2%)	
<b>Marital status</b>	Cohabiting	11(3.3%)	Art work selling	9(2.7%)	
	Divorced	24(7.2%)	Conservation payments	19(16.6)	
	Married	165(49.5%)	Fishing	52(15.6)	
	Single	83(24.9%)	Formal employment	21(6.3)	
	Separated	33(9.9%)	Livestock farming	21(6.3)	
	Widowed	17(5.1)	Property income e.g., rentals	15(4.5%)	
<b>Education level</b>	No formal education	86(25.8%)	Transport services	19(5.7%)	
	Primary	86(25.8%)	<b>Education level</b>	Vocational training	17(5.1%)
	Ordinary (O) level	79(23.7%)		Graduate	17(5.1%)
	Advanced (A) level	45(13.5%)		Post graduate	3(9 %)

### **4.3 Establishing the Community-Based Ecotourism Activities and Services in Queen Elizabeth National Park Areas in Kasese District**

The community-based ecotourism in this study covered fauna and flora conservation practices, activities and services provided to the tourists in the communities around Queen Elizabeth National Park. The results are covered under corresponding subsections below.

#### **4.3.1 Flora and Fauna Conservation Activities Around Queen Elizabeth National Park Areas in Kasese District**

The table (4.2) provides data on various conservation activities in two locations, Muhokya and Lake Katwe, along with their overall totals and the results of Chi-Square tests to determine the statistical significance of differences between the two locations. The results in this table show that generally (based on overall totals), Queen Elizabeth National Park management mainly undertakes buffer Zone Management (91.9%), ant-poaching patrols (87.1%), fire Management (86.5%), wildlife monitoring (85.3%), invasive species control (84.4%), law enforcement (83.5%), habitat restoration (82.2%) and community engagements (77.2%). The other important conservation activities ensured are fence maintenance, community engagement, sustainable tourism management, educational programs and research and scientific studies. The least applied flora and fauna conservation measures include long-term planning (24.3%), partnerships with researchers (27.6%) and collaboration with NGOs (36.6%).

In relation to the two locations undertaking CBET around QENP, the results show that some activities undertaken (anti-poaching patrols, buffer zone management, wildlife monitoring, fire management, fence maintenance, public advocacy, law enforcement, and invasive species control) were not significantly different while others were significantly different between Lake Katwe and Muhokya Sub counties. The measures that show significant differences between Muhokya and Lake Katwe, indicated by p-values less than 0.05 include sustainable tourism management, research and scientific studies, water resource management, collaboration with NGOs, long-term planning, and partnerships with researchers. For these measures, the percentages of respondents participating in these conservation efforts varied significantly between the two locations. The Cramer's V values,

where provided and meaningful, indicate varying strengths of association, with higher values suggesting a stronger association between the locations and the conservation measures.

These results show Queen Elizabeth National Park management has put a number of measures to conserve wildlife which are handled in almost equal proportions. However, ignoring long-term planning and limited partnerships and collaborations brings about sustainability questions in the measures implemented. The significant differences in the measures between the two sub counties also indicates that these measures are selectively applied on specific sites and not randomly across the Queen Elizabeth National Park community's areas.

**Table 4. 2: Wildlife Conservation Activities around Queen Elizabeth National Park Communities**

		Muhokya		Lake Katwe		Overall		Chi Square Statistics		
	<b>Flora and Fauna conservation</b>	N	%	N	%	N	%	Pearson Chi-Square	P-value	Cramer's V
1	Wildlife Monitoring	163	84.9	121	85.8	284	85.3	0.055	.815	.815
2	Habitat Restoration	168	87.5	106	75.2	274	82.3	8.468	.159	.004
3	Buffer Zone Management	177	92.2	129	91.5	306	91.9	.053	.013	.818
4	Anti-Poaching Patrols	167	87	123	87.2	290	87.1	.005	.004	.945
5	Community Engagement	159	82.8	98	69.5	257	77.2	8.175	.157	.004
6	Educational Programs	148	77.1	84	59.6	232	69.7	11.794	.188	.001
7	Sustainable Tourism Management	151	78.6	82	58.2	233	70.0	16.244	.221	.000
8	Research and Scientific Studies	125	65.1	49	34.8	174	52.3	30.020	.300	.000
9	Fence Maintenance	152	79.2	115	81.6	267	80.2	.293	.030	.588
10	Fire Management	165	85.9	123	87.2	288	86.5	.117	.019	.732
11	Water Resource Management	103	53.6	51	36.2	154	46.2	9.987	.173	.002
12	Invasive Species Control	168	87.5	113	80.1	281	84.4	3.340	.100	.068
13	Collaboration with NGOs	93	48.4	29	20.6	122	36.6	27.202	.286	.000
14	Law Enforcement	157	81.8	121	85.8	278	83.5	.965	.054	.326
15	Public Advocacy	92	47.9	60	42.6	152	45.6	.943	.053	.332
16	Long-term Planning	65	33.9	16	11.3	81	24.3	22.372	.259	.000
17	Partnerships with Researchers	76	39.6	16	11.3	92	27.6	32.416	.312	.000

(N =333)

On the question of what has been done to conserve fauna and flora around the queen Elizabeth National Park, a key informant stated that,

*“We are following the Wildlife act put up by the Uganda wild life authority, we do community sensitisation, conduct research, sensitise the local communities to understand the need for conservation. We created the Uganda Wildlife Education Centre (UWEC) within the community that handles training and skilling of the labour we need in the conservation” (KI11/01/2024: 10:15am).*

Similarly, a key informant pointed out demarcating he park boundaries, enforcement of restrictions, park monitoring, setting up of village protections units, and fencing off of water collecting points to avoid crocodile attacks on the lake as some other flora and fauna conservation measures in Queen Elizabeth National Park (KI11/01/2024: 12:30pm). Another key informant added they undertake deployment of game ranges and conduct patrols in the conservation areas to avert illegal activities but also ensure no cases of human-wildlife conflicts are averted (KIW12/01/2024: 09:55am). The other reported measures include control of fires, creation of a buffer zone between the community and the park, conducting scientific research on flora and fauna species, collaboration with NGOs on vegetation restoration, control of insecure animal species and community engagements through workshops and community ecotourism projects. The results here imply that there are existing efforts to conserve and protect not only flora and fauna in the queen Elizabeth conservation area but also protect the communities from wildlife-human conflicts through multiple approaches that are recognisable by the versed majority of the stakeholders.

#### **4.3.2 Community-Based Ecotourism Activities around Queen Elizabeth National Park Areas in Kasese District**

From the questionnaire survey data and multiple response analysis, a number of community-based ecosystem activities and services were revealed to be taking place around Queen Elizabeth National Park in Kasese (Table 4.3). The first part of the table (4.3) presents results on various community-based ecotourism activities in Muhokya Subcounty and Lake Katwe Subcounty, showing the number of respondents, the percentage for each activity, the total percentage, and the results of Chi-

Square tests to determine the statistical significance of differences between the two sub counties. Overall, that the most dominant community-based ecotourism activity was cultural experience (83.5%) followed by cultural performances (71.2%), and Community-managed trails (51.7%). The less dominant CBET activities include local homestay crafts (3.9%), local food tours (13.8%), community-led guided tours (20.1%), artisan markets (22.5%), language and cultural exchange programs (28.8%) and workshops and demonstrations (39.3%). In relation to the two sub counties studied, the Table reveals that there was no statistically significant difference in CBET activities including cultural experiences, language and cultural exchange programs, community-managed trails, workshops and demonstrations, cultural performances, and local food tours between the two sub counties. This means that these activities are not limited to specific CBET sites but can be

accessed uniformly from all the sites around QENP. However, the results show a significant difference in activities including community-led guided tours, artisan markets, and local homestay crafts between Muhokya and Lake Katwe, indicating variations in the prevalence of these activities in the two locations. The percentages of respondents participating in these activities differed remarkably between the sub counties, with Lake Katwe having higher engagement in artisan markets and local homestay crafts, while community-led guided tours are more common in Lake Katwe than in Muhokya. These results show a statistically significant association between these services and specific CBET sites (Muhokya and Lake Katwe sub counties) meaning that community-based ecotourism sites around QENP are not uniformly and fully developed to offer engage in a diversity of activities.

**Table 4. 3: Community-Based Ecotourism Activities Around Queen Elizabeth National Park Communities (N =333)**

	The community-based ecotourism activities taking place in the area.	Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Square Statistics		
		N	%	N	%	N	%	Pearson Chi-Square	P-value	Cramer's V
1	Cultural Experiences	116	82.3	162	84.4	278	83.5	.052	.028	.609
2	Language and Cultural Exchange Programs	36	25.5	60	31.3	96	28.8	1.296	.062	.255
3	Community-Managed Trails	74	52.5	98	51.0	172	51.7	.068	.014	.795
4	Workshops and Demonstrations	53	37.6	78	40.6	131	39.3	314	.031	.575
5	Cultural Performances	98	69.5	139	72.4	237	71.2	.331	.032	.565
6	Community-Led Guided Tours	18	12.8	49	25.5	67	20.1	8.229	.157	.004
7	Local Food Tours	20	14.2	26	13.5	46	13.8	.028	.009	.867
8	Artisan Markets	13	9.20	62	32.3	75	22.5	24.8	.273	.000
9	Local Homestay crafts	1	0.70	91	47.4	13	3.9	6.653	.141	.010

### 4.3.3 Community-Based Ecotourism Services Around Queen Elizabeth National Park Areas in Kasese District

Table 4.4 presents data on various community-based ecotourism services in Muhokya Subcounty and Lake Katwe Subcounty, showing the number of respondents, the percentage for each service, the total percentage, and the results of Chi-Square tests to determine the statistical significance of differences between the two sub counties. Overall, the results show that the most prominent CBET service offered across the QENP areas is community conservation (70.3%) projects followed community-operated lodges (57.4%), community-managed tours (54.7%) and community conservation fees (54.1%). The least offered services are cultural interpretation centres (31.8%) and home stay services (47.1%).

In relation to spatial variability, the results show that the provision of CBET services such as community transport services, community conservation fees, homestays, and community-managed

tours was not significantly different between the two sub counties. However, there was a statistically significant difference between Muhokya and lake Katwe sub counties in the provision of services in terms of cultural interpretation centres, community-operated lodges, and community conservation projects. This indicates variations in the prevalence of these services in the two locations. For these services, the percentages of respondents participating differ notably between the sub counties, with Lake Katwe having higher engagement in cultural interpretation centres and community-operated lodges, while Muhokya shows higher engagement in community conservation projects.

**Table 4. 4: Community-based Ecotourism Services Around Queen Elizabeth National Park Communities (N =333)**

		Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Square Statistics		
	<b>The community-based ecotourism services provided in the area.</b>	N	%	N	%	N	%	Pears on Chi-Square	P-value	Cramer's V
1	Community Transport Services	93	66	136	70.8	229	68.8	.900	.052	.900
2	Community Conservation Fees	73	51.8	107	55.7	180	54.1	.474	.512	.039
3	Cultural Interpretation Centres	32	22.7	74	38.5	106	31.8	9.408	.168	.002
4	Community-Operated Lodges	69	48.9	122	63.5	191	57.4	7.090	.146	.008
5	Homestays	66	46.8	12	6.30	157	47.1	.011	.006	.916
6	Community-Managed Tours	77	54.6	105	54.7	182	54.7	.000	.001	.989
7	Community Conservation Projects	110	78	124	64.6	234	70.3	7.020	.145	.008

The response from the from interviews with game rangers, local leaders, tourists and tour guides on the question, “What are some of the community-based ecotourism activities taking places in and around queen Elizabeth National Park” were diverse but related to what the household respondents provided. One of the managers stated that, nature walks involving bird watching, forest walks in for example Kyambura gorge forest are undertaken in the area specifically in Lake Katwe Subcounty. Other activities reported included, hand craft demonstrations – teaching the tourists, music dance and drama, budget accommodation, boat tours and boat rides and traditional way of salt mining (KI11/01/2024: 10:15am).

The other reported ecotourism activities by other key informants were, community guided tours, mats and hand craft made by organized shops e.g., Kanyiginya and Rwenzori Tours, spot fishing using hooks, game viewing, community conservation meetings, and bird watching. These results reflect that the tourism activities undertaken in the study area are largely dependent on nature and the communities thus qualifying to be referred to as community-based ecotourism.

#### **4.4 Assessing the Level of Community Participation in Community-Based Ecotourism Around Queen Elizabeth National Park Areas in Kasese District**

Table 4.5 shows results on participation in various community-based ecotourism activities and services in Muhokya Subcounty and Lake Katwe Subcounty, with the number of respondents, the percentage for each activity, the total percentage, and the results of Chi-Square tests to determine the statistical significance of differences between the two sub counties. Overall, the findings indicate that, the communities in QENP majorly participated in revenue sharing and benefit distribution (83.2%) followed by conflict resolution activities (69.4%). There was a noted generally low participation in CBET activities including community-based conservation fund, needs assessment, monitoring and evaluation, community-based regulations, tourism planning committees and training and capacity building.

In relation to the two study locations, the results show a significant difference in the activities that the locals participated in including training and capacity building, and monitoring and evaluation between Muhokya and lake Katwe sub counties, indicating variations in the level of participation in these activities between the sub counties. specifically, Lake Katwe has higher participation in both

activities compared to Muhokya. However, participation in Tourism Planning Committees, Needs Assessment, Conflict Resolution, Community-Based Conservation Fund, Community-Based Regulations, and Revenue Sharing and Benefit Distribution was not significantly different between the sub counties, indicating similar levels of participation in these activities across both locations.

Table 4.5 also presents data on participation in various community-based ecotourism services in Muhokya Subcounty and Lake Katwe Subcounty, showing the number of respondents, the percentage for each service, the total percentage, and the results of Chi-Square tests to determine the statistical significance of differences between the two sub counties.

Overall, the results show that locals mostly participated in communities' conservation projects' (83.8%) service followed by participation in Community meetings and workshops (77.8%), cultural preservation (76.9%), local marketing and production (68.8%), environment education programs (65.2%), craft and souvenir production (57.1%). The local communities were less involved in providing services including community local guide programs, home stay programs community managed trails and facilities.

In relation to the two study sites, the results reveal significant differences in services including community meetings and workshops shows a significant difference between Muhokya and Lake Katwe, with a higher participation rate in Muhokya. However, no significant differences emerged in services including local guide programs, home stay programs, craft and souvenir production, environment education pro68.8grams, conservation projects, cultural preservation, community managed trails and facilities, and local marketing and production between the sub counties, indicating similar levels of participation in these activities across both locations.

**Table 4. 5: Community-Based Ecotourism Activities and Services that Communities Participate in Around Queen Elizabeth National Park (N=333)**

		Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Square Statistics		
<b>The community-based ecotourism services households participate in.</b>		N	%	N	%	N	%	Pearson Chi-Square	P-value	Cramer's V
1	Community meetings and workshops	124	87.9	135	70.3	259	77.8	14.621	.210	.000
2	Local Guide Programs	67	47.5	96	50	163	48.9	.200	.025	.654
3	Home Stay Programs	61	43.3	66	34.4	127	38.1	2.722	.090	.099
4	Craft and Souvenir Production	75	53.2	115	59.9	190	57.1	1.491	.067	.222
5	Environment Education Programs	93	66.0	124	64.6	217	65.2	.068	.014	.795
6	Conservation Projects	120	85.1	159	82.8	279	83.8	.315	.031	.575
7	Cultural Preservation	102	72.3	154	80.2	256	76.9	2.831	.092	.092
8	Community Managed Trails and Facilities	50	35.5	56	29.2	106	31.8	1.484	.067	.223
9	Local Marketing and Production	97	68.8	132	68.8	229	68.8	.000	.000	.993
		Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Square Statistics		
<b>The community-based ecotourism activities households participate in.</b>		N	%	N	%	N	%	Pearson Chi-Square	P-value	Cramer's V
1	Tourism Planning Committees	50	35.5	86	44.8	136	40.8	2.929	.094	.087
2	Needs Assessment	26	18.4	43	22.4	69	20.7	.775	.048	.379
3	Training and Capacity Building	50	35.5	92	47.9	142	42.6	5.157	.124	.023
4	Monitoring and Evaluation	19	13.5	56	29.2	75	22.5	11.471	.186	.001
5	Conflict Resolution	105	74.5	126	65.6	231	69.4	2.992	.095	.084
6	Community Based Conservation Fund	21	14.9	36	18.8	57	17.1	.852	.051	.356
7	Community Based Regulations	36	25.5	44	22.9	80	24.0	.305	.030	.581
8	Revenue Sharing and Benefit Distribution	117	83.0	160	83.3	277	83.2	.007	.005	.932
9	Tourism Planning Committees	50	35.5	86	44.8	136	40.8	2.929	.094	.087

The key informant interview results on community participation indicate that the key informants perceive community participation in CBET differently. During an interview session, a key informant (Field programs officer from the Uganda Tourism Board) stated that,

*“It is more of community involvement – the activities are owned by the community to plough back the resources, 90% it is community e.g. girls cooking, cleaning, UWIA build the capacity of the community on interpretative guiding, communities provide budget accommodation and cheap facilities e.g. for 20.000; there is Boda boda tour taking; bee keeping tours and how the community control the animals and harvesting of the honey; boat rides; community came up with boats for use on the crater lakes with in the park, Crafts involve a lot of people because family members in most cases benefit; interpretive guiding e.g. Katwe teaches /trains them how to handle he tourists; How to interest the visitors; there are wide training modules introduced to the community so as they are able to operate an enterprise e.g. marketing, communication, conservation etc“.* (KIW13/01/2024: 02:34 pm). The results show that there is a number of CBET that the communities around Queen Elizabeth National Park take but in thus implying high level of community participation.

#### **4.5 Examining the Socio-Economic and Environmental Contribution of Community-Based Ecotourism Around Queen Elizabeth National Park Areas in Kasese District**

This section is subdivided into three subsections covering the socio-economic and environmental contributions and challenges of community-based ecotourism around the queen Elizabeth National Park areas.

##### **4.5.1 The Socio-Economic Contribution of Community-Based Ecotourism Around Queen Elizabeth National Park Areas in Kasese District**

The fourth objective of the study investigated the socio-economic contribution of community-based ecotourism around Queen Elizabeth National Park. The table (4.6) presents respondents' levels of agreement with various contributions of community-based ecotourism (CBET) in their areas. The responses are categorized into "Strongly Agree," "Agree," "Neutral," "Disagree," and "Strongly Disagree." Chi-Square statistics are used to evaluate the significance of deviations from expected values. The results (Table 4.6) show that, the observed frequencies of respondents who had two

levels of agreement (i.e., Agreed and Strongly Agree) was higher than the observed frequencies for respondents who disagreed and those who strongly disagreed with the stated social-economic contributions of CBET in terms of income generation, diversified livelihoods, empowerment, education, and skill development, infrastructure development, cultural preservation, increased local pride, and revenue sharing. The observed frequencies for the contributions that the respondents agreed with were higher than the expected frequencies (66.6) giving positive residuals except for income generation, cultural preservation, increased local pride, and revenue sharing (at the fourth level of agreement - Agree). However, the respondents disagreed with the fact that CBET contributes to poverty alleviation at two levels (Disagree and Strongly Disagree). The results imply that the majority of the respondents agreed with the fact that community-based ecotourism contributed positively to the social economic development of the communities mainly through income generation, diversification of livelihoods, empowerment, education and skills development, infrastructure development, cultural preservation, increased local pride, and revenue sharing. CBET however, did not substantially contribute to poverty alleviation. The Chi-Square test of association between these contributions and sites of CBET (Table 4.6) show that there were statistically significant ( $P < 0.05$ ) association between the contributions of CBET (income generation, diversified livelihoods, empowerment, education, and skill development, infrastructure development, cultural preservation, increased local pride, and revenue sharing) and specific sites around Queen Elizabeth National Park.

The findings show that there is overwhelming "Strong Agreement" for most contributions of CBET, particularly for income generation, cultural preservation, increased local pride, and revenue sharing. Further, moderate support is seen for poverty alleviation and diversified livelihoods, with responses more evenly distributed and less pronounced deviations. Moreover, the contributions of empowerment, education and skill development, and infrastructure development also received strong agreement, though to a slightly lesser extent compared to income generation and cultural preservation. Overall, the results indicate strong positive perceptions of the contributions of community-based ecotourism in the surveyed areas.

**Table 4. 6: Perceived Social-economic contributions of CBET around Queen Elizabeth National Park Communities**

you agree or disagree with the following contributions of community-based ecotourism in your areas?		Strongly Agree			Agree			Neutral			Disagree			Strongly Disagree			Chi-Square		
		Observed(N)	Expected (N)	Residual	Observed(N)	Expected (N)	Residual	Observed(N)	Expected (N)	Residual	Observed(N)	Expected (N)	Residual	Observed(N)	Expected (N)	Residual	$\chi^2$	df	As. sig
1	Income Generation	246	66.6	179.4	47	66.6	-19.6	20	66.6	-46.6	11	66.6	-55.6	9	66.6	-57.6	617.856	4	.000
2	Poverty Alleviation	127	66.6	60.4	76	66.6	9.4	43	66.6	-23.6	53	66.6	-13.6	34	66.6	-32.6	83.201	4	.168
3	Diversified Livelihoods	69	66.6	2.4	70	66.6	3.4	81	66.6	14.4	57	66.6	-9.6	56	66.6	-10.6	6.444	4	.000
4	Empowerment	163	66.6	96.4	57	66.6	-9.6	37	66.6	-29.6	44	66.6	-22.6	32	66.6	-34.6	179.718	4	.000
5	Education and Skill Development	166	66.6	99.4	71	66.6	4.4	25	66.6	-41.6	29	66.6	-37.6	42	66.6	-24.6	204.943	4	.000
6	Infrastructure Development	168	66.6	101.4	73	66.6	6.4	17	66.6	-49.6	18	66.6	-48.6	57	66.6	-9.6	228.787	4	.000
7	Cultural Preservation	241	66.6	174.4	40	66.6	-26.6	20	66.6	-46.6	15	66.6	-51.6	17	66.6	-49.6	576.835	4	.000
8	Increased Local Pride	248	66.6	181.4	34	66.6	-32.6	12	66.6	-54.6	14	66.6	-52.6	25	66.6	-41.6	622.330	4	.000
9	Revenue Sharing	268	66.6	201.4	15	66.6	-51.6	8	66.6	-58.6	4	66.6	-62.6	38	66.6	-28.6	771.700	4	.000

The emerging themes from the key informants also show that CBET contributed to socio-economic development. A key informant asserted that,

*“There is creation of employment opportunities from the enterprises, offering skill training for the community members, opening up of art and crafts markets in Kasese, Kabrole and Mbarara, increased household investments from the income received e.g. for buying cows, goats; food markets e.g. crafts makers buy food from the communities instead of big hotels; community sensitization on health, helping to reduce insecurity; Katwe-Kabarole project of cages reduced the challenges caused by crocodiles; safe water project reduced the distance trekked to get safe water, education, site entrance fees are used in maintenance of feeder roads, schools and health facilities; village saving groups have cropped up and this has helped to improve/develop the local economy and research papers have informed development of the area which socially touches the community* **KIW13/01/2024: 02:34 pm)**

The table (4.7) shows the uses of income from CBET in Muhokya Subcounty and Lake Katwe Subcounty, providing the number of respondents, the percentage for each use, the total percentage, and the results of Chi-Square tests to determine the statistical significance of differences between the two sub counties. Overall, the results (Table 4.6) indicate that a biggest proportion of the respondents (23.3%) used the revenue to pay for medical services. This was followed by the proportion of those who used the income to pay school fees (22.2%), and buying household items (20.8%). The smallest proportion of the respondents indicated that they used the revenue from CBET to plough into agricultural production (3.4%) followed by spending on social activities like alcohol, marriage and funerals (5.8%), and buying agricultural inputs (6.1%).

In relation to the two study sites, the results reveal significant differences between Muhokya and Lake Katwe for "buying agricultural inputs such as pesticides, seeds, tools" and "ploughing into agricultural production." Lake Katwe has higher participation rates in these activities compared to Muhokya. however, there was no significant differences between the two sub counties in for "paying school fees," "buying assets such as land, bicycles, radios," "buying household items such as soap, sugar, clothes," "paying for health and medical services," and "spent on social relationships like alcohol, marriage, and funerals," indicating similar usage patterns of CBET income across both locations. These results imply that much of the income from CBET is spend by the benefiting communities to pay for medical services, settle school dues, buy household items and buying assets such as land. Less of the income received is invested in agriculture. The Pearson's Ch. Square results indicate that the reported used of income by CBET communities do not vary by site except for investment into agriculture as shown by the p-values above the alpha level indicating non statistically significant relationship for the former and p-value below 0.05 for the later (Ploughing into agricultural production).

**Table 4. 7: Uses of income from Community based Ecotourism around Queen Elizabeth National Park Communities**

	Uses of income from CBET	Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Statistics		Square
		N	%	N	%	N	%	Pears on Chi-Square	P-value	Cramer's V
1	Paying school fees	148	77.5	265	80.1	265	80.1	1.739	.072	.187
2	Buying assets such as land, bicycles, radios	126	66.0	218	65.9	218	65.9	.005	.004	.943
3	Buying household items such as soap, sugar, clothes	141	73.8	248	74.9	248	74.9	.256	.028	.613
4	Paying for health and medical services	161	84.3	278	84.0	278	84.0	.045	.012	.832
5	Spent on social relationships like alcohol, marriage and funerals etc	40	20.9	69	20.8	69	20.8	.004	.003	.953
6	Buy agricultural inputs such as pesticides, seeds, tools	33	17.3	73	22.1	73	22.1	5.938	.134	.015
7	Ploughing into agricultural production	13	6.80	41	12.4	41	12.4	12.897	.197	.000

**4.5.2 The Environmental Contribution of Community-Based Ecotourism around Queen Elizabeth National Park Areas in Kasese District**

The table (4.8) presents data on respondents' levels of agreement with various environmental contributions of community-based ecotourism (CBET). The responses are categorized into "Strongly Agree," "Agree," "Neutral," "Disagree," and "Strongly Disagree." The table also includes Chi-Square statistics to evaluate the significance of deviations from expected values. The results (Table 4.8) show that, the observed frequencies of respondents who strongly agreed with the stated environmental contributions of CBET (conservation incentives, habitat restoration, wildlife protection, sustainable resource management, environmental education, research opportunities, and reduced environmental impact) was higher than the observed frequencies for respondents who disagreed and those who strongly disagreed. The observed frequencies for the environmental contributions that the respondents agreed with were higher than the expected frequencies (66.6

given degrees of freedom ( $n - 1 = 4$ ) giving positive residuals except for environmental contribution like sustainable resource management and environmental education at the fourth level of agreement (Agree). These results show that CBET is associated with positive environmental contributions around queen Elizabeth National Park to a large extent in terms of conservation incentives, habitat restoration, wildlife protection, sustainable resource management, environmental education, research opportunities and reduced environmental impact. The results reveal that there is significant strong agreement for conservation incentives, habitat restoration, wildlife protection, sustainable resource management, environmental education, and research opportunities, indicating respondents perceive these as major positive contributions of CBET. However, there is significant disagreement with the statement that CBET reduces environmental impact, indicating respondents might be sceptical or have observed negative impacts.

From the key informant interview responses on the environmental contribution of CBET, it emerged that the approach has reduced poaching due to increased collaboration with the communities, promoted environmental conservation activities like tree planting from the increased incomes, promoted waste management in are like Kikorongo where plastics are collected and used for making crafts and briquettes, and promoted environmental awareness and education among the communities **(KIW13/01/2024: 02:34 pm)**. The other cited environmental contributions were provision of tree seedlings to the community members, sustainable use of resources for example seasonal harvesting of fuel wood from the park and control of invasive weeds from lake Edward.

**Table 4. 8: Perceived Environmental contributions of CBET in Queen Elizabeth National Park Areas in Kasese District**

To what extent do you agree or disagree with the following environmental contributions of community-based ecotourism?		Strongly Agree			Agree			Neutral			Disagree			Strongly Disagree			Chi-Square		
		Observed(N)	Expected(N)	Residual	Observed(N)	Expected(N)	Residual	Observed(N)	Expected(N)	Residual	Observed(N)	Expected(N)	Residual	Observed(N)	Expected(N)	Residual	X <sup>2</sup>	df	As. sig
1	Conservation Incentives	173	66.6	106.4	44	66.6	-22.6	50	66.6	-16.6	16	66.6	-50.6	50	66.6	-16.6	224.372	4	.000
2	Habitat Restoration	195	66.6	128.4	48	66.6	-18.6	27	66.6	-39.6	43	66.6	-23.6	20	66.6	-46.6	317.255	4	.000
3	Wildlife Protection	220	66.6	153.4	38	66.6	-28.6	37	66.6	-29.6	16	66.6	-50.6	22	66.6	-44.6	447.075	4	.000
4	Sustainable Resource Management	103	66.6	36.4	133	66.6	66.4	33	66.6	-33.6	37	66.6	-29.6	27	66.6	-39.6	139.748	4	.000
5	Environmental Education	129	66.6	62.4	85	66.6	18.4	29	66.6	-37.6	29	66.6	-37.6	61	66.6	-5.6	106.474	4	.000
6	Research Opportunities	123	66.6	56.4	50	66.6	-16.6	54	66.6	-12.6	31	66.6	-35.6	75	66.6	8.4	74.372	4	.000
7	Reduced Environmental Impact	68	66.6	1.4	57	66.6	-9.6	57	66.6	-9.6	55	66.6	-11.6	116	66.6	49.4	53.231	4	.000

### **4.5.3 Challenges Faced by Community-Based Ecotourism around Queen Elizabeth National Park areas in Kasese District**

The table (4.9) shows the challenges faced by Community-Based Ecotourism in Muhokya Subcounty and Lake Katwe Subcounty. The results include the number of respondents, the percentage for each challenge, the total percentage, and the results of Chi-square tests to determine the statistical significance of differences between the two sub counties. The results show that, overall, unsustainable infrastructure (93.3%), seasonality and income variability (91.2%), limited resource and capacity (90.6%), difficulty in balancing between conservation and economic development (89.4%), inadequate community training and education (87%), cultural and social hindrances (86.7%), negative environmental impact (85.8%), were the most outstanding challenges. These results imply that community-based ecotourism is associated with multiple challenges that may hamper this form of natural resources conservation and sustainable development of communities that rely on such resources for their livelihood. Further, the results show that the communities are now conversant with the role of government regulations and policies in sustainable resources management as this was listed among the least challenges.

In relation to the two sub counties studied, the results revealed significant differences in terms of limited resources and capacity between Muhokya and Lake Katwe, with a higher percentage of respondents in Muhokya identifying this as a challenge compared to Lake Katwe. However, for the challenges of balancing conservation and development, unsustainable infrastructure, seasonality and income variability, competition and market access, cultural and social issues, environmental impact, limited community training and education, inconsistent regulations and policies, and non-inclusive community involvement, there are no significant differences between the two sub counties, indicating similar perceptions of these challenges across both locations. Meaning that some sections of communities involved in CBET face different levels of financial and capacity related challenges.

**Table 4. 9: Challenges faced by Community-Based Ecotourism Around Queen Elizabeth**

	CBET Challenges	Muhokya Subcounty		Lake Katwe Subcounty		Overall		Ch. Square Statistics		
		N	%	N	%	N	%	Pearson Chi-Square	P-value	Cramer's V
1	Limited Resources and Capacity	133	95.7	166	86.9	299	90.6	5.490	.128	.019
2	Balancing Conservation and Development	123	88.5	172	90.1	295	89.4	.444	.037	.505
3	unstable Infrastructure	132	95.0	176	92.1	308	93.3	.445	.037	.505
4	Seasonality and Income Variability	124	89.2	177	92.7	301	91.2	1.686	.071	.194
5	Competition and Market Access	105	75.5	131	68.6	236	71.5	1.533	.068	.216
6	Cultural and Social Issues	119	85.6	167	87.4	286	86.7	.447	.037	.504
7	Environmental Impact	123	88.5	160	83.8	283	85.8	.969	.054	.325
8	Limited community Training and Education	124	89.2	163	85.3	287	87	.634	.044	.426
9	Inconsistent Regulations and Policies	83	59.7	112	58.6	195	59.1	.009	.005	.922
10	Non inclusive Community Involvement	110	79.1	151	79.1	261	79.1	.019	.008	.890

**National Park areas in Kasese District**

The key informants also cited a number of challenges encountered in implementing CBET in the study area. Some of them include, conflicts between the community and the park authorities. Poisoning of wildlife like lions, insecurity within the region, unfair revenue sharing, outbreak of unstoppable fires, climate change with associated events like floods and landslides e.g. Nyamurabo hence taking away facilities along the river banks, wild animals-crop raids, effect of epidemic like the COVID19, low educational levels of the community members, duplication of activities with limited innovativeness, high turnover of trained personnel, crowding of enterprises, and zoonotic diseases like anthrax affecting animals in the park and transmitting to the community. These results show that where CBET in Queen Elizabeth National Park has taken shape and is now associated with several socio-economic and environmental contributions, a number of challenges are encountered.

## **CHAPTER FIVE: DISCUSSION**

### **5.1 Introduction**

This section covers a detailed discuss on the study findings that follows the pattern of the study objectives. It includes a presentation of the most outstanding study findings, discussion of the significance of these results and cross-referencing them with previous related studies about the topic and various constructs of the present study.

### **5.2 Community-Based Ecotourism Activities and Services around Queen Elizabeth National Park Areas in Kasese District**

This study established that buffer zone management, fence maintenance, habitant restoration, law enforcement invasive species control, wildlife monitoring, fire management and anti-poaching patrols are the major nature conservation practices being implemented around Queen Elizabeth National Park. Different community-based ecotourism sites offer a diversity of services depending on existing resources and the perceptions of the surrounding communities (Makindi, 2016). These results in the current study imply that Queen Elizabeth National Park management has fostered several measures to conserve wildlife. Some of the measures highlighted here have been previous reported in related previous studies (Harilal et al., 2021).

The results however revealed that park management has under looked some crucial conservation measures like long-term planning and partnerships with researchers and collaboration with non-government organisations. Limited long-term planning implies non-existence of sustainable measures that would ensure continued benefit from the tourism attractions in the area for long. This however could be mean that ecotourism in the current study area has not been fully operationalised to involve the local communities in long-term planning therefore long-term plans are drawn at higher administrative levels that the communities are unaware of. The sustainability of any nature conservation measure require long term planning from which strategic objectives regarding conservation would be defined (National Plannning Authority, 2020). The Ch-square test of association results also revealed that whereas a number of conservation measures are undertaken around Queen Elizabeth National Park, these vary from significantly from onsite

ecotourism site to the other. This means that tourists seeking adventure in the study area would experience different levels of services at the different sites. The results here related to the findings by Harilal et al. (2021) who argue that conservation through CBET generally improved conservation but the measures implemented were largely dependent on geographic location of communities, and the specific conservation and preservation measures and the level of ecotourism.

From the study, findings show that cultural experience, proportion, cultural performances, community conservation projects, community transport services, and community operated lodges, are the most dominant ecotourism activities services. These elements define what community-led tourism should be comprised of (Arsad et al., 2021). The Chi-Square test results indicated that the aforementioned ecotourism services and activities were not significantly tied to specific sites which means that they can be accessed uniformly from all the sites.

However, results showed that there were other ecotourism activities and services developed in the study areas but on a small scale and these included home stays, local food tours, community-led guided tours, artisan markets, language and cultural exchange programmes, and cultural interpretation centres. The results imply that stakeholders have not fully exploited the potential community-based ecotourism around Queen Elizabeth National Park. This can be explained by lack of capacity by the community members to participate and provide needed tourist services. These results may also be explained by absence of demand for services highlighted as underdeveloped in the study area.

### **5.3 Level of Community Participation in the Development of Community-Based Ecotourism around Queen Elizabeth National Park Areas in Kasese District**

The success of community-based ecotourism depends largely on proactive actions of the community members where the nature-based tourism attraction does exist. The current study established that communities around Queen Elizabeth National Park were mainly involved in conservation projects, revenue sharing and benefit distribution, community meetings and workshops, cultural preservation, conflict resolution, local marketing and production, and environment education programs. These findings are expected as the stated forms of community

involvement form the bases of CBET (Pornprasit & Rurkkhum, 2019). However, the results reveal that communities around the study area are involved in a few ecotourism services/activities compared to the CBET activities and services basket. For example, it was noted that communities are less involved in community home stay networks, community-based conservation fund, needs assessment, monitoring and evaluation, community-based regulations, community managed trails and facilities, tourism planning, training and capacity building, local guide programs, and craft and souvenir production and yet these form the gist of CBET (Kunjuraman, 2022). Kunjuraman (2022) while investigation local community participation challenges reports that a number of challenges stand in the way of CBET and suggests that to overcome these, there is need to adopt approaches to bring on board key stakeholders including the local. For the CBET activities that the community would get involved in, there are variations in the levels of involvement in relation to spatial differences. This signifies that different communities attach values to their natural resources different especially on the African ecotourism landscape (Newmark, 2002). Kunjuraman (2022) warns that non-involvement of the local community in development of CBET would multiply the challenges faced during implementation of CBET measures.

The findings from the current study also revealed that the level of community participation in local marketing and production, revenue sharing and benefit distribution, environment education programs, local guide programs, community based regulations, conservation projects, needs assessment, community based conservation fund community, managed trails and facilities, craft and souvenir production, home stay programs, community home stay networks cultural preservation, tourism planning committees, and conflict resolution remained the same over space. These avenues of community participation should therefore be upscaled to other ecotourism site as they would not vary over space.

#### **5.4 The Socioeconomic and Environmental Contribution of Community-Based Ecotourism Around Queen Elizabeth National Park Areas in Kasese District**

Community based ecotourism is a nature conservation as well as community socio-economic development strategy because of its potential to achieve multifaceted objectives (Koki, 2017; Ondicho, 2012; Sangpikul, 2017). The current study established that community-based

ecotourism was associated largely with socio-economic and environmental contributions to the communities in and around queen Elizabeth National Park. The study reveals that CBET contributed positively to the social economic development of the communities mainly through income generation, diversification of livelihoods, empowerment, education and skills development, infrastructure development, cultural preservation, increased local pride, and revenue sharing. Previous schoolers (e.g., Ma et al., 2019) have reported socio-economic benefits such as increase in household incomes, and wellbeing of especially high altitude dwellers thus the current study results are expected.

The study showed that from the community-based ecotourism proceeds, the households that participate are able pay their children' school dues, pay for medical services, buy asset. Similar results were posted by Arsad et al. (2021) who passed the impact of CBET on social and economic conditions of communities in Belko, Situbondo Regancy area in Indonesia. Their study established that the conservation approach increased the incomes of the middle- and high-income groups. Households accumulate assets from the extra income earned after spending on school dues and medical expenses (Mendenhall et al., 2012) thus, in the current study, household income of communities participating in CBET should have increased that cater for school and medical bills as well as buy household assets. Similar study carried out in Ghalegaun and Golaghat of Nepal by Anup et al. (2021) revealed that CBET increased the livelihood alternatives of the communities living near the protected areas. In addition, the approach facilitated the development of infrastructure, enhanced women empowerment and local culture. Moswete et al. (2020)'s study on the village-based tourism and community participation in Matsheng villages in south Botswana found that the approach promoted increased awareness, reduced illegal wildlife hunting, promoted seasonal job opportunities, monetary benefits to the community trust, improved individual cash incomes and facilitated infrastructural development for tourism and the community.

In terms of environmental contribution, the current study findings reveal that CBET was associated with positive environmental contributions around queen Elizabeth National Park to a large extent in terms of offering conservation incentives, habitat restoration, wildlife protection, sustainable resource management, environmental education, research opportunities and reduced

environmental impact. Harilal et al. (2021)'s study established similar findings by noting that CBET measures resulted into increase in conservation and preservation of natural resources that associated with large scale ecological benefits which results into sustainable environmental management and achievement of the overall objectives of conservation and development. Relatedly, Anup et al. (2021) in their study argue that ecotourism had supported the conservation of flora and fauna, promoted of alternative energy sources, and the management of solid waste in the popular tourist destinations of Ghalegaun and Golaghat of Nepal. This means that if managed appropriately, CBET can harness benefits of natural conservation to the maximum not only in Queen Elizabeth National Park but also other protected areas in Uganda and across the globe. The trickle down effects of the approach can enable the realisation of multiple benefits in the community. A healthy environment for example improves the livelihoods of the communities due to the increase supply of ecosystem, services like buffer against hazards like floods and landslides (Nyamweru & Kimaru, 2008; Seddon et al., 2020).

In the present study, both households and key informants hinted on some of the negative consequences and challenges of implementing CBET such as conflicts over unfair revenue sharing with the communities, poor treatment by the park authorities, park encroachment on peoples' land among others. Anup et al. (2021) report that CBET was associated with negative social and economic conditions such as increase prices of basic goods in the communities around the conservation areas and increased waste burden from the increased number of tourists. Moswete et al. (2020)'s study on the other hand reported negative impacts such as noise pollution and disruption of the village peace and tranquillity, especially during the annual Khawa Dune challenge and cultural festival in Bostwana. This means that the implementation of CBET measures is influenced by a number of factors. Fionasari (2024) for example established that cultural factors and environmental factors had a significant effect on CBET. cultural factors, environmental factors. These findings show that the application of the CBET is not devoid of challenges as the factors that contribute to success may be diverse and as such, authorities should find ways of controlling the negative effect of variables like culture and attitude in order to ameliorate the negative socio-economic consequences while leveraging the positive benefits of the CBET. Anup et al. (2021) suggests regular assessments of community attitude and

perceptions and involvement of local communities at all stages while Moswete et al. (2020) proposed beneficial and inclusive tourism development activities and projects for tourism sustainability.

## CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

### 6.1 Conclusion

Based on the study findings and their discussion in the previous chapter, a number of conclusions can be made under each study objective.

QENP community-based ecotourism centres host and offer mainly nature-based tourism activities and services but some activities and services also vary from one site to the other. There is a limited range of what is offered that undermines the realisation of the full benefit potential of this conservation model. The management undertakes anti-poaching patrols, buffer zone management, wildlife monitoring, fire management, fence maintenance, public advocacy, law enforcement, and invasive species control measure uniformly across the two sub counties but the percentage of community members participating in sustainable tourism management, research and scientific studies, water resource management, collaboration with NGOs, long-term planning, and partnerships with researchers vary significantly across the study area.

There is a low level of community participation in community-based ecotourism among the communities around QENP. The study indicated that communities mainly participated in activities and services including conservation projects, revenue sharing and benefit distribution, community meetings and workshops, cultural preservation activities, conflict resolution, local marketing and production, and environment education programs. The participation in activities involving training and capacity building, and monitoring and evaluation varied significantly between Muhokya and lake Katwe sub counties. The community members mostly participated in services like community conservation projects, community meetings and workshops, cultural preservation, local marketing and production, environment education programs, and craft and souvenir production.

CBET around QENP is associated with positive socio-economic and environmental benefits. The strategy was shown to increase household incomes, improve livelihoods and wellbeing, offered education and skills and conservation of the natural environment hence ensuring socio-ecological sustainability. However, a number challenges cutting across all the communities present

themselves in form of limited resource and capacity, difficulty in balancing between conservation and economic development, inadequate community training and education, cultural and social hindrances and negative environmental impact.

## **6.2 Recommendations**

The recommendations in the study are drawn from the conclusions of the study and in line with the three major research objectives investigated. This mainly applies to the recommendations related to policy. A subsection is however presented areas of future research efforts to broaden the understanding about the current study them.

### **6.2.1 Policy recommendations**

Park management should strengthen the existing conservation measures under the community-based ecotourism approach, encourage communities to participate in long term planning for the tourism sector and wildlife and tourism development agencies should embark on mass education of communities in CBET to encourage mindset change and improve the communities' attitude towards CBET at across all the sites.

Measure to encourage community participation in CBET activities and services such as craft and souvenir production, local guide programs, training and capacity building, tourism planning committees, home stay programs, community managed trails and facilities, community-based regulations, monitoring and evaluation, needs assessment, community-based conservation fund, community home stay networks. This study established that communities in Queen Elizabeth National Park communities are involved in only a few ecotourism activities which undermines the original intentions of nature conservation through community-based ecotourism. The study established that there are some nature conservation measures in existence but ununiformly applied. The study recommends standardizing conservation practices across all areas to ensure consistent implementation. It also suggests enhancing community involvement in conservation activities, fostering partnerships with researchers and NGOs, and incorporating long-term planning that includes local community input to improve sustainability and socio-economic benefits.

To harness the socio-economic and environmental conservation benefits of CBET in protected areas, there is need to scale-up the CBET interventions among all communities surrounding the conservation areas beyond queen Elizabeth National Park areas. The study showed spatial variability in the benefits which means that the approach is not uniformly applied the conservation centres.

### **6.2.2 Recommendation for Future Research**

This study's scope was restricted to only two sub-counties involved in community-based ecotourism around Queen Elizabeth National Park and the findings showed spatial variations on some aspects of CBET even when the study was within the same conservation area. Therefore, a comparative study covering multiple conservation areas within the western region but also in other regions would provide more insights into the implementation of CBET strategy.

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## APPENDICES

### Appendix I: Questionnaire

Dear respondents,

This questionnaire is to help Mr. Songha Ramadan, Reg. No.15/U/14398/GMAG/PE a student of M.A in Geography at Kyambogo University to obtain information that will assist him in writing a dissertation that is a partial requirement for this course. Information supplied here will be treated with the highest confidentiality as it is NOT intended for any other purpose. Therefore, to give the necessary information, we respectfully ask that you help by answering the questions truthfully. The assessment of community-based ecotourism as a sustainable development strategy for the Queen Elizabeth National Park area on the slopes of the Rwenzori Mountains in Western Uganda is the subject of the study.

#### Location Identifiers

Sub-county.....

Parish.....

Village.....

Latitude.....Longitude.....Elevation.....

<b>Section 1: Socio-economic characteristics</b>	
1.1 What is your household Position?	<ol style="list-style-type: none"> <li>1. Father</li> <li>2. Mother</li> <li>3. Son</li> <li>4. Daughter</li> <li>5. Grandchild</li> <li>6. Grandfather</li> <li>7. Grandmother</li> <li>8. Others</li> </ol>
1.2. Gender of respondent	<ol style="list-style-type: none"> <li>1. Male</li> <li>2. Female</li> </ol>
1.3 Age (years) of the respondent.	
1.4 What is your marital status	<ol style="list-style-type: none"> <li>1. Cohabiting</li> <li>2. Divorced</li> <li>3. Married</li> <li>4. Separated</li> <li>5. Single</li> <li>6. Widowed</li> </ol>
1.5 What is your level of education	<ol style="list-style-type: none"> <li>1. No formal education</li> <li>2. Primary</li> <li>3. Ordinary (O) level</li> <li>4. Advanced (A) level</li> <li>5. Specialized/Vocational training</li> <li>6. Graduate (Diploma/Degree)</li> <li>7. Post-graduate (Masters/PhD)</li> <li>8. Others (specify)</li> </ol>
1.6. How many household members stay in your house?	
1.7 How many years have you	

lived in this village?																												
1.8 What is your main source of livelihood?	<ol style="list-style-type: none"> <li>1. Tour guiding</li> <li>2. Restaurant/hotel business</li> <li>3. Causal laboring</li> <li>4. Charcoal burning</li> <li>5. Crop farming</li> <li>6. Art work selling</li> <li>7. Conservation payments</li> <li>8. Fishing/ fish farming</li> <li>9. Formal employment</li> <li>10. Livestock farming</li> <li>11. Property income e.g., rentals</li> <li>12. Transport services (tourist van operation/ Boda-boda riding)</li> <li>13. Others (Specify).....</li> </ol>																											
1.9 What is your monthly household income from the following sources?	<table border="1" data-bbox="618 856 1416 1465"> <thead> <tr> <th data-bbox="618 856 1117 932">Source of Income</th> <th data-bbox="1117 856 1416 932">Monthly earning (UGX)</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 932 1117 974">Tour guiding</td> <td data-bbox="1117 932 1416 974"></td> </tr> <tr> <td data-bbox="618 974 1117 1016">Restaurant/hotel business</td> <td data-bbox="1117 974 1416 1016"></td> </tr> <tr> <td data-bbox="618 1016 1117 1058">Charcoal burning</td> <td data-bbox="1117 1016 1416 1058"></td> </tr> <tr> <td data-bbox="618 1058 1117 1100">Causal laboring</td> <td data-bbox="1117 1058 1416 1100"></td> </tr> <tr> <td data-bbox="618 1100 1117 1142">Crop farming</td> <td data-bbox="1117 1100 1416 1142"></td> </tr> <tr> <td data-bbox="618 1142 1117 1184">Fishing/ fish farming</td> <td data-bbox="1117 1142 1416 1184"></td> </tr> <tr> <td data-bbox="618 1184 1117 1226">Formal employment</td> <td data-bbox="1117 1184 1416 1226"></td> </tr> <tr> <td data-bbox="618 1226 1117 1268">Livestock farming</td> <td data-bbox="1117 1226 1416 1268"></td> </tr> <tr> <td data-bbox="618 1268 1117 1310">Property income e.g., rentals</td> <td data-bbox="1117 1268 1416 1310"></td> </tr> <tr> <td data-bbox="618 1310 1117 1352">Conservation fees</td> <td data-bbox="1117 1310 1416 1352"></td> </tr> <tr> <td data-bbox="618 1352 1117 1394">Transport services (tourist van operation/ boda-boda riding)</td> <td data-bbox="1117 1352 1416 1394"></td> </tr> <tr> <td data-bbox="618 1394 1117 1465">Others (Specify).....</td> <td data-bbox="1117 1394 1416 1465"></td> </tr> </tbody> </table>		Source of Income	Monthly earning (UGX)	Tour guiding		Restaurant/hotel business		Charcoal burning		Causal laboring		Crop farming		Fishing/ fish farming		Formal employment		Livestock farming		Property income e.g., rentals		Conservation fees		Transport services (tourist van operation/ boda-boda riding)		Others (Specify).....	
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Others (Specify).....																												
1.10 Which of the following social networks do you belong to? ( <b>Multiple response</b> )	<ol style="list-style-type: none"> <li>1. Community conservation associate/cooperatives</li> <li>2. Village savings and loan associations (VSLAs)</li> <li>3. Savings and credit cooperative organizations (SACCOs)</li> <li>4. Merry-go-rounds (table banks)</li> <li>5. Others (specify)</li> </ol>																											
<b>Section 2: Section 2: Community-based Responses</b>																												

<b>ecotourism activities and services around Queen Elizabeth National Park</b>	
<p>2.1 Of the following, what has been done to conserve fauna and flora? (<b>Multiple responses</b>)</p>	<ul style="list-style-type: none"> <li>a. Wildlife Monitoring</li> <li>b. Habitat Restoration</li> <li>c. Buffer Zone Management</li> <li>d. Anti-Poaching Patrols</li> <li>e. Community Engagement</li> <li>f. Educational Programs</li> <li>g. Sustainable Tourism Management</li> <li>h. Research and Scientific Studies</li> <li>i. Fence Maintenance</li> <li>j. Fire Management</li> <li>k. Water Resource Management</li> <li>l. Invasive Species Control</li> <li>m. Collaboration with NGOs</li> <li>n. Law Enforcement</li> <li>o. Public Advocacy</li> <li>p. Long-term Planning</li> <li>q. Partnerships with Researchers</li> <li>r. Others (specify)</li> </ul>
<p>2.2 Which of the following community-based ecotourism activities take place in your area? (<b>Multiple responses</b>)</p>	<ul style="list-style-type: none"> <li>a. Community Transport Services</li> <li>b. Cultural Experiences</li> <li>c. Community Conservation Fees</li> <li>d. Language and Cultural Exchange Programs</li> <li>e. Community-Managed Trails</li> <li>f. Cultural Interpretation Centers</li> <li>g. Community-Operated Lodges</li> <li>h. Local Homestay Crafts</li> <li>i. Community-Managed Tours</li> </ul>

	<ul style="list-style-type: none"> <li>j. Community Conservation Projects</li> <li>k. Workshops and Demonstrations</li> <li>l. Cultural Performances</li> <li>m. Artisan Markets</li> <li>n. Community-Led Guided Tours</li> <li>o. Local Food Tours</li> <li>p. Homestays</li> <li>Others (specify)</li> </ul>
<p>2.3 Which of the following community-based ecotourism activities are you involved in your area? (<i>Multiple responses</i>)</p>	<ul style="list-style-type: none"> <li>a. Community Meetings and Workshops</li> <li>b. Tourism Planning Committees</li> <li>c. Needs Assessment</li> <li>d. Training and Capacity Building</li> <li>e. Local Guide Programs</li> <li>f. Homestay Programs</li> <li>g. Craft and Souvenir Production</li> <li>h. Environmental Education Programs</li> <li>i. Conservation Projects</li> <li>j. Cultural Preservation</li> <li>k. Community-Managed Trails and Facilities</li> <li>l. Local Marketing and Promotion</li> <li>m. Revenue Sharing and Benefit Distribution</li> <li>n. Community-Based Regulations</li> <li>o. Monitoring and Evaluation</li> <li>p. Conflict Resolution</li> <li>q. Community-Based Conservation Funds</li> <li>r. Community Homestay Networks</li> <li>s. Others (specify)</li> </ul>

<b>SECTION 3: People's Perceptions about community-based ecotourism</b>						
3.1	<b>To what extent do you agree or disagree with the following opinions about community-based ecotourism?</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	a. Positive Economic Impact b. Improved Infrastructure c. Cultural Preservation d. Environmental Awareness e. Community Empowerment f. Educational Opportunities g. Improved Infrastructure h. Increased Local Pride i. Positive Cultural Exchange j. Income Disparities k. Environmental Concerns l. Cultural Commodification m. Land Tenure Issues/conflicts n. Seasonal Employment  o. Others (specify)					
4.1	<b>To what extent do you agree or disagree with the following opinions about the environmental contribution of community-based ecotourism in your area?</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	a. Conservation Incentives b. Habitat Restoration c. Wildlife Protection d. Sustainable Resource Management e. Environmental Education f. Research Opportunities g. Reduced Environmental Impact h. Preservation of Indigenous Knowledge  i. Others (specify)					

4.2 What are the uses of income you get from community-based ecotourism activities? (*Multiple choices*)

- a. Pay school fees
- b. Buy assets such as land, bicycles, radios
- c. Buy household items such as soap, sugar, clothes
- d. Pay health and medical services
- e. Spent on social relationships like alcohol, marriage and funerals etc.
- f. Buy agricultural inputs such as pesticides, seeds, tools
- g. Put into agricultural training
- h. Others (specify)

4.3 Which of the following are the challenges facing community-based ecotourism initiatives around queen Elizabeth National Park? (*Multiple choices*)

- a. Limited Resources and Capacity
- b. Balancing Conservation and Development
- c. Sustainable Infrastructure
- d. Seasonality and Income Variability
- e. Competition and Market Access
- f. Cultural and Social Issues
- g. Environmental Impact
- h. Lack of community Training and Education
- i. Inconsistent Government Regulations and Policies
- i. Non inclusive Community Involvement and Decision-Making
- j. Others (specify)

**Appendix II: Interview Guide**

Name.....

Position: .....

Contact.....

Email: .....

**Question 1.**

What has been done to conserve fauna and flora in the queen Elizabeth National Park?

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.....**Question 2.**

What are some of the community-based ecotourism activities taking place in around the park?

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**Question 3.**

Comment on the level of community member involvement in community-based ecotourism activities mentioned above.

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Question 4.

What is the perception of community members about the community-based ecotourism initiatives around Queen Elizabeth National Park?

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Question 5

How has community-based ecotourism contributed to peoples' socio-economic conditions in this area?

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Question 6

What has been the environmental contribution of community-based ecotourism in this area?

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Question 7

What challenges have you encountered with community-based ecotourism in this area?

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### Appendix III: Research Budget

<b>Research Assistants</b>	<b>Allowance</b>	<b>4*10 days</b>	<b>30,000</b>	<b>1,200,000</b>
A. Equipment				
1	GPS units	2	100000	200000
2	Cammera	2	100,000	200,000
3	Camera and Gps accessories		30,000	30,000
B. Materials and Supplies				
1.Printing	Questionnaire	370	500	185,000
2.Photocopy	Questionnaire	370	200	74,000
3.Pens	box	1	20,000	20,000
4.Blackbooks		4	20,000	80,000
5. Notebooks		5	5,000	25,000
C. Travel				
Pilot Study	In two sub counties in Kasase	2	150,000	300,000
Field movements	Kasese	2	200,000	400,000
Research Assistants	Field travels	4	100,000	400,000
<b>TOTAL</b>				<b>3,114,000</b>

**Appendix IV: A Data Request Letter to UNMA**



## Appendix V: Plagiarism Test Results

Songha_Thesis_corrected_copy			
ORIGINALITY REPORT			
12%	9%	5%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
PRIMARY SOURCES			
1	Submitted to Napier University Student Paper		1%
2	researchbank.swinburne.edu.au Internet Source		1%
3	irbackend.kiu.ac.ug Internet Source		1%
4	www.researchgate.net Internet Source		<1%
5	Submitted to Kyambogo University Student Paper		<1%
6	www.fairfaxcounty.gov Internet Source		<1%
7	dspace3.mak.ac.ug Internet Source		<1%
8	ujcontent.uj.ac.za Internet Source		<1%
9	Submitted to Kabale University Student Paper		<1%

10	<a href="http://digitalcollections.sit.edu">digitalcollections.sit.edu</a> Internet Source	<1 %
11	<a href="http://erepository.uonbi.ac.ke">erepository.uonbi.ac.ke</a> Internet Source	<1 %
12	<a href="http://ir.kiu.ac.ug">ir.kiu.ac.ug</a> Internet Source	<1 %
13	Submitted to International Health Sciences University Student Paper	<1 %
14	<a href="http://www.climatelinks.org">www.climatelinks.org</a> Internet Source	<1 %
15	<a href="http://erepository.uonbi.ac.ke:8080">erepository.uonbi.ac.ke:8080</a> Internet Source	<1 %
16	Moreto, W. D., R. K. Brunson, and A. A. Braga. "Such Misconducts Don't Make a Good Ranger': Examining Law Enforcement Ranger Wrongdoing in Uganda", British Journal of Criminology, 2014. Publication	<1 %
17	<a href="http://umispace.umi.ac.ug">umispace.umi.ac.ug</a> Internet Source	<1 %
18	<a href="http://dspace.cbe.ac.tz:8080">dspace.cbe.ac.tz:8080</a> Internet Source	<1 %
19	<a href="http://ir.knust.edu.gh">ir.knust.edu.gh</a> Internet Source	<1 %