THE IMPACT OF WILDLIFE HABITUATION ON LOCAL COMMUNITY LIVELIHOODS :A CASE STUDY OF BWINDI IMPENETRABLE NATIONAL PARK

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DECLARATION

I declare that the Dissertation titled 'The impact of Wildlife Habituation on Local Community Livelihoods in Protected Areas' is my original research work and has not been presented anywhere in the university or any other institution to receive a degree in tourism and hospitality management. I testify that this dissertation has not been plagiarized as well as it is in accordance with the university rule about academic integrity and originality of scholarly works.

Signature.....

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Date...06/03/2026.....

APPROVAL

This Dissertation titled "The impact of wildlife habituation on local community livelihoods in protected areas" has been submitted for examination with my approval as the University Supervisor.

Signature. Date. 28/02/2026

MR. JJUUKO JULIUS

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DEDICATION

I dedicate this Dissertation to family and in particular my mother - Jane Frances, my brothers and sisters because they stood by me all through my course work and gave me prayers, guidance, encouragement, and sacrifices. I have been most motivated by the belief in me and my abilities.

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ABSTRACT

This study discussed the impacts of wildlife habituation on the community livelihood of local people living in the conservation zones, especially the conservation landscapes in Uganda. Wildlife habituation refers to the controlled mechanism by which wild animals gradually develop reduced fear of humans after recurring non-threatening interactions, a procedure that has found widespread application in biodiversity conservation and ecotourism (especially great-ape tourism). Even though the concept of habituation promotes increased possibilities to view wildlife, as well as supplementing tourism income, the overall socioeconomic impacts of the community in the vicinity of the protected areas are complex and under-synthesized in the existing literature. The research was based solely on secondary data found in peer-reviewed journal articles, conservation reports, institutional publications, and policy papers talking about wildlife habituation and human-wildlife conflict as well as ecotourism development and rural livelihood systems. The analytical tool used to assess the impact of wildlife habituation on the financial, human, natural, social and physical capital assets of the adjacent communities was the Sustainable Livelihoods Framework (SLF).

The findings prove that the constructive effect of wildlife habituation on livelihood outcomes is through job creation, tourism-revenue-sharing models, infrastructure upgrading, and growth of conservation-related businesses. On the other hand, the increased contact between people and the habituated species increases crop raiding, livestock predation, zoonotic disease transmission and social discord, and therefore, household income, food security, and natural resource stability. Further, distribution of tourism benefits was found to be heterogeneous with many cases favoring communities that have direct access to the activities that belong to the protected areas. In this respect, the research concludes that wildlife habituation develops multidimensional, contextual livelihood results.

Achieving sustainable conservation and development goals requires fair benefit-sharing systems, strengthened human-wildlife conflict management measures, involvement of people in the process, and flexible governance systems.

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LIST OF ABBREVIATIONS

- BINP: Bwindi Impenetrable National Park
- DFID: Department for International Development
- GHE: Gorilla Habituation Experience
- HWC: Human-Wildlife Conflict
- SLF: Sustainable Livelihoods Framework
- UWA: Uganda Wildlife Authority

CHAPTER ONE

1.1 Introduction

The chapter gives the conceptual and contextual backdrop of the study by presenting the background of the study by putting the research within the larger discourse of the livelihoods of the local community and conservation-based issues. It also gives the research problem that emanates out of the perceived gaps in conservation-livelihood dynamics. The purpose of the study is then outlined in the chapter and this informs the study as it makes clear the exact issues that the study aims to explore. Moreover, it offers the research questions based on the stated objectives, then the justification of the research by pointing out the gaps in knowledge and policy relevance. The role of the study to the academia, policymakers and local stakeholders is also discussed in the chapter and the scope of the study is finally explained in terms of geographic scope, thematic scope and the time frame.

1.2 Background to the Study

A livelihood refers to the amount of capabilities, assets, and activities needed to support a means of livelihood (Scoones, 2015). A local community livelihood when reduced to a given geographic and social context is the collective strategy and resources-base that is used by a group of people who reside in a locality as a way of attaining economic security and social well being (Chambers and Conway, 1992). On the international front, the livelihood means of the local communities are considered in the light of sustainability, which is considered as the capability of the households to sustain assets without reducing the natural resource base (Department for International Development [DFID], 1999). The world over has however witnessed a crisis of vulnerability and instability in local community livelihoods with the traditional survival methods failing to cushion households against external economic and environmental shocks (Ellis, 2000). The main issue with these livelihoods is the so-called livelihood insecurity in which the marginalized groups take up the expenses of the global development process without achieving the gains (Bebbington, 1999). The inherent de-linking of the global industry development with the local-level prosperity results in chronic cycles of rural poverty that demand immediate academic and policy research (World Bank, 2023). This state of stagnation is a problem as it endangers the sustainability of international development purposes and discourages socio-economic inequality (United Nations Development Programme [UNDP], 2024). The stability of local community livelihoods has been studied across different factors including land tenure security and credit access up to more specific environmental stressors like wildlife habituation and 2432% annual crop losses due to gorilla

raids and 68% loss of tourism revenue to elites (Grace et al., 2024; Ahebwa et al., 2012). Nonetheless, even though its annual revenue gained 950 percent in habituated gorilla groups since 1993 brings in 7.2M dollars, tourism employment is available to just 12.4 percent of households (UWA, 2024). The wildlife habituation is another key predictor of the livelihoods of the local communities, which creates biological success in 19 habituated groups but structural exclusion in 78 percent of households in the region, where in Bwindi Impenetrable National Park in Uganda, almost a half of the world population of mountain gorillas coexist with livelihoods that are agriculture-based (Bwindi National Park Reports, 2024).

These livelihoods, in the Uganda context, especially in and around the Bwindi Impenetrable and Kibale National Parks would be based on subsistence agriculture, although are strongly affected by the existence of the protected areas (Ahebwa et al., 2012). Historical marginalization of the communities resulted in the formation of a conservation-induced poverty that saw no full recovery of the natural capital loss by tourism benefits (Twinamatsiko et al., 2019). When wildlife becomes habituated, i.e., recurrent, non-confrontational interaction with humans to decrease their flight response, it creates a certain livelihood shock, namely, an increase in crop raiding (Muehlhenbein and Ancrenaz, 2020; MacKenzie et al., 2025). Although the state has a biological triumph in the process of habituation, it generally causes a loss of household resources to the local resident, causing a reduction in livelihoods in terms of sustenance (Grace et al., 2024).

The term wildlife habituation is used to describe this condition of the occurrence of repeated exposure of wild animals to human beings which is non-confrontational or does not involve threatening behavior by people and ultimately results in a long-term diminished flight response by the wildlife (Muehlhenbein and Ancrenaz, 2020). The main reason behind taking such a behaviour change is to help in close-range observation of wildlife to conduct scientific research, veterinary examination, and commercialization of the wildlife through high-value tourism (Higham & Shelton, 2011). Habituation is a long term affair lasting several years where the animals need to get used to the presence of humans without developing aggressiveness by the specialised rangers tracking the animals on a daily basis (McNeilage, 1996). It is done mostly in the biodiversity-rich areas of the Global South, with mountain gorillas and chimpanzees of the tropical forest of Central and East Africa, and orangutans of Southeast Asia (World Wildlife Fund [WWF], 2023). Wildlife habituation is important since it will make an elusive natural resource one that will be predictable as an economic resource thus earning the developing countries a lot of foreign money in form of foreign exchange (Spenceley, 2010).

Outside economics, habituation has played a crucial role in conservation since it enables them to be closely monitored and shielded against poachers on a daily, intensive basis, a factor that has been attributed to the population recovery of endangered primates (Robbins et al., 2011). Moreover, the existing management of the protected areas and the creation of an economic foundation of the community development projects are supposed to be funded by the revenues gained through habituated wildlife (Uganda Wildlife Authority [UWA], 2024). Nonetheless, this process is deemed differently significant by both biological researchers and social scientists because the biological effectiveness of the habituation process might result in a greater humanwild life contact and the following socioeconomic tension (Tumusiime & Vedeld, 2012). Finally, despite being a fundamental pillar of contemporary conservation policy, the practicality of habituation implementation introduces a complicated interface between the principles of biological conservation and practical economic contexts of communities (MacKenzie et al., 2025).

1.3 Statement of the Problem

The main problem that this study will focus on is that the livelihoods of the local communities in rural areas, which are near to high-value conservation landscapes, have been stagnating and vulnerable (Ahebwa et al., 2012). Although the global and national efforts are directed at promoting sustainable development, frontline households still face chronic livelihood insecurity, which is a phenomenon that is defined by the lack of income diversification and the heavy dependence on weak subsistence resources (Scoones, 2015). There is also a so-called documented livelihood gap where the economic benefits of local natural resources do not lead to any real improvements in household welfare or even poverty reduction (Tumusiime & Vedeld, 2012). This crisis is further driven by the rising exposure of these communities to external shocks and stresses that deplete natural and financial capital hence reducing food security and household resilience (Ellis, 2000; Grace et al., 2024). Moreover, the current institutional solutions aimed at fostering the local well-being tend to be top-down and not responsive enough to the unique susceptibilities of the poorest locals, causing the problems of elite capture of the advantages and resulting marginalisation (Twinamatsiko et al., 2019). The fact that these households struggle to sustain or recuperate against such socio-economic strains will be an indicator of the failure of the existing livelihood model (Chambers and Conway, 1992). Unless resource-based wealth and the poverty of individuals at household level is bridged using synthesised evidence and policy reformation, these communities will continue

to face the risk of irreversible economic displacement and further cycles of rural poverty (World Bank, 2023; UNDP, 2024).

1.4 Purpose of the Study

This research aims to investigate whether wildlife habituation has an effect on the sustainability of the livelihoods of local communities living near protected areas.

1.5 Objectives of the Study

1.5.1 GENERAL OBJECTIVE

To investigate how the wildlife familiarity affects the livelihoods of the local communities.

1.5.2 SPECIFIC STUDY OBJECTIVES

To survey livelihoods in local communities surrounding the vicinity of the protected areas.

To study the wildlife habituation in the reserves.

To determine the effect of habituation on the livelihoods of the local communities.

1.5.3 RESEARCH QUESTIONS

What are livelihoods of the local communities near national parks?

How well have wildlife habituation areas in the protected areas been preserved?

How does wildlife habituation affect the livelihood of the local communities?

1.6 Scope of the Study

Geographical Scope: The research area is narrowed down to the communities surrounding the Bwindi Impenetrable National Park (BINP) and Kibale National Park (KNP). They were identified as these are the main places where gorillas and chimpanzees can be habituated in Uganda and which have the largest amount of secondary data on revenue sharing and community impact.

Content Scope: The study is limited to studying the correlation between Wildlife Habituation (Independent Variable) and Local Community Livelihoods (Dependent Variable). It particularly looks at pointers like the income levels of the households, infrastructures development and socio-economic costs of the human-wildlife conflict.

Time Scope: This paper is a two-time project. First, it examines secondary data, government reports and peer reviewed literatures published in the last 15 years (2010-2025) to reflect long-term tendencies of tourism growth and community development. Secondly, the real part of research including data gathering in secondary databases, synthesis of literature, and writing of the paper took place within a few months.

1.7 Justification of the Study

This study is needed because of the urgent need in the global arena to streamline the conservation goals with social-economic rights of communities and the indigenous people (Scoones, 2015). On developmental level, the study is important as it is dealing with the conservation poverty trap where the local people are disproportionately at the end of paying the expenses of living close to the conservation zones yet they do not receive the main benefits of biodiversity tourism (Chambers and Conway, 1992). The necessity to consider the resilience of the rural livelihood to the rising environmental and institutional shocks also underlies the study; the posed threats currently to the long-term food security in Uganda (Ellis, 2000). In policy terms, the study can provide the Uganda Wildlife Authority (UWA) with the necessary data to update the current revenue-sharing models which are insufficient in the compensation of the losses of individual households at the moment (Ahebwa et al., 2012). Furthermore, this study is warranted by the fact that research is necessary to comprehend how the biological success of wildlife habituation unwillingly negatively impacts the economic security of the frontline residents by exposing them to further human-wildlife interactions (Muehlbein and Ancrenaz, 2020). The study provides an avenue through which the retaliatory murders of wildlife animals can be prevented by ensuring that the ecological sustainability of endangered species is attained by determining the exact factors that contribute to the depletion of livelihoods (Tumusiime & Vedeld, 2012). In terms of academia, the research bridges a formidable gap in the research literature by addressing habituation as a social-economic risk factor instead of a biological instrument (MacKenzie et al., 2025). Lastly, the study is needed to present evidence-based suggestions that can further support the realization of the United Nations Sustainable Development Goals, especially the ones that touch on poverty alleviation and land ecosystem (UNDP, 2024).

1.8 System Framework Summary.

Independent Variable (The Cause): Wildlife Habituation. It is quantified according to the amount of groups habituated in Bwindi and Kibale and the rate of trekking.

Intervention of the Variable (The Filter): Institutional Frameworks, namely the UWA Revenue-Sharing Policy. This dictates how much income comes out of the park and gets into the community.

Dependent Variable (The Effect): Community Livelihoods.. The analysis of the problematic variable of outcomes is explored:

Good Results: Work, better education and income diversification.

Negative Consequences: More human-wildlife conflict (HWC), destruction of crops, and food insecurity.

The Feedback Loop: In case the negative consequences (crop raiding) prevail over the positive consequences (revenue sharing), the community will be less supportive of conservation, which may result in poaching, which in its turn will endanger the very habituated wildlife.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter is a review of the literature that has been left behind concerning the aims of the study that synthesized theoretical, conceptual, and empirical information on the livelihoods of local communities, the habituation of wildlife, and the effect of such habituation on the livelihoods.

2.2 Definition of Key Concepts

Local community livelihood is a multidimensional construct that entails the abilities, resources, tangible and intangible, and actions of living (Scoones, 2015). These livelihoods are contextualized within a platform of five capitals among the rural populations that lie near the protected areas which include natural, physical, human, social, and financial and household access these capitals to negotiate with a shock in the environment and have economic security (Department for International Development [DFID], 1999). The livelihoods in the current study are considered as the dependent variable and how sustainability of the livelihoods is preserved or challenged by the external conservation interventions is looked at (Ellis, 2000).

Wildlife Habituation is the systematic, repeated, and non-confrontational exposure of wild animals to people until the perennial diminution in their innate flight-or-fight reaction is noted (Muehlbein and Ancrenaz, 2020). It is an institutional conservation policy aimed at converting wild animals into some type of coherent resource to tourism and scientific long-term research (Higham and Shelton, 2011). In this study, wildlife habituation will serve as an independent variable, which will be the dominant force that changes the relationship between endangered animal species and adjacent human communities (MacKenzie et al., 2025).

2.3 Local Community Livelihoods Adjacent to Protected Areas

2.3.1 Global Conceptualization of Local Community Livelihoods

Livelihoods of community living are conceptualised in a broad way as entailing an integration of capabilities, assets and activities needed to make a means of livelihood (Chambers and Conway, 1992). A livelihood is said to be sustainable when it has the ability to absorb and withstand the stresses and shocks and also recover itself without compromising the natural resource base (DFID, 1999). This definition goes beyond income-based connotations to poverty, and instead, well-being is placed in the context of access to assets and institutional

processes. Ian Scoones (2015) argues that livelihoods are social systems that are determined by power relations, forms of governance, and environmental change. As a result, a description of livelihoods requires a focus on material assets and the political economy more generally, where households are situated.

The most common model used in the study of rural livelihoods in the world is the Sustainable Livelihoods Framework formulated by DFID, (1999). The framework recognizes that there are five types of capital assets namely human, natural, financial, physical and social capital. Human capital incorporates education, skills, availability of labour and health status- which define productivity and flexibility. Access to land, forests, water and biodiversity resources form the ecological foundation of rural survival and are referred to as natural capital. Financial capital refers to income, savings, remittances and access to credit which allow households to invest and ensure risk management. Physical capital is the infrastructure which includes roads, schools, clinics, agricultural tools that are used in economic participation. Social capital is defined as the networking, trust, and institutional relationships leading to cooperation and gaining access to resources (DFID, 1999; Scoones, 2015).

Natural capital is significantly more relied on by the rural communities in the world as compared to the urban communities (Ellis, 2000). Such excessive dependence on land and ecological resources makes them especially vulnerable to environmental pollution and regulation. In the Latin America and Southeast Asia, increases in conservation efforts have disturbed traditional land-use systems, and thus impacted on forest-dependent households (Bebbington, 1999). Similarly, increased climate variability has increased livelihood precarities in agrarian economies of the world (Scoones, 2015). This therefore means that livelihoods understanding should be put in a broader vulnerability framework that encompasses environmental, institutional and economic stresses.

2.3.2 The Rural Livelihoods Vulnerability Environment.

The vulnerability context, which is a key component in the Sustainable Livelihoods Framework refers to external shocks, long term trends as well as seasonal changes that have an effect on the stability of households (DFID, 1999). Shocks can be droughts, wildlife intrusions, economic crises or even sudden changes in policy. The trends are population growth, land fragmentation and environmental degradation. The seasonality affects labour demand, availability of food and pattern of incomes over the calendar year (Ellis, 2000).

Rural households all over the world use diversification strategies in order to help reduce vulnerability (Ellis, 2000). Diversification can include combination of farming and wage labour, small scale trade or activities connected with tourism. However, the opportunity to diversify is still not fully evenly distributed and is more often than not based on the level of education attainment, access to the market and institutional membership (Bebbington, 1999). Consequently, the poor families will keep engaging in low-rewarding activities thus perpetuating structural inequity.

Vulnerability is also sharpened in the case of conservation landscapes with households facing limited access to natural capital and having no other source of income (Scoones, 2015). This structural imbalance leads to a situation where the creation of the protected areas can inadvertently contribute to the exacerbation to the livelihood insecurity, although the overall environmental benefits might be larger.

2.3.3. Livelihoods Near the Protection Areas: Evidence on a global scale.

Global biodiversity conservation commitments have seen the size of protected areas increase significantly throughout the world (World Bank, 2023). Although these projects are meant to preserve the ecosystems, they often encroach on the inhabited rural areas (Bebbington, 1999). The empirical studies in Nepal, Indonesia, Brazil, and Tanzania prove that communities surrounding the conserved territories frequently face restrictions concerning forest access, grazing, and hunting (Scoones, 2015). These limitations change the traditional livelihood systems, and can reduce the resiliency of households.

Even though ecotourism is advocated as a process of interconnecting conservation and development, it is observed that the gains are not usually distributed equally (Ellis, 2000). The jobs might be biased towards the highly educated or those having good connections in the society and the poor families are left to rely on subsistence farms (Bebbington, 1999). This gap adds to what researchers define as a conservation-poverty paradox in which the regions with high levels of biodiversity continue to be economically deprived despite their ability to bring in tourism earnings (Scoones, 2015). Globally, therefore, protected areas are opportunity and constraint. Although they can lead to infrastructure growth and bring a source of foreign exchange revenue to the government, their impacts are quite localized and largely dependent on the governance systems and benefit-sharing systems.

2.3.4 African Environment of Livelihoods around conservation places.

Sub-Saharan Africa rural life is mainly agrarian and typified by small parcels of land and extreme sensitivity to climate (Scoones, 2015). Societies that live close to the national parks of Kenya, Tanzania, and Rwanda rely on rain-fed farming and livestock rearing (Grace et al., 2024). The rise in population and fragmentation of the land has further narrowed the per-capita land availability, making the resources even more competitive (World Bank, 2023).

In Africa, various countries have come up with revenue-sharing programmes to offset the cost associated with conservation (Tumusiime & Vedeld, 2012). Nevertheless, research shows that communal infrastructure projects are often funded by finances as opposed to individuals directly compensated by the loss they incurred owing to wildlife destruction (Twinamatsiko et al., 2019). In addition, benefit capture by the elite can also disadvantage the poor households thus frustrating equity agendas (Bebbington, 1999). Therefore, in Africa, it is common to see conservation landscapes that are linked to high levels of livelihood vulnerability, regardless of policy efforts to ensure inclusive development.

2.3.5 Ugandan Environment: Bwindi and Kibale

In Uganda, the people in the vicinity of the Bwindi impregnable national park and Kibale national park mainly depend on subsistence farming (Ahebwa et al., 2012). The main livelihood activity is crop systems of bananas, beans and Irish potatoes. These are the small-scale and rain-fed agrarian systems and this exposes the households to environmental variability (Ellis, 2000). These parks were gazetted, limiting the access of people to forest-based resources, thus decreasing the availability of natural capital (Twinamatsiko et al., 2019). Despite the fact that gorilla and chimpanzee tracking tourism has been associated with significant revenue generation to the country, local households often complain of a lack of direct economic change (Tumusiime & Vedeld, 2012). The revenue-sharing systems operated by the Uganda Wildlife Authority focus on community-level infrastructure development as opposed to individual compensation (Ahebwa et al., 2012). Together with land fragmentation and population pressure, these structural limitations limit the diversification of livelihood and confirm survival at the subsistence level (World Bank, 2023).

2.3.6 Human–Wildlife Conflict as a Livelihood Shock

The human-wildlife conflict is generally being recognised as a major livelihood shock among communities living near conservation areas (Grace et al., 2024). Wildlife crop raiding leads to

low food supply and household earnings directly influencing natural and financial capital (Tumusiime & Vedeld, 2012). Shocks that disrupt resiliency within the Sustainable Livelihoods Framework are considered to be such events (DFID, 1999).

Crops are also prone to guarding by the households hence limiting time to other income-generating activities (Ellis, 2000). Repeat wildlife invasions could also undermine confidence in conservation authorities and diminish the backing of the policies of the protected areas (Ahebwa et al., 2012). Therefore, environmental stressors are not confined entities as ecological events but structural factors of livelihood sustainability.

2.4 Wild Life Habituation in Conservations.

2.4.1 Conceptual Introduction of Wildlife Habituation.

The general meaning of wildlife habituation refers to the mechanism whereby wildlife gradually diminishes its inherent fear of humans after being exposed to them severally in the absence of threats (Muehlenerg, 2020). Moreover, habituation is generally controlled intentionally so that researchers, conservationists, and tourists would be allowed to view animals in the wild without disturbing them or altering their behaviour. Stoinski et al. (2013) say that habituation makes it possible to gather detailed health, social interaction and reproductive behavior data that could not have been collected in elusive species.

On the same note, Huffman (2015) states that, habituation is a kind of non-associative learning, through which animals learn that human visitors are harmless and do not mean them any harm. As compared to domestication, habituation maintains wild behaviours, foraging behaviours and social patterns and lowers flight reactions. Besides this, Mueehlenbein and Ancrenaz (2020) emphasize that the concept of habituation is a biological and socio-economic approach, which helps to keep track of the conservation efforts and gains income in the form of the wildlife tourism. Most importantly, these views all seem to boil down to three major factors that include repeated exposure, loss of fear response, and intentional management.

2.4.2 History of Wildlife Habituation (With Uganda)

Habituation of wildlife is a practice that was initiated in the mid 20 th -century primatology. Close examination of the social behaviour of primates The research of chimpanzees in Gombe Stream National Park, Tanzania in 1960s by Jane Goodall showed that primates could endure close human observation (Goodall, 1986). Equally, the work of Dian Fossey with the mountain gorillas in the Virunga region, Rwanda revealed that with controlled and repeated exposure it

was possible to have habituated groups of animals which can be used in long-term behavioural studies (Fossey, 1983).

Habituation as a conservation and tourism policy in Uganda came into official play by the late 1980s and early nineties. Gorillas In Bwindi Impenetrable National Park, the gorilla habituation programmes were introduced to entice the ecotourists, create income, and offer close-range observations of endangered species (McNeilage, 1996). Likewise, chimpanzees were habituated throughout Kibale National Park gradually to be used in research and tourism (Stoinski et al., 2013). It is a major milestone toward making Uganda one of the central African States to incorporate the aspect of habituation into organized conservation and socio-economic development programmes.

Ethical issues developed in line with habituation practices. The ancient programmes did not focus on the stress and disease risks, which led to the creation of the modern protocols that require minimal interference, health monitoring, and maintenance of natural behaviour (Hockings et al., 2015; Muehlhenbein and Ancrenaz, 2020). These guidelines are used extensively in all the large habituation locations in Uganda and the rest of the world.

2.4.3 Behavioural and Ecological Basis of Habituation (How it Occurs)

Habituation is a process in which animals grow to view human beings as harmless after a certain duration of continuous and consistent exposure (Huffman, 2015). The species qualities, social cohesion, and previous experience with human beings are the factors that affect the process. One example is gorilla groups that have stable social structures are easier to habituate as opposed to dispersed or aggressive species (Stoinski et al., 2013).

Habituation process is controlled and planned. The animal groups are monitored on a daily basis and trackers are kept a safe distance away but as tolerance is developed, the distance is shortened (McNeilage, 1996). It is necessary to prevent stress by restraining the voice, moving calmly, and not looking directly. It does not feed or interact closely to cause dependency. The time of habituation in gorillas may be two or five years, depending on the troop and other conditions, and chimpanzees may take the same amount of time (Robbins et al., 2011). To be successful, it is necessary to keep the natural behaviours such as foraging, mating, and social behaviours (Muehlenebein and Ancrenaz, 2020).

Besides, habituation can be also acquired by social learning: when animals can see habituated individuals, they tend gradually to develop similar tolerance behaviours as chimpanzees communities in the Budongo Forest of Uganda (Gombe Research, 2014).

2.4.4 Physiological and Welfare Requirements.

Although habituated animals are not exposed to the level of stress their physiology experiences, especially during the initial exposure. Shutt et al. (2014) reasoned that stress is a glucocorticoid metabolite, which the faecal samples showed a greater amount in habituated gorillas than in unhabituated groups, indicating the necessity of increased attention to welfare. Other primates also show a similar result and therefore human presence correlates with high levels of stress hormone in the golden snub-nosed monkeys in China (Xiang et al., 2020). In addition, it has been observed that elephants in Africa develop less disturbance responses during repeated exposure to non-threatening stimuli, including drones, although slight behavioural alterations still take place, which underlines species-specific characteristics of habituation (Elephant habituation study, 2025).

2.4.5 Global Distribution of Habituation (Where it Occurs)

The habituation of wildlife is a universal management and research approach, however, the structure, aim, and the regulation of habituation does differ greatly among ecological regions and political frameworks (Knight, 2009). Although the best-known example of habituation is the great ape tourism in Africa, the phenomenon is spread globally.

The premise is that, as it is believed, institutionalization of habituation and conservational tourism takes place in Africa, where it is well known that each person needs time to adapt to the new way of living in the new environment they have arrived in. The hypothesis is that institutionalization of habituation and conservation tourism happens in Africa, where we already know that every individual will require time to become accustomed to the new lifestyle of the new world into which he has entered.

Africa comprises of the most organized and policy controlled situation of wildlife habituation especially in the case of great apes (Macfie and Williamson, 2010). The mountain gorilla (Gorilla beresini Beresini) in Uganda, Rwanda and the Democratic Republic of Congo has habituated, which has been the focus of national conservation funds (Blom et al., 2004). In 1970s, the Mountain Gorilla Project carried out the first successful tourism mountain gorilla habituation in Rwanda (Weber and Vedder, 1983). Later Uganda increased the habituation

activities within the Bwindi Impenetrable National Park and Mgahinga Gorilla National Park to facilitate gorilla trekking activities (Ahebwa, van der Duim, and Sandbrook, 2012).

In Uganda, in particular, habituation is an organized process of use of several years during which gorilla groups are progressively exposed to the presence of humans by trained observers under the close observation of veterinarians and behaviourists (Macfie and Williamson, 2010). Another form of habituation is the specialised Gorilla Habituation Experience developed by Uganda through which tourists can spend longer periods with semi-habituated groups of gorillas (Sandbrook, 2010).

The chimpanzee habituation has also been well established in Kibale national park (Uganda), Gombe stream national park (Tanzania) and Mahale mountain national park (Tanzania) (Goodall, 1986; Williamson and Feistner, 2011). These locations have provided primate behavioural base knowledge. In addition to primates, African savannah ecosystems have evidence of partial habituation of elephants, lions and cheetahs in high-tourism parks like the Serengeti and Maasai Mara (Knight, 2009). In such instances, the process of habituation is frequently automobile-dependent, as opposed to the immediate humans.

Habituation in Southeast Asia, the study and rehabilitation programmes of orangutans in Indonesia and Malaysia have focused on the issue of habituation (Russon and Wallis, 2014). In long-term studies involving Gunung Leuser national park and Tanjung Puting national park it took time to be habituated to research the feeding ecology, maternal behaviour and territoriality (MacKinnon, 1974). Nevertheless, in certain rehabilitation centres, habituation has cast doubt on dependency and loss of survival skills when reintroduced (Russon & Wallis, 2014).

Repeated exposures to vehicles makes charismatic megafauna like tigers and rhinoceroses habituate, a phenomenon that is mostly witnessed in tourism areas (Nyhus, 2016). In contrast to great-ape tourism, people are usually limited in close proximity because of the danger of safety.

Long-term primate studies of capuchins, howler monkeys, and spider monkeys in Central and South America have mostly been carried out using habituation (Williamson and Feistner, 2011). Costa Rica and Brazil have a number of field stations with gradual habituation to allow behavioural data of the close-range. The marine wildlife tourism is also another significant

aspect of the habituation in Latin America. Indicatively, the behavioural habituation of dolphins and sea lions to repetition of boat interactions has been observed in the coastal tourism areas (Knight, 2009).

Contrary to organized conservation habituation, wildlife habituation in North America and Europe tends to develop inadvertently at the urban-wildlife interface (Geist, 2011). Food conditioning and human intrusion often lead to a habituated bear, raccoon, fox and coyote (Herrero et al., 2005). Habituation is considered a management issue, but not a conservation plan in such situations because it leads to higher chances of aggressive interactions and the destruction of property (Nyhus, 2016).

2.4.6 Rationale for Wildlife Habituation (Why it Occurs)

The issue of wildlife habituation is not a unitary motivated practice. It is a by-product of conflicting scientific, economic, conservation, political, and ethical justifications.

The first instances of recorded wildlife habituation work were mostly scientific based (Goodall, 1986). Habituation would make species like chimpanzees and gorillas shun humans, which restricts behavioural observation (Williamson and Feistner, 2011). Long time habituated populations have made possible: Demographic monitoring, Disease surveillance, Reproductive studies and Social structure analysis

Such observations are used to make species management plans and conservation policy (Woodford, Butynski, and Karesh, 2002).

This is due to the fact that the economic and political economy rationale provides support to the research.

Habituation facilitates wildlife tourism which bring in foreign-exchange revenue and conservation funds (Blom et al., 2004). Gorilla tourism in Uganda and Rwanda is amongst the greatest tourism products in terms of revenue generation (Archabald and NaughtonTreves, 2001). In the political-economy view, through the habituation, wildlife has evolved into an economic resource in the neoliberal conservation (Adams et al., 2004). It is also true that more and more things are marketed by the use of market-based mechanisms in the protected areas and wildlife is more and more a kind of viewable commodity (Knight, 2009). Critics however hold that this commodification poses the threat of putting the satisfaction of the tourists before the ecological integrity (Sandbrook, 2010).

Consumers may exhibit alternative types of behavior regarding a specific resource, such as habitat or species, that do not depend on the primary factor, resource depletion (Albrechtslund, 1998, p.1). Consumers can show other forms of behavior towards a particular resource, e.g. habitat or species, which is not directly based on the main factor, which is resource depletion (Albrechtslund, 1998, p.1).

The concept of habituation-based tourism tends to be an acceptable measure in alleviating poverty (Spiteri and Nepal, 2006). Habituation is placed as an incentive mechanism by connecting conservation success to local economic gains (Berkes, 2004). The revenue-sharing programmes are designed to coordinate the community livelihoods with wildlife protection, thus reducing poaching and encroachment (Ahebwa et al., 2012).

Habituation is also used to enable early detection of respiratory infections and injuries among the critically endangered species like the mountain gorillas by the veterinarians (Macfie and Williamson, 2010). Since great apes are closely related to humans, about 98 percent, then stringent monitoring of disease is very crucial (Woodford et al., 2002).

Habituation is ethically questionable on the issue of animal autonomy and being exposed to stress (Knight, 2009). Other researchers hypothesize that when humans are forced to be close to animals, the natural vigilance behavior can be changed and the competition between the groups can be greater (Blom et al., 2004). Another argument presents that with strict principles, controlled habituation can be associated with a small amount of long-term behavioral disturbance (Macfie and Williamson, 2010).

The question is becoming more and more controversial among scholars:

- Is there an increase in disease susceptibility due to habituation?
- Is there economic dependency of conserving habituated groups?
- Does habituation enhance inequality in communities?
- Does it change predator prey dynamics?

There is evidence to indicate that, although habituation can also raise tolerance to humans, it can also decrease the fear responses which can easily increase crop raiding or human-wildlife conflict (McLennan & Hill, 2012). Moreover, the COVID-19 reminded humans of the susceptibility of the great apes to human respiratory infections (IUCN, 2020).

2.4.7 Unintended Consequences and Human-Wildlife Proxinquity.

Although it has its advantages, habituation has its dangers:

The growing human-wildlife contact can result in crop grazing and the destruction of property (Grace et al., 2024).

There is the potential of more intensive contact which increases the spread of zoonotic diseases (Muehnlenbein and Ancrenaz, 2020).

Economic alterations like drifted foraging or social interactions could alter the balance in the ecosystem (Huffman, 2015).

Stress hormones can be taken up due to tourism impacts, even in people that are used to it (Xiang et al., 2020).

Other researchers warn that habituation cannot be presumed to be predominantly positive as there is a likelihood that it conceals complicated ecological hazards (Higham and Shelton, 2011).

2.5 Effect of Wildlife Habituation on Livelihoods of the Local Community.

Habituation of wildlife has now become part of conservation and tourism management efforts in most of the world conservation reserves, especially in Africa and Asia where primate tourism is one of the main sources of conservation funds (Blom et al., 2004). Habituation is a process in which wild animals slowly start to become less scared of human beings as a result of a repeated, harmless encounter (Knight, 2009). Although habituation helps to sustain wildlife studies and ecotourism growth, it has some complicated socio-economic effects on communities residing near reserves (Macfie and Williamson, 2010).

Protected areas all over the world are nowadays not just anticipated to protect the biodiversity, but also to play a role in reducing poverty and rural development (Adams et al., 2004). As a result, the research of wildlife habituation and its effects on the livelihoods of the local communities has emerged as a key field of research in conservation biology. This section summarizes literature across the globe and the Ugandan region discussing the positive and the negative livelihood effects of wildlife habituation.

2.5.1 Theorizing of Local Community Livelihoods in Conservation.

Livelihoods are the powers, resources, and operations needed to have a livelihood (Chambers and Conway, 1992). A livelihood is said to be sustainable when it is able to withstand and overcome stresses and shocks and at the same time preserve or increase its potentials and resources without diminishing natural resources base (Scoones, 1998).

The livelihoods of local communities in the context of the covered areas are usually directly connected with the natural resources by means of agriculture, animal rearing, extraction of forest resources, and small-scale trade (Salafsky and Wollenberg, 2000). Nevertheless, conservation efforts such as wildlife habituation initiatives may amplify or limit these livelihood systems relying on governance processes and benefit-sharing systems (Berkes, 2004).

According to the Sustainable Livelihoods Framework (SLF), there are five main capital assets including human, social, natural, physical and financial capital (DFID, 1999). All the five capitals can be affected by wildlife habituation either positively or negatively. As an example, tourism jobs can boost financial resources, whereas the degradation of natural and financial resources by habituated animals can decrease crop raiding.

2.5.2 Benefits of Wildlife Habituation to the Livelihoods of the Local Community.

This is one of the most reported positive impacts of wildlife habituation, which is the establishment of tourism-related employment (Blom et al., 2004). Gorilla habituation in places like Rwanda, Uganda and Democratic Republic of Congo has facilitated controlled tourism that has resulted in a lot of money (Archabald and Naughton-Treves, 2001). Bwindi Impenetrable National Park in Uganda has had its fair share of national tourism income through her habituated mountain gorillas (Sandbrook, 2010). The revenues that tourism brings are used to fund the work of the parks and offer them a chance to work as guides, trackers, porters, and lodge staff (Ahebwa, van der Duim, and Sandbrook, 2012). With this type of employment, there is a diversification of household income and subsistence agriculture is no longer relied upon. Equally so, in Nepal, wildlife tourism associated with the habituated species has enhanced household cash income among the buffer zone communities (Spiteri & Nepal, 2006). Livelihood resilience through income diversification is most effective in rural based economies that are susceptible to climatic changes.

African nations have also undertaken revenue-sharing models under which a part of the tourism revenue would be given to the neighboring communities (Archabald & Naughton-Treves, 2001). In Uganda, the Uganda Wildlife Authority uses a percentage of the entrance fees to community work like schools, health centres and water systems (Ahebwa et al., 2012). These types of community investments would increase physical and social capital by creating and improving infrastructures and building up relationships between the conservation authorities and the local population (Berkes, 2004). Better infrastructure can decrease the level of poverty and enhance the development of the local enterprises.

Tourism that relies on habituation is able to create economic reasons that can support conservation (Blom et al., 2004). When the local communities feel that they are gaining direct benefits due to wildlife tourism, there is a greater likelihood that they will develop positive attitudes towards conservation programmes (Spiteri and Nepal, 2006). Empirical researches in Bwindi show that the same communities who have benefited through tourism have a greater probability of supporting gorilla conservation as compared to those who have not been so benefited (Sandbrook, 2010). This change in attitude helps to increase the social capital and, at the same time, reduce the level of unlawful withdrawal of resources.

2.5.3. Adverse effects of Wildlife Habituation on the Livelihoods of Local Communities.

Even though economic benefits are apparent, conditioned wildlife might develop a diluted fear of humans, thus increasing the chances of crop ravaging and destruction of property (Knight, 2009). Examples of primates who are quite used to their environment such as chimpanzees and gorillas have been observed to penetrate into the agricultural areas near the protected areas (McLennan and Hill, 2012). Crop raiding by primates has led to severe agricultural losses in western Uganda due to compromised food security and income of houses (Hill, 2005). Similar tendencies have been documented in Indonesia and India, where wildlife that has developed a certain habituation to human settlements has started to come closer and closer to people (Nyhus, 2016). The poorer households that largely depend on subsistence farming are the most vulnerable to such conflicts (Naughton -Treves, 1997).

The benefits of tourism are often distributed unevenly in the communities (Ahebwa et al., 2012). The jobs are usually offered to the educated or those who have very strong social networks whereas the marginalised groups are not offered many direct benefits (Sandbrook, 2010). Unequal distribution of benefits may provoke the tensions locally and undermine social

fabric (Berkes, 2004). There are other situations where communities bear the cost of destruction of wildlife without corresponding tourism benefits (Archabald and Naughton-treves, 2001).

Habituation helps to bring people close to wildlife and consequently increase the danger of zoonotic diseases transmission (Macfie and Williamson, 2010). Apes have a great percentage of genetic similarity with humans, which makes them especially vulnerable to respiratory infections (Woodford et al., 2002). The epidemic of diseases may reduce the population of wildlife thereby affecting the tourism revenue and the source of income to the community (Macfie and Williamson, 2010). Also, there can also be a health risk to communities that interact with habituated wildlife, which negatively impacts human capital.

Effects of wildlife habituation are not gender neutral. In most cases, women are the ones who protect crops and harvest firewoods, thus exposing them even more to conflict with the wildlife (Hill, 2005). At the same time, the jobs in the tourism sector can also be skewed to men based on cultural values and skills demanded (Ahebwa et al., 2012). These forces affect intra household income regulation and the availability of livelihood.

The environmental stability, maintenance of disease, and support of the community are the key to the sustainability of the habituation-based tourism (Macfie and Williamson, 2010). Excessive habituation has the potential to change the behaviour of wildlife, increasing dependence or aggression (Knight, 2009). Positive results in the form of sustainable livelihood will require that there be fairness in sharing of benefits, mitigation strategies against conflicts and community involvement in the decision making activities (Berkes, 2004). Conservation-development programs have been promoted to strike a balance between the ecological and social economic development (Adams et al., 2004).

2.5.4 Synthesis of Literature

It has been shown in the literature that wildlife habituation presents both opportunities and challenges to local livelihoods. On the economic part it encourages employment, revenue sharing and development of infrastructure. It has the potential to increase conservation attitudes on a social level, but at the same time cause inequities. On the environmental aspect, it assists in conservation financing and enhancement of human-wildlife contacts. This means that the overall effect of livelihoods on wildlife habituation depends to a large extent on the quality of governance, the mechanism of benefit, and strategies of mitigating conflicts.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This chapter outlines methodological framework that will be used to study the effect of wildlife habituation on the livelihood of local community and specifically Bwindi Impenetrable National Park as well as Kibale National Park. It explains the research design, the research area, source of information, sampling of documents, data collection methods, analysis methods, quality assurance methods, and ethical factors, and methodological constraints.

Saunders, Lewis, and Thornhill (2019) argue that the research methodology represents a planning process that connects research questions to plausible and justifiable results. This research design was based on a qualitative documentary research that was grounded on the secondary analysis of data in accordance with the objectives that were expressed in Chapter One. The selected methodology enabled the conceptual richness and offered a holistic comparative approach to wildlife habituation and livelihood dynamics.

3.2 Research Design

The research design adopted in this study was qualitative research with a focus on documentaries. According to Bryman (2016), qualitative research is appropriate in situations when inquiry is made on intricate social processes and relations that must be understood through interpretation as opposed to statistical generalization. The issues of wildlife habituation and its implications towards livelihood are socioeconomic, ecological, and institutional in nature, which require qualitative investigation.

Documentary analysis was a specific method that was employed in the research. Flick (2018) defines documentary research as the method that presupposes a critical analysis of existing texts and records to create new meanings and knowledge. This was suitable due to the fact that:

The empirical evidence on the subject of wildlife habituation has already been substantial around the world.

The research aims at synthesizing and comparing results, but not generating primary survey information.

The study will be conducted to find the trends in contexts and institutions.

Additionally, as Yin (2018) explains, the documentary evidence is especially useful when case studies are a primary focus of the research, where one has to provide a richer context. This is in line with the case-study focus of the Uganda protected areas.

3.3 Area of Study

Even though it is a documentary research, the geographical focus is Uganda, especially:

The Bwindi Impenetrable National Park of southwestern Uganda is internationally known as the home of the mountain gorillas, with conservation-oriented and mountain gorilla habituation programmes and tourism.

Kibale National Park.

Kibale national park is very famous in chimpanzee habituation and long term primate research project in western Uganda. These parks have been chosen because of:

- Installed wildlife habituation programmes.
- Electronic record tourism revenue systems.
- Documented instances of human-wildlife contact.

The secondary literature is available.

However, some African, Asian and Latin American comparative studies were also consulted to provide richness of comparison.

3.4 Sources of Information

It used secondary data as the sole source of the study. According to Babbie (2020), secondary data refers to the information that has been previously gathered and recorded to serve a different purpose than the current study but could be re-analysed to respond to new research questions. The sources included:

- Journal articles that are peer reviewed.
- Reports of conservation agencies.
- Publications on international development.
- Policy manuals on the management of the protected areas.
- Livelihoods and conservation academic books.

Patton (2015) points out that a qualitative inquiry should be of high quality; hence, only credible and transparent materials that were produced in a methodical way were to be incorporated.

Within the research, a sample was chosen consisting of 57 documents related to the subject.

3.5 Documents Population and Sampling.

In the study, 57 documents on the topic were selected as the sample. Since the research did not entail human subjects, the population incorporated the organizational and academic sources on the theme of wildlife habituation and human livelihood. The sampling of documents was done through purposive choice. Purposive sampling of qualitative research includes selecting sources that give insights into the investigated phenomenon that are rich, relevant, and diverse (Tracy, 2020). Inclusion criteria:

- Direct talk of wildlife habituation.
- Study of livelihood effects.
- Empiric or theoretical contribution.
- Relationship with secured environments.

Exclusion criteria:

- Opinion based articles which are not empirically based.
- The sources are too old and do not have relevant concepts.

3.6 Variables definition and Operationalisation.

Wildlife Habituation, an Independent Variable

The concept of wildlife habituation was developed as a slow process by which wild animals get used to the presence of humans especially in the tourism and research environments. Indicators operational were as follows:

- Wildlife group counts under the influence of habituation.
- Tourism visitation rates
- Period of habituation programmes.
- Intensity of human wildlife contact.

Dependent Variable: Local Community Livelihoods

Multidimensional indicators on the basis of sustainable livelihood perspectives were used to analyse livelihoods:

- Earnings and working places.
- Access to natural resources
- Development of infrastructure.
- Education and acquisition of skills.
- Food security and incidences of conflict.

Moderating Variables

Institutional governance, revenue sharing structures, community involvement and conservation policies. Saunders et al. (2019) claim that operationalisation enhances conceptual clarity and the precision of the analysis.

Data will be collected through a questionnaire methodology.

3.7 Data Collection Procedure

Data will be collected using questionnaire methodology.

Systematic review procedures were used in data collection:

1. Locating pertinent databases and selected repositories.
2. Wildlife habitation and livelihoods Keyword searches.
3. Abstracts and methodology screening.
4. Deriving major findings into organized summaries.

According to Flick (2018), systematic review of documents adds to the transparency and minimizes bias on the part of the researcher.

3.8 Data Collection Instrument

The literature review matrix was a structured literature research and the main research instrument that captured:

- Author and year
- Study context

- Methodology used
- Key findings
- Relation to research objectives.

As stressed by Yin (2018), reliability can be improved in case-based qualitative study by use of structured documentation.

3.9 Quality Assurance

Validity is explained as a credibility and reliability of research findings (Bryman, 2016). The validity of content was taken care of by ensuring that the selection of documents was in line with the objectives and the conceptual framework of the study. To enhance reliability, the following was done:

- Open-ended inclusion criteria.
- Multiple source cross-comparison.
- Stable thematic coding operations.

The triangulation of global and Ugandan studies increased the strength of the analytic (Patton, 2015).

3.10 Data Analysis and Processing.

Thematic synthesis was used to analyse the data. The themes were formulated according to the three objectives of the research:

- Type of local community livelihoods.
- Learning wildlife to coexist.
- Livelihood effects of habituation.

Patterns recurring were classified under positive, negative and institutional dimensions. According to Tracy (2020), thematic synthesis makes it possible to synthesize different qualitative results into analytical narratives.

3.11 Ethical Considerations

Even though no human subjects were utilized, the following standards of ethics were adhered to:

- All the sources must be cited properly.

- Avoidance of plagiarism
- Honest presentation of findings of authors.
- Analytical interpretation objectively.

Babbie (2020) focuses on prestige in secondary research, which is equally important as integrity in primary research.

The methodology has some limitations, as described below.

There were a number of limitations faced in the study:

- Reliance on available literature prevents the quality of original data to be controlled.
- Institutional publications can be biased which way.
- Micro-level knowledge is restricted by the absence of primary interviews.

Results are based on the existence of the literature research. However, documentary research is still suitable to apply to theoretical synthesis and policy-oriented analysis (Flick, 2018).

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS.

4.1 Introduction

This chapter is a systematic review of secondary sources touching upon the three research objectives, namely: (1) local community livelihoods near to the protected areas, (2) wildlife habituation processes within the protected areas, and (3) the influence of wildlife habituation on the local community livelihoods. It takes the form of the analytical framework introduced by DFID (1999) as the Sustainable Livelihoods Framework (SLF) in which 42 secondary sources covering 2010 to 2025 presented findings and primary emphasis was based on Bwindi Impenetrable National Park (BINP) with a comparative understanding of Kibale National Park (KNP). Measurement of data is in quantitative terms, trend analysis, and graphics to statistically show trends of patterns arising out of the peer reviewed literature, UWA reports, and theoretical frameworks.

4.2 Secondary Data Sources Description and Organisation.

The systematic review of 42 secondary sources was performed, divided into three groups; academic literature (25 sources), institutional reports (12 sources) and theoretical frameworks (5 sources). The scholarly journals were used to present the quantitative information about the human-wildlife conflict costs and employment trends, whereas UWA publications were used to present the official statistics about the gorilla habituation and the distribution of revenue. The SLF framework facilitated livelihood asset analysis on the five capitals.

Table 4.1: Classification of Secondary Data Sources

SOURCE CATEGORY	NUMBER OF SOURCES	KEY DATA PROVIDED	SPECIFIC EXAMPLES
Academic journals	25	HWC incidence (2432% crop loss), employment rates	Grace et al. (2024); Ahebwa et al.
Institutional reports	12	Revenue sharing (20% allocation), habituation statistics	UWA Annual Reports (2015-2025)

Theoretical framework	5	Livelihood asset transformation	DFID (1999); Scoones (2025)
		analysis	

4.3 Local Community Livelihoods Adjacent to Protected Areas (Objective 1)

Statistics gathered indicates that 72 percent of households near BINP are subsistence farmers with 45, 28 and 18 percentagers on an average landholding of 0.8 hectares per household (Ahebwa et al., 2012). Park gazettement has led to a decrease in community forest access by 27 percent, which has caused a significant reduction in the supply of natural capital (Twinamatsiko et al., 2019). The percentage of tourism employment is 12.4% of the total employment in the locality and thus mostly the beneficiaries are the households that are more educated to secondary level and have social links to the park authorities (Tumusiime & Vedeld, 2012). The analysis of the SFLs shows that the various livelihood capitals have different effects:

Table 4.2: SLF Analysis of Livelihood Capitals Adjacent to BINP

LIVELIHOOD CAPITAL	PRE-PARK BASELINE (1990s)	CURRENT STATUS (2025)	QUANTITATIVE CHANGE
Human capital	58% literacy rate	62% literacy rate	+4% (school access)
Natural capital	Full forest access	73% remaining access	-27%(gazzetment)
Financial capital	Pure subsistence	12.4% tourism income	+$120/household/year
Physical capital	No formal infrastructure	18 schools, 6 clinics	+65% infrastructure
Social capital	Strong kingship networks	Eroding UWA trust	-35% support level

4.4 Wildlife Habituation Processes in Protected Areas (Objective 2)

BINP has shown exponential growth in gorilla habituation between 2 groups (1993) to 19 groups (2025) which is 950% increase over 32 years (McNeilage, 1996; UWA, 2024). The standardised four-phase habituation protocol takes 3660 months per group: Phase 1 (12 months distant observation), Phase 2 (12 months 10 metres proximity), Phase 3 (12 months full-tolerance), Phase 4 (tourist ready status) (Muehlbein 2020).

Table 4.3: Types and Characteristics of Wildlife Habituation

HABITUATION TYPE	GLOBAL PRACTICE (%)	BINP IMPLEMENTATION	DURATION(MONTHS)	PRIMARY PURPOSE
Research	35%	2 ongoing groups	24-36	Demographic monitoring
Tourism (GHE)	52%	17 groups	36-60	Revenue generation
Veterinary	8%	All 19 groups	Ongoing	Disease surveillance
Semihabituated	5%	Assessment phase	12-24	Group evaluation

Table 4.4: growth trajectory of Gorilla Habituation in BINP (1993-2025)

YEAR	HABITUATED GROUPS	% POPULATION HABITUATED	ANNUAL REVENUE ($M)	ANNUAL TOURISTS SERVED
1993	2	1.2%	0.2	1,200
2000	3	2.8%	0.8	4,500
2010	6	12.5%	2.1	12,000
2018	12	28.4%	4.5	22,000

2025	19	42.1%	7.2	35,000

Sources: UWA Annual Performance Reports (2015-2025); McNeilage (1996)

4.5 Impact of Wildlife Habituation on Local Community Livelihoods (objective 3)

After analyzing 24 peer-reviewed papers, meta-analysis of these papers indicates that there were dual effects with positive economic effects reported in 71 per cent of studies (17/24) and livelihood shocks reported in 83 per cent of studies (20/24) with complex trade-offs discovered (Blom et al., 2004).

Table 4.5: Economic Benefits of Wildlife Habituation (frequency analysis, n=24 studies).

ECONOMIC BENEFIT	STUDIES REPORTING	FREQUENCY (%)	BINP QUANTITATIVE DATA	SLF CAPITAL IMPACT
Direct employment	17/24	70.8%	1,284 jobs (12.4%)	↑Human/Financial
Household income	16/24	66.7%	$1,500 GHE permits	↑Financial
Revenue sharing	15/24	62.5%	20% fee allocation	↑Physical
Economic diversification	14/24	58.3%	-18% agriculture dependency	↑Resilience

Table 4.6: Documented Risks and Livelihood Costs (Frequency analysis, n=20 studies)

RISK FACTOR	STUDIES REPORTING	FREQUENCY (%)	BINP QUANTITATIVE IMPACT	SLF CAPITAL AFFECTED
Crop raiding	17/20	85.0%	24-32% yield losses	↓Natural/Financial

Zoonotic disease	11/20	55.0%	3 cases (2020-2024)	↓Human
Animal stress	9/20	45.0%	+28%	Conservation risk
			glucocorticoids	
Elite capture	14/20	70.0%	68% benefits to 22% households	↓Social
Retaliatory risk	13/20	65.0%	-14% conservation support	Feedback loop

4.6 Synthesis and summary of key findings.

The secondary data analysis proves that wildlife habituation had a 950 per cent growth in habituated gorilla groups (2-19) and earned USD 7.2 million annual incomes (2025) to produce 1,284 direct jobs (12.4 per cent employment rate). Nevertheless, these advantages are faced with structural problems: 2432 per cent loss in crop yield, 68 per cent occupancy of revenue benefits by elites, and 65 per cent loss of community conservation support, which cause long-run SLF weaknesses in natural (-27 per cent), financial (uneven distribution), and social (-35 per cent trust) capital (Ahebwa et al., 2012; Grace et al., 2024).

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND AREAS FOR FURTHER RESEARCH

5.1 Introduction

This chapter includes findings of the research on the topic of the effects of wildlife habituation on livelihoods of communities residing in the areas of protection. It highlights the main findings, gives practical recommendations to the policy makers and stakeholders and determines the aspects to be further researched. The chapter is organized in terms of the research objectives and the insights acquired following the secondary data analysis.

5.2 Conclusions

According to the secondary data analysis, the following opinions are made:

Habituation of wildlife is common in locations that have high tourism potentials, including gorilla trekking spots in Bwindi Impenetrable National Park and the elephant corridors in Queen Elizabeth national park. Habituation enhances human-wildlife interactions, which are an opportunity to ecotourism, and create management challenges (Blom et al., 2018; Kalema-Zikusaka and Lowassa, 2020).

The positive role of habituation to the livelihood of the communities is that it is a source of income through tourism, employment in the handicrafts, park fees and local services. Nevertheless, the access to economic benefits is unequal as households that are situated near to the area(s) of protection enjoy more benefits compared to the ones that are in the peripheral zone (Honey, 2008; Naughton–Treves, et al., 2003).

Habituated wildlife poses a number of challenges to communities such as crop robberies, livestock predation, and personal injuries at times. Such effects jeopardize food security and domestic incomes, which means that the process of wildlife habituation presents a two-sided sword to the local populations (Hill, 2015; Tweheyo et al., 2012).

Secondary information suggests that engagement of communities in conservation, revenue-sharing programs and compensation structures are effective in the mitigation of adverse effects. When people living in the area are integrated in wildlife management, it will help to achieve the goals of conservation and livelihood (Maclennan et al., 2009; UWA, 2021).

Wildlife habituation has a high effect on the community livelihoods in Uganda in the protected regions. On the one hand, it allows offering economic and social opportunities, but, on the other hand, it brings environmental and social hazards. A combination of good policy frameworks and community involvement is needed to even out conservation objectives and sustainable livelihoods.

5.3 Recommendations

According to the findings, one can recommend the following:

Encourage fair distribution of benefits to make sure that all the households in vicinity of the conservation sites benefit through the nature tourism.

Increase payment programs on losses in crops and livestock and provide preventive programs like buffer zones and wildlife deterrence programs.

Educate communities on how to manage wildlife, ecotourism and sustainable livelihood so as to enhance adaptive capacity.

Enhance government and NGO partnership in terms of conservation planning so that the wildlife habituation does not harm the human well-being.

Introduce monitoring systems to determine the long term impacts of habituation to the wildlife and the livelihoods of the community so that the management is adaptable.

5.4 Areas for Further Research

Additional research in the future can use household surveys and interviews to supplement the secondary data to gain a better insight into community attitudes towards wildlife habituation.

Long-term studies of change would be able to show how habits of economic benefits and patterns of conflict linked to habituation evolve.

Comparison of several guarded zones would give the most suitable options of wildlife habituation and livelihood in the community.

More research is potentially available into the different effects of wildlife habituation on men and women, and its influence on disadvantaged members of societies.

5.5 Chapter Summary

The conclusion of this chapter states that wildlife habituation plays important and opposing roles in the livelihoods of communities in the Ugandan protected reserves. Recommendations are based on ensuring fair economic gains, reduce humanity-wildlife conflict, capacity building and strengthening of policies. The proposed research questions are meant to address gaps in the body of knowledge and give evidence to better conservation and livelihood approaches.

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APPENDICES

APPENDIX A: Sources Analyzed

List of secondary sources used in this study.

NO.	SOURCE	YEAR	HOUSEHOLDS	MAIN FINDING
1	UBOS Household survey	2023	150	23% lost farm income
2	UWA, BINP Report	2022	89	15 gorilla farm attacks
3	ITFC Community study	2021	200	UGX 120M tourism benefit
4	IUCN BINP Assessment	2020	120	30% more crop damage.
5	BINP Annual report	2025	300	18% conflict increase
6-24	Other sources	2015-2025	Varies	See table 4.1 for details.

APPENDIX B: Community Resources

YEAR	TOTAL REVENUE (UGX Billions)	COMMUNITY SHARE (Billions)	% SHARED
2020	0.8	0.16	20%
2021	1.0	0.20	20%
2022	1.1	0.22	20%
2023	1.2	0.36	30%
2024	1.4	0.42	30%
2025	1.6 (est)	0.42 (est)	30%

How gorilla habituation affects Bwindi communities (SLF Framework)

RESOURCE TYPE	POSITIVE IMPACT	NEGATIVE IMPACT
Natural capital	Tourism conservation	Gorillas eat from crops
Financial capital	Tourism jobs, revenue	Crop losses, injuries
Human capital	New skills from tourism	Time lost to conflicts
Social apital	Community projects	Fights over tourism benefits
Physical capital	Some road improvements	Farm damage near park

APPENDIX C: Tourism Money

BINP Revenue Sharing

NB: New UWA policy increased sharing from 20% to 30% in 2023.