





The management of mountain gorilla tourism in Uganda: Are the socio-economic benefits realised?



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Despite being endangered, the mountain gorilla (*gorilla beringei beringei*) is inextricably linked to tourism. With only 1069 primates globally, expanded conservation initiatives need to be extended to allow for continuous and sustainable benefits from gorilla tourism. This unique tourism niche has positively changed the economies of Uganda, Rwanda and the Democratic Republic of Congo (DRC), where they are endemic. Vast opportunities emanate from the management and conservation of the great apes (e.g. poverty alleviation, economic growth, etc.). The study examined the management of mountain gorilla tourism and its socio-economic contribution to selected stakeholders in Butogota, a rural community next to the Bwindi Impenetrable National Park (BINP). To achieve this, structured face-to-face interviews were conducted with six stakeholder groups. In order to gather samples for the study, convenience sampling and snowball sampling were used. Data were collected using an interviewer-administered questionnaire and analysed with the help of the constant comparative method. Key findings show that mountain gorilla tourism activities benefit people in a number of ways, including job creation, entrepreneurial opportunities and expanded local infrastructure. The study highlights key imperatives for the effective management of mountain gorilla tourism, including developing infrastructure, investment in training, empowerment of locals, controlled access, and more conservation and dealing with the persistent corruption problem.

Keywords: mountain gorilla; conservation; gorilla tourism; primate; Bwindi Impenetrable National Park.

Introduction

The mountain gorilla (*gorilla beringei beringei*), which is one of the two subspecies of the eastern gorilla, has been classified by the International Union for Conservation of Nature (IUCN)'s Red List of Threatened Species™ as 'Critically Endangered' for more than two decades.^{1,2} Their numbers once plummeted to just below 680 individuals, which led to extensive efforts to conserve and protect this mammal species.^{3,4,5} Following the last census of the mountain gorillas conducted in 2018, it was revealed that the numbers have grown to 1069 individuals.^{4,6} This population growth resulted in the mountain primates getting downlisted to 'Endangered' species.^{2,3} However, the mountain gorilla continues to be threatened, thus requiring more intensive conservation effort, including widespread anti-poaching programs such as removing snares set up by poachers, more patrols and close collaboration with communities to support these programs.^{7,8,9}

Mountain gorillas are endemic to only three African countries, which are the Democratic Republic of Congo (DRC), Rwanda and Uganda.¹⁰ These countries are rich in fauna and flora and share boundaries with some of their protected areas (PAs) extending into each other.¹¹ Half of the region's mountain gorilla population is found in the Virunga Massif, a massive area of approximately 451 km² straddling the borders of Uganda, DRC and Rwanda. It, thus, necessitated the need for a well-coordinated joint effort in managing this tri-national environment, especially the designated PAs (Mgahinga Gorilla National Park, Volcanoes National Park [Parc National des Volcans] and Virunga National Park). The remaining half of the subpopulation of the mountain gorilla is found in an area measuring 331 km² in south-western Uganda in the Bwindi Impenetrable National Park (BINP).² This tourism product (mountain gorilla) has become the leading tourism asset for these countries and presents vast opportunities for economic growth, poverty alleviation and conservation.

Uganda's Bwindi forest has afforded opportunities for ecotourism and economic growth through mountain gorilla tourism. Gorilla-viewing or trekking tourism involves tourists visiting the great apes in their natural habitation.^{11,12} These tourists engage in this type of tourism for various reasons, including having an emotional connection with the gorillas as they are 'human's closest

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living relatives ...' with close genetic markers,¹³ a desire to be close to the apes, capture authentic experiences as well as interact with the environment amongst other motives.¹⁴ Mountain gorilla tourism activities have benefited the country by protecting the primates that continue to be threatened by human activities.¹⁵ More benefits from gorilla conservation activities can be achieved when there is support from the local community.

The current study examined the management of mountain gorilla tourism and its socio-economic contribution to selected stakeholders in Butogota, a rural community located next to BINP in Uganda. The article starts by delving into the Bwindi forest and presents relevant literature, offering a discussion of the impact of mountain gorilla tourism on communities. It also highlights the management strategies for monitoring mountain gorilla tourism. The article goes on to provide the research design and methodology for the study. The results are then discussed and elaborated, and finally, the conclusions and recommendations drawn from the study's findings are presented.

Literature review

Bwindi Impenetrable National Park

The BINP is one of the world's oldest, most complex and biologically diverse ecosystems.¹⁶ The densely forested park or the 'impenetrable forest' also known as the 'The Place of Darkness' – resides approximately half of the world's gorilla population, which makes it one of the most important conservation areas.¹⁷ Because of the extensive biodiversity and because several endangered species call this area home, it was named a UNESCO World Heritage Site.¹⁸ In 1991, the Ugandan government designated BINP as a national park, and this gave it extraordinary attention in terms of conservation and protection of wildlife.¹⁹ The decision to gazette Bwindi as a national park was made in order to safeguard mountain gorillas and their natural habitat.

Prior to the gazettement of Bwindi to a National Park, rampant uncontrolled human activities (e.g. settlement, logging, hunting, gold mining/panning, honey harvesting, pit sawing, etc.) within the forest threatened biodiversity, thus prompting authorities to strengthen conservation efforts.²⁰ During that time, forest resources were critical for local livelihoods. There was, therefore, a need for quick transformation from the nomadic lifestyle and sole reliance from the forest to subsistence farming which was new to many.²⁰ The conservation and control measures were not favoured by communities who had lived in the forest for several years. This resulted in numerous conflicts between authorities (park managers) and locals, and in some cases, the park was deliberately set on fire, leading to approximately 5% of the PA being destroyed.^{21,22} Bitariho et al.²³ noted that some locals expressed their dissatisfaction with the park by occasionally harassing park rangers. It took quite some time and effort for locals to understand the importance of conservation, as well as the contribution of the park to improving lives,

growing the economy and presenting opportunities. However, through the local empowerment initiatives such as extensive awareness campaigns on how the parks and humans could co-exist assisted in alleviating the conflicts.

Strategies for managing mountain gorilla tourism

When it comes to dealing with the disputes that arise between the park and the locals, the Uganda Wildlife Authority (UWA) came up with strategies to ensure that community members benefit from the PA.²¹ Amongst these strategies were the development of tourism, the introduction of the revenue sharing initiative, the provision of law enforcement throughout the park and agricultural interventions.¹⁹ In addition, the Integrated Conservation and Development (ICD) strategy was adopted to help resolve conflicts between the park management and the disenfranchised people.²² Most of the interventions and strategies were targeted at involving locals to appreciate the benefits of conservation. Community involvement is interpreted from the benefits received by the community, but it is also the reinforcement required for the sustainability of tourism initiatives.^{24,25}

Benefits of mountain gorilla tourism on communities

The unique mountain gorilla tourism tends to create several benefits to the host communities.^{12,26} Amongst the benefits of gorilla tourism are job creation,^{27,28,29} development of infrastructure,³⁰ improved living conditions,¹⁰ opportunities for business,²⁸ poverty reduction^{27,28} and an installation of community pride, amongst other benefits.^{31,32} However, Yanes et al.³¹ submit that social ills such as crime and prostitution cannot also be ruled out where tourism takes place, which can interfere with the cultural values of the local community.

The revenue-sharing scheme has also benefited several communities surrounding most national parks.³³ A portion of the park fees is injected into the local community to support projects, thereby allowing locals to consider the park as one of their own.²⁶ Some of the projects that have been supported range from those aimed at protecting the environment, water and sanitation, education, health care, infrastructure to other income-generating activities.³⁴

Theoretical frameworks

The Stakeholder Theory (ST) and Social Exchange Theory (SET) contextualise and guide the current study. The successful management of natural resources usually involves many stakeholders who may have a varying degree of interest. For an exchange to happen, there should be a mutual agreement between the stakeholders, thus necessitating the need to adopt two frameworks, the ST and SET to aid the understanding of the management strategies for monitoring gorilla tourism. The ST developed by Freeman³⁵ is grounded on the basis that every entity has stakeholders that need to be managed in a certain way.³⁶ Stakeholders are described as individuals or organisations that can influence or are influenced by the

operations of an organisation.^{35,37,38} Engaging stakeholders in developing a sustainable and competitive destination is a challenging endeavour;³⁹ however, through the stakeholder engagement process and understanding the demands of each stakeholder, a social exchange can be established. The sustainability of the destination relies on the mutual coordination of the interests of each of the stakeholders.⁴⁰ Hence, the SET is used to further the understanding of how the stakeholders develop their interests.

The SET was established by Ap⁴¹ and remains an instrumental theory in social science studies.⁴² This theory is rooted in the assumption that players or actors are involved for an exchange to occur. In this study, the exchange is between the various mentioned stakeholders and the BINP. Through a cost and benefits analysis that influences the interests of each stakeholder, one may either see the benefits from the BINP as positive or negative. However, it is essential to note that those who perceive the benefits to be negative may work against any conservation projects in the PAs. This is because they usually feel that they are not benefiting, whereas those who perceive the benefits to be positive will support tourism developments. Hence, understanding the stakeholders and the socio-economic benefits they receive on any tourism project is crucial as it determines whether they will be against or in support of the projects, which in the long run guarantees the sustainability of the tourism development. In this study, the role of each stakeholder is fundamental for the conservation of endangered gorilla tourism in BINP.

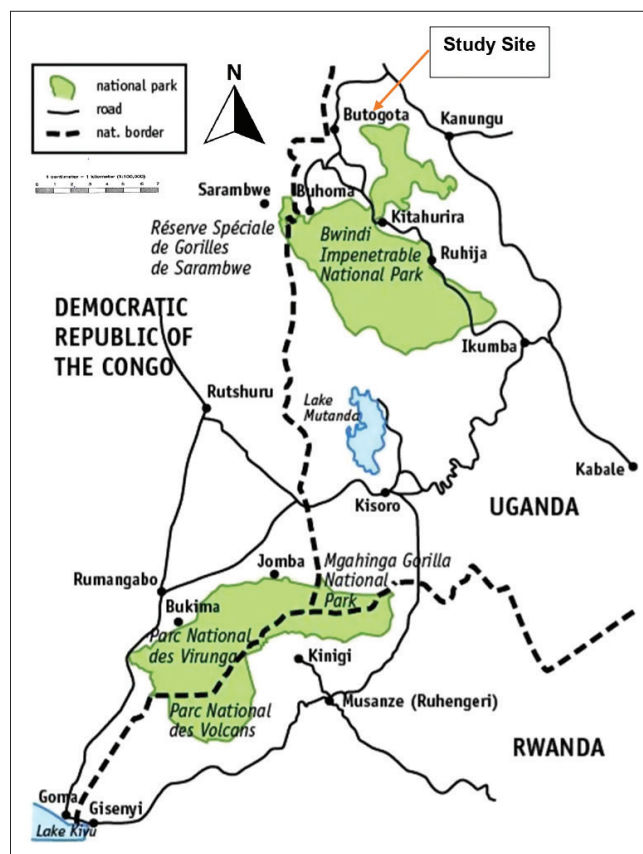
Research design and methodology

Study location and population

The study was conducted in Butogota Town Council in southwestern Uganda from January 2019 through to April 2019, near the borders of DRC and Rwanda (Figure 1). Butogota is one of the parishes in Kanungu District next to BINP. Bwindi, an Afromontane forest, with much activity from the conservation and protection of the great apes, is part of the Albertine Rift.²³ The Uganda Bureau of Statistics (UBOS)⁴³ reported that a total of 19 000 inhabitants live in the Butogota area, with almost equal ratios of male-to-female (49.7%–50.3%). The Bakiga ethnicity makes up around 80% of the population in Butogota, with about 900 members of the indigenous Batwa people.^{19,44} These groups of people initially used the forest as their homes. However, the gazetting of the forest as a national park in the early 1990s resulted in evictions that forced the Batwa tribe to resettle in agrarian communities.⁴⁵ According to UBOS,⁴³ subsistence farmers account for 37.3% of residents in the Butogota Town Council region, whilst 3.4% of residents work in the trade industry, 1.2% of residents in manufacturing, 10.3% of residents provide services and 46.3% of residents work in other occupations. According to UBOS statistics, a huge majority (72.4%) of the population in the Butogota area has only a primary school education.⁴³ The Butogota area is remote with poor infrastructure requiring government's intervention for development. Donnelly et al.⁴⁴ note that most people living in

Butogota are in rural settlements with no facilities and services such as tap water and electricity.

This exploratory and qualitative research study was conducted to identify the socio-economic contributions of mountain gorilla tourism. In addition, the study recommends the management strategies that could be adopted for a sustainable future mountain gorilla tourism development in Uganda. Face-to-face interviews were conducted with selected stakeholder groups in the Butogota area. These stakeholder groups included BINP staff, government officials, business owners, church leaders, educators and/or teachers and local leaders and/or headmen. For reporting purposes, the study participants were allocated an identifying number to help link the responses to the participating stakeholder groups (business owners – P1; religious leaders – P2; educationist and/or teachers – P3; BINP staff – P4; government officials – P5 and local leaders and/or headmen – P6) in the Butogota area. To gather the sample for the study, convenience and snowballing sampling approaches were used.⁴⁷ Members of the target population who met particular requirements, such as ease of access, availability at a specified time or willing to partake in the study, were included in the study current study that made use of non-probability sampling procedures.⁴⁷ An interviewer-administered questionnaire with open-ended questions was utilised as it permitted the interviewers to clarify questions and responses,⁴⁸ as well as allowed probing for additional



Source: Berggorilla & Regenwald Direkthilfe. Mountain Gorilla [homepage on the Internet]. 2021 [cited 2021 Aug 10]. Available from: <https://www.berggorilla.org/en/gorillas/species/eastern-gorillas/mountain-gorilla/>

FIGURE 1: Butogota town – The study area map⁴⁶.

information to be gathered. Participation was potentially thought to increase because of personal contact and ensured that most questions were answered.⁴⁹ The questions were designed to find out what the study participants thought about the socio-economic contribution of the mountain gorillas and the strategic management of these species in Butogota. In total, 187 participants were approached and interviewed at either their homes or workstations. The stakeholders who participated in the study are listed in Table 1, along with their gender and the mean years of working in the study area.

Ethical considerations

In complying with research ethics and ensuring the integrity of this study, the researchers first sought permission from the UWA (Reference number: FOD/96/02). Uganda Wildlife Authority is a semi-autonomous government agency in Uganda that deals with the management and conservation of wildlife and natural resources. Secondly, the study was approved by the Cape Peninsula University of Technology's Faculty of Business and Management Sciences Ethics Committee (Certificate Clearance number: 2018FBRC533) as this formed part of a student's master project. The collected data were analysed through the use of the constant comparative method. This analysis technique is frequently used to code and analyse data from the developed concepts.⁵⁰ Conrad et al.⁵¹ note that:

[T]he constant comparative method combines systematic data collection, coding and analysis with theoretical sampling in order to generate theory that is integrated, close to the data and expressed in a form clear enough for further testing. (p. 280)

Four stages of the constant comparative method were followed, and these included comparing incidents, integrating categories, delimiting and writing the theory.⁵² In short, the process involved a data-analytic process whereby the findings and interpretations provided were compared with the literature as they emerge from the data analysis.

Results and discussions

Participant profile

To guarantee that data were collected from the appropriate participants, it was critical to include a description of those who took part in the study. Understanding participant profile was crucial as it provides context that could give meaning to the interpretation of the study findings. As a result, this study began by finding stakeholders or participants (P) who held the necessary and pertinent features to supply the researchers with the data necessary to accomplish the study's purpose. A thematic analysis of 187 semi-structured interviews with specified stakeholders was done (see Table 1). As revealed from the study's findings, business owners in the study area had been operating for an average of 13 years. Several community-based organisations (CBOs) in the study area established a variety of tourism ventures including accommodation (hotels, lodges, B&B, etc.), arts and craft market (souvenirs shops), bottle stores, forex exchange services, tour companies and others. The local entrepreneurs

and CBOs had been operating in Butogota for a period spanning from 1 year to nearly 4 decades.

Religious leaders who participated in this study had an average of 6.1 years of involvement with church activities in the study area, and this ranged from half a year to slightly above four decades. The majority of religious leaders were Christians, Uganda's most widely practised religion.⁵³ Educators and/or teachers who participated in this study included those from the early childhood development (ECD) to tertiary level in Butogota. The average number of years these educators and/or teachers had worked in the study area was 8 years with a minimum of 7 months and a maximum of 32 years. Wardens, rangers, security personnel drivers, animal veterinary staff and tour guides made up the BINP team. Whilst the new employees had served for a period of at least 2 years, the longest serving BINP staff had up to 35 years. Meanwhile, the staff had worked for an average close to 2 decades (18.3 years). This study indicates that some individuals worked in the park prior to its designation as a national park, implying a greater understanding of park operations. In total, 21 government representatives took part in the study. These government officials included agricultural extension agents, health practitioners and social workers. The government employees have served an average of 12.5 years in the research area. Headmen, ward councillors, community elders and local chairpersons were amongst the local leaders who participated in the study. Local leaders have been participating in local activities in their area for an average of 23.8 years, ranging from three to 43 years.

Benefits from mountain gorilla tourism

The study participants indicated how they benefited from mountain gorilla tourism activities in their area. The responses varied from participants with contributions that included job creation, entrepreneurial opportunities, infrastructure development and many other benefits. The researchers were interested in understanding the extent to which mountain gorilla tourism operations benefit the churches in the study area and beyond, hence religious leaders were interviewed. Some religious leaders expressed satisfaction with gorilla tourism activities, for instance, one participant stated that they acquired their 'holy book', as reflected in this remark, '... we were given Bibles a few years ago' (Religious leader, female, 38 years old, 4 years working as a pastor in the study area). Another pastor indicated how mountain gorilla activities benefit the youth, particularly job opportunities. The theme on jobs as seen in the findings is illustrated in the following excerpt, '... some new creativity and innovation have been created hence improving standards of living... money is earned as some do this as full-time jobs or means of making a living' (Religious leader, male, 56 years old male, 7 years of working in study area).

The majority of business respondents admitted that gorilla tourism has impacted their operations in a variety of ways. Some business owners revealed that tourist activities in the area had led to the establishments of marketplaces for their

products that aided in the expansion of their businesses. In addition, one business owner highlighted the significance of having tourism activities such as mountain gorilla tourism in the area as it also brings customers to business as evidenced by the following quote; '... tourism in this area has enabled my business to grow and mostly in a positive way ... tourists have formed part of my customers' (Business owner, female, 48 years old, lived in the study area for 18 years). From the restaurant and accommodation sector, a guesthouse owner noted that tourists make use of the amenities at their establishments after the mountain gorilla-tracking activity as shown from the following quotation:

'Indeed, mountain gorilla-tourism is helpful to us business-people; look at the number of tourists who come to track the gorillas, most of them, come and have lunch and breakfast at the guest house... I am happy and would like to see this kind of tourism growth. My children are at good schools, and this is possible because of tourism who (sic) support my business...' (Business owner, male, 53 years old, lived in the study area for 16 years)

As previously stated, tourism activities in the area have resulted in local tourism products and artefacts finding a market thereby increasing profits for business owners. This was supported by the following excerpt; '... markets have been created thus the development of the business' (Business owner, male, 33 years old, lived in the study area for 9 years), and '... more revenue has been realised from the tourists purchasing from our business' (Business owner, female, 28 years old, lived in the study area for 6 years). Because tourism has provided villagers with several economic opportunities, it has uplifted their standard of living. Local infrastructure, such as road networks, leading to the key tourist attractions, has been renovated, and this has benefited local companies that also rely on this infrastructure. The roads should, however, be maintained and improved regularly. The Butogota town region has benefited from government projects, including rural electricity programs, which most stakeholders who took part in the study attributed to the area's burgeoning tourism industry. Table 2 shows selected excerpts from the study participants highlighting some of the contributions of mountain gorilla tourism activities in Butogota.

Arts and crafts businesses in the area have been supported by activities associated with mountain gorilla tourism taking place in the Botagota area through the buying of souvenirs and other artefacts. However, one responder voiced concern about severe rivalry amongst businesses as extracted from the except, '... some tourists buy from me, but there is also too much competition which requires us to look at ways to become competitive, for example stocking a variety of wares...' (Business owner, male, 41 years old, lived in the study area for 15 years). Because of the strong competition amongst businesses, it also stimulated the delivery of quality products and services. Generally, the findings revealed that whilst others perceived the benefits from mountain gorilla tourism to be more positive to them, the other participating groups do not share the same sentiments.

TABLE 1: Key stakeholders for the study.

Stakeholder or participant	Total	Duration of service in Butogota (mean)	Gender classification	
			Male	Female
Business owners (P1)	26	13.0	17	9
Religious leaders (P2)	27	6.1	8	19
Educators and/or teachers (P3)	54	8.0	31	23
BINP staff (P4)	29	18.3	19	10
Government officials (P5)	21	12.5	10	11
Local leaders and/or headmen (P6)	30	23.8	26	4
Totals	187	13.6	111 (59.4%)	76 (40.6%)

BINP, Bwindi Impenetrable National Park.

TABLE 2: Excerpts from study participants: Benefits of mountain gorilla tourism.

Number	Excerpts on the current data
1.	'Been able to open up my African shop, and tourists buy from me' (Business owner, female, 35 years old).
2.	'employment opportunities for the youth ...' (Religious leader, male, 47 years old).
3.	'Income generation through the selling of my art pieces' (Teacher, male, 31 years old male).
4.	'Improved on the infrastructure' (Teacher, male, 34 years old).
5.	'Rural electrification program extended to some parts of our area ...' (Business owner, female, 35 years old).
6.	'We have been able to open up a new branch in this area and therefore expanding' (Business owner, male, 29 years old).
7.	'I have made friends with some of the tourists, and we communicate on social media' (Business owner, male, 55 years old).
8.	'Tourism has boosted on my business ...' (Business owner, male, 43 years old).
9.	'Employment opportunities, Urbanisation of the area, rural electrification around the area.' (Business owner, female, 39 years old).
10.	'Increase in my customer numbers' (Business owner, female, 48 years old).
11.	'I was able to open up my shop' (Business owner, female, 35 years old).
12.	'I have been able to construct my guest house and expand it' (Business owner, male, 53 years old).
13.	'Supplied new services to the community' (Business owner, male, 40 years old).

Management strategies for monitoring mountain gorilla tourism

In determining the ways to improve mountain gorilla tourism activities in the study area, the participants were requested to suggest mountain gorilla tourism management strategies best suited for the sustainability of this unique tourism product. The study revealed seven themes for the desired management for mountain gorilla tourism, and these are summarised below:

- fighting corruption
- controlled access and more conservation
- involving more local participation
- infrastructure development
- deal with poaching
- training of staff
- local empowerment.

Corruption

According to the study's findings, measures for combating corruption were frequently mentioned during the interviews. Some locals were concerned about corruption, particularly the unequal distribution of tourism benefits, and believed that the government should establish strict anti-corruption policies and procedures to deal with the issue head-on. The same finding corresponds with that of Tumusiime et al.,⁵⁴ who revealed that a widespread corruption, particularly regarding income sharing for parks, was rampant. Corruption was deemed to be

damaging to Uganda's tourist growth and development, necessitating collaboration amongst diverse stakeholders to find a solution. A teacher at a primary school (Teacher, female, 46 years old female, 13 years living in the study area) expressed concern regarding corruption that has led to reduced community benefit '... if the government comes with strict measures to deal with corrupt activities, it will enable growth, and all people to benefit... Stop the massive corruption!' Corruption has been cited as a significant impediment to tourist expansion, as it has a detrimental effect on the tourism businesses.

The issue of removing corruption was a recurrent theme in the responses, with company owners suggesting that the government must enact stringent steps to combat it. It is widely acknowledged that corruption is widespread and more pervasive in the Global South than in the Global North.⁵⁵ Research participants shared their views on the fact that the majority of government agencies desired to control their own budgets. Some business owners (Business owner, male, 41 years old, 15 years of living in the study area) had the impression that foreign investors operating businesses in Butogota were given preferential treatment by the government, and this was related to corrupt practices on the part of some officials in government. Additionally, there was testimony from other businesses that were functioning without being properly registered. The registered business owners viewed the practice of operating illegally as unfair, thus calling for an intervention from the government (enforcement of rules on how businesses operate). The research results indicate that the Ugandan government has more work to do to improve mountain gorilla management policies and strategies. Some of the stakeholders appeared to be unaware of these methods, despite the fact that they are crucial.

Controlled access and more conservation

The Ugandan government established PAs in an endeavour to protect the nation's wildlife.⁵⁶ These areas are meant to keep the country's species safe. However, poaching, deforestation (logging), population growth and encroachment are all threatening wildlife, putting them at risk of extinction. The majority of those who took part in the study agreed that if gorilla tourism is to 'expand', there must be techniques and mechanisms in place to prevent poaching and controlled timber harvesting. One participant, a business owner, suggested that the tree-planting initiative be spread to more regions in order to benefit animals. The following quotes from the interviews demonstrate this: '... more work needs to be done to improve on conservation programs and including tree planting' (Headman, male, 59 years old, 22 years of living in the study area); as well as 'encouraging conservation policies and their implementation ... rather than only policy formulation' (Headman, male, 56 years old, 18 years of living in the study area). The park staff (BINP staff, male, 44 years, 12 years of living in the study area) indicated the need to uphold the restrictions that include access into the park and ensure that wildlife is protected.

Local involvement

The study emphasised the importance of involving locals in tourism development. Furthermore, their participation in the management of the park was highlighted as fundamental. The participation of locals especially in tourism development is considered essential for the success of the industry.⁵⁷ This is because of the fact that these local communities supply the primary services required by the tourists at a destination, such as transportation, accommodation, information, businesses, catering and a variety of other services. The study participants suggested that the community members should take control of tourism activities in their area. This can be achieved through involvement in the decision-making process, as supported by studies that advocate for community involvement in tourism planning and development. When locals are involved, it motivates them to maintain tourism facilities, support strategies and practices, which alleviates potential resistance.⁵⁸ The study's participants expressed a need for increased local involvement in mountain gorilla tourism management. Local communities' involvement can take several forms, including the creation of jobs for people, the usage of local resources, enterprises and tourism-related concepts. In the conversation, one business owner stated that the planning process must consider locals' involvement, as seen in the following extract; '... local people's ideas should also be considered while planning' (Religious leader, female, 35 years old, with four years living in the study area). Some of the study participants described involvement in terms of job opportunities and other aspects (as seen in the selected excerpts '... encourage more local tourism ...' [Business owner, male, 43 years old, with eight years living in the study area]; '[p]ark management should work very closely with us business owners ...' [Business owner, male, 53 years old, 16 years living in study area] and '... employ local and well-trained people as rangers and managers of mark (sic) affairs ...' [BINP staff, female, 33 years old, five years living in the study area]). Local participation is crucial for the development of tourism, particularly for the management of gorillas in the Bwindi forest, as this study demonstrates.

Infrastructure development

English and Ahebwa⁵⁹ note that the Ugandan government has done much to address the problem of poor infrastructure in the study area. However, more work is expected to be done, particularly maintaining access roads to the PAs. The poor infrastructures in most of Uganda's gorilla parks could make tourists consider other tourism destinations, especially those with similar tourism products such as in Rwanda and DRC. Consequently, potential money and jobs could be lost, thereby diminishing the economic contribution of tourism. Thus, Uganda's government should continue modernising and growing tourism infrastructure in order to generate more tourism revenue. This is only achievable with enhanced infrastructure at tourism destinations that are conducive to tourism, as well as more marketing and publicity. As evidenced by the study, respondents acknowledged a need for improved road networks ('...construct better roads'

[BINP staff, female, 24 years old, 17 years living in the study area]; 'build and expand better roads to compete effectively' [Headman, female, 40 years old, 32 years living in the study area]; '[w]e need the roads improved' [Business owner, male, 41 years old, 15 years living in the study area]; '[n]eed to improve on the road networks especial if it rains' [Religious leader, female, 30 years old, 6 years living in the study area]; 'some roads connecting to Bwindi at times blocked because of landslides ... disrupt the movement of tourists and guides in the park ... can take days to get fixed' [BINP staff, male, 34 years old, with nine years living in the study area]; 'roads, schools and hospitals in the area should be improved' [Religious leader, female, 30 years old, 11 years living in the study area]), and area development. Uganda's tourism could be more competitive in East Africa if it improves its roads, air connections, communication networks, housing and facilities for tourists.⁵⁹ In addition, officials from the government who took part in this study stressed the importance of the government increasing its investment in infrastructure development. To give an example, a government official who works as an agricultural extension officer stated, 'government needs to mobilise resources to improve on infrastructure like roads, hospitals and markets' (Government official, female, 36 years, 17 years of living in the study area).

A question was posed to government officials who took part in the study, asking them to identify any new methods that the government, in collaboration with the UWA, should use to improve mountain gorilla tourism in Butogota. For decades, a number of strategies have been used to improve mountain gorilla management. These strategies included, complying with the group size (8 people max) rule, restricting access to sick visitors (not allowed to trek), maintaining the viewing distances (> 7 m) and many others.¹⁷ However, with the development of modern technology, new techniques may be devised. Government officials were additionally asked to provide recommendations on what policies should be put in place to support gorilla trekking in Uganda. During the interviews, a variety of comments were collected, and these correlated with best practices that could make Uganda more competitive in terms of mountain gorilla tourism. Conservation projects, such as those involving wildlife, could be increased; 'gazetting more land for wildlife' (Headman, male, 63 years old, 27 years living in the study area), which will ultimately promote wildlife growth.

Dealing with poaching and training

The study identified poaching as the main threat to wildlife growth. In dealing with poaching, a government representative stressed the significance of instituting unsympathetic measures to fight corruption, '...strict laws should be put in place to fight poachers and the people breaking the laws' (Government official, male, 54 years old, 16 years living in the study area). Investment in 'knowledgeable staff' (Teacher, male, 34 years old, 10 years living in the study area) such as rangers and guides, was identified as an alternative way of making Ugandan trekking of the gorillas more competitive. It is vital for tourism,

including mountain gorilla tourism, to have workers who are highly professional, ethical, transparent and willing to partake in the conservation of wildlife:

'Replace the staffs (sic) who are transferred to other centres rather than leaving a few staffs (sic) doing more work, ... it is important to train more guides and other staffs (sic) and these need to come from the area – local employment' (Government worker, male, 54 years old, 16 years living in the study area)

Following the study's findings, it is recommended that the Ugandan government take additional steps to develop management plans and policies in order to better manage mountain gorillas in their natural environment. Some of the stakeholders did not appear to comprehend these methods, despite the fact that they are critical.

Local empowerment

A question on whether the business respondents thought the mountain gorilla management practices are linked to how their companies ran were beneficial or detrimental was asked. This was critical to obtain information from business owners because it might be essential for the government when developing policies that might have an impact on small- and medium-sized business. When asked this issue, the responses were diverse, with some stating that the strategies were advantageous, whilst others expressed dissatisfaction with the high levels of taxation paid on their businesses. Some of the techniques, according to a business owner, were beneficial and allowed for the expansion of the company. However, some appeared unfavourable, particularly in the area of taxation, '... some strategies are favourable, but taxation is high hence reducing our profits' (Business owner, male, 33 years old, 9 years living in the study area). The favourable strategies cited by the participants were associated with easy access to funding as indicated in the following quotation; '... the government has given us loans that we have used to start up our business' (Business owner, male, 43 years old, 8 years living in the study area). Businesses, in general, benefit from favourable government interventions, one of which is the decrease of product-related taxes, as illustrated in the following excerpt, '... there is reduced taxes on some of our imported products' (Business owner, male, 53 years old, 16 years living in the study area). However, one participant who owns an art and craft business had a different view regarding the laws that were felt to be discriminatory, '... the government has discriminated us and is only supporting foreign investors' (Business owner, male, 41 years old, 15 years living in the study area). As a result of the research, it was discovered that business owners had differing opinions regarding the various government policies governing gorilla tourism. The Ugandan government must educate the public about its policies and strategies in order for them to better understand and appreciate this type of tourism in the future.

Collaboration at different levels was identified as one of the practical strategies to be adopted by the Ugandan government to propel its tourism. The participants in the study were unanimous in their belief that tourism stakeholders

should explore collaborating, and that these collaborative activities in tourist marketing might occur at the inter-governmental level. For example, a teacher stated that for a plan to be competitive, governments must collaborate as shown from the quote, '... the government of Uganda should work hand in hand with the government of Rwanda to improve gorilla tourism' (Teacher, female, 35 years old, 12 years living in the study area). Gursoy et al.⁶⁰ note the various collaborations in tourism, including partnerships and alliances, which are essential for survival and growth. From the interviews, it also became apparent that partnerships to market tourism products were critical. This included international synergies between the neighbouring countries (Rwanda and DRC) to market gorilla tourism activities.

Conclusion

Mountain gorilla tourism plays a crucial role in wildlife conservation and thus contributes significantly to national economies. In Uganda's parks, gorilla tracking generates vital funds for conservation programs. Local communities scattered around the parks also benefit from tourism, thus encouraging them to support conservation efforts. This support has resulted in limited illegal activities such as poaching, logging and human encroaching into the park periphery as they benefit from the PA. However, more can be done to ensure that locals benefit from tourism activities in their area. This could include continuous maintenance of roads, expansion of infrastructure, ways to deal with corruption, empowerment of locals and controlled access into the PA by following the stipulated guidelines. The study should assist park authorities in partnership with relevant stakeholders to promote community-based tourism products and services that enhance local skills development, create job opportunities and offer long-term prospects for the park to exercise conservation initiatives of the mountain gorillas as they promote ecotourism. Finally, the results of this study could also contribute to the body of knowledge on ecotourism and policy development which in turn could assist in improving the benefits of mountain gorillas to the local people. With the challenges that have been brought by the COVID-19 pandemic, it could be recommended that a comparative study to assess the socio-economic impacts during and post the pandemic era be undertaken. This may reveal the shift in locals' perceptions on the ways in which mountain gorilla tourism is managed in Uganda and other destinations offering similar tourism products.

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The authors declare that they have no financial or personal relationships which may have inappropriately influenced them in writing this article.

Authors' contributions

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