

Impacts of Armed Conflicts on Tourism in Protected Areas and Their Environment in Virunga National Park, Democratic Republic of Congo.

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DOI: <https://dx.doi.org/10.47772/IJRISS.2024.804144>

Received: 04 April 2024; Accepted: 12 April 2024; Published: 18 May 2024

ABSTRACT

Armed conflicts have been on the rise in the Democratic Republic of Congo. It harms the country's destination image with respect to tourism. Evidence demonstrates that violence have a negative effect on demand for tourism. It is also documented that countries suffering from armed conflicts severely impair their economies since human life is frequently lost and growth is threatened. This research was undertaken in and around Virunga National Park and assessed the effects of armed conflicts on tourism activities. The target populations were local residents and key informants drawn from organizations operating in and around the park with a sample size of 255 respondents. This constituted 200 local residents who participated in the questionnaire survey, 40 who participated in focus group discussions, and 15 key informants. Stratified, Systematic, purposive and simple random sampling techniques were used to select respondents. Structured questionnaires, interview schedules, observations and focus group discussions were used to collect data. Data was analyzed using descriptive statistics and Chi-square test goodness of fit with aid of SPSS. Results using graphs and tables showed areas mostly affected by armed conflicts were eco-tourism (97.9%), Cultural tourism (1%), Wildlife based tourism (0.5%) and Agro-tourism at 0.6%. While the most affected tourism activity was Gorilla trekking at 92.7%, accommodation and ascension of Nyiragogo. Conflicts decreased tourist arrivals and tourism activities in and around the park ($X^2=330.0, df=4, p<0.0001$). Recommendation was to reduce the conflicts further and remove the armed groups then reduce their impacts on tourism activities in addition effective implementation of laws ensuring equality on utilization of the resources and restriction of movements in and around the park.

Keywords: Armed conflicts, Tourism Activities, Virunga National Park.

INTRODUCTION

Armed conflict affects people past, present and future lives (Adewumi, 2022). The perception of danger among potential visitors according to Kapuciski and Richards (2022) is mostly based on the fact that people who want to travel to armed conflict impacted areas are afraid of crime, violence, and political unrest. Armed conflict and terrorist attacks have a direct impact on how tourists behave by changing how they perceive the risk in the destination nation (Okafor & Khalid, 2021). Despite this, a number of variables that ultimately influence visitor flows affect how people perceive danger (Okafor & Khalid, 2021). Therefore, tourists are very sensitive and responsive to instability and conflicts or their symptoms in destinations (Mataković & Cunjak Mataković, 2019). DRC Congo is an important country in the central Africa, with vast resources and tourist attractions which due to war has not been properly utilized. Most of armed conflicts studies have been done in Asian, Middle East, and South America and in Africa more has been on a review of the conflicts on tourists. This study is essential as it explore the effects of armed conflicts not only on the tourists' arrivals but also on the tourists' activities of the destination, forms of tourism mostly affected and effects of such on the natural resources and species of concerned. Tourism in Democratic Republic of Congo, just like in Israel and Ukraine, has also been battered by war in recent years (skift.com). Skift reported in January 2023 that Western governments discouraged travel to Democratic Republic of Congo due to the ongoing civil war, which also drove several tour operators not to conduct trips in the country (skift.com). Democratic Republic of Congo Tourism State Minister Sileshi Girma said tourism industry lost \$2 billion due to the unnecessary war. One might be surprised to learn that Eastern Democratic Republic of Congo (DRC), which is commonly associated with images of human suffering and war, is also a tourist destination (Marijnen, 2022). Tourists venture to the area to gaze upon charismatic, endangered mountain gorillas, but also to experience 'Congo's troubles' while keeping a 'safe distance (Marijnen, 2022). To comprehend; the impact of armed conflicts on the travel and tourist industry, particularly in the research region; the study explored different methods of data collections such as questionnaires, focus group discussion, key informant interview and observation. This in essence established the past, presents and could possible try to provide a solution for future conflicts on tourisms and conservation. The tools cited provided in-depth information especially for Democratic Republic of Congo where there have been wars for long time and where peace seems to be a pipe dream for many of the residents (Timothy *et al.*, 2022). Virunga's management argues that tourism not only protects nature, but also fosters peace in the area – it supposedly generates economic revenues, offering people an alternative to joining rebel groups (Marijnen, 2022). Such discourse falls within the seductive win-win rhetoric of neoliberal conservation and 'green peace' (Marijnen & Schouten, 2019). Therefore, wars can lead to tourism shutdowns, disrupt travel plans, and lead to significant losses for businesses in the tourism sector. Furthermore, they can also lead to long-term impacts on the image and perception of a destination, deterring future tourism. Thus, this study is vital as it has provided information on the effects of of armed conflicts on tourism activities major economic sources for the local residents, the region and the country.

METHODOLOGY

Study Area.

The Albertine Rift valley in which includes the Virunga National Park is found is situated in the eastern DRC at latitudes 00°56' N and 01°39' S. The park initially encompassed around 200 km² and was established in 1925 to protect mountain gorillas (*Gorilla gorilla beringei*). Between 1929 and 1950, it was expanded to reach its present area of 7900 km² (Ahmed *et al.*, 2023). Given the worries about potential effects of local people on gorillas, the purpose of these additions was to preserve other large animals particularly the elephant, hippo, and buffalo (Novta *et al.*, 2021).



Figure 1; Map showing the study site

Sampling methods

The study utilized mixed method research design where both quantitative (Questionnaire) and qualitative (focus group discussion, key informant interview and observation) was used. The target population for this study included local community members living adjacent to the park, administrative (government) officers, tourism practitioners, park staff among them rangers, and officials of community-based organizations and Non-Governmental Organizations (NGOs). The sample for the study was selected using different techniques among them stratified sampling in selecting villages (where villages were put in stratus basing on the distance from the park 0-5km, 6-10km the selected using simple random method); systematic sampling was used in selecting homesteads moving along established road network and after getting the number of household in the village, purposive sampling was used to select representatives from community-based organizations, tourism practitioners, government officers and Non-Governmental Organizations (NGOs) this are people with vast knowledge about the topic under study and were selected to provide their insight about the conflicts and simple random sampling techniques was used in selecting the rangers and local communities members within the household where participants/respondents above 18 years and had lived in the area for over five years was selected and rangers posted in the park and lived in the area for five years and above were capable to selected for the study .

Data collection methods

The data was collected using questionnaires, interview schedules, focus group discussion and observations. The questionnaire used in this study was composed of both closed and open ended questions and administered to household heads in 4 sampled villages adjacent to the park by the researcher and research

assistants. Moreover, interviews for this study were conducted with employees of ICCN and the Virunga Foundation, administrative leaders and elders from the host community in the sampled villages around the park. Focus group discussions (FGDs) were held with four groups each with ten participants that consisted of four women and six men. Each FGD was conducted for one hour. The FGDs were conducted in local languages of the area among them Swahili, Lingala, Kinyarwanda and French to facilitate interaction and free communication by participants. Finally, observation was used to obtain first-hand information by the researcher as she traversed the study area collecting data.

Data Analysis

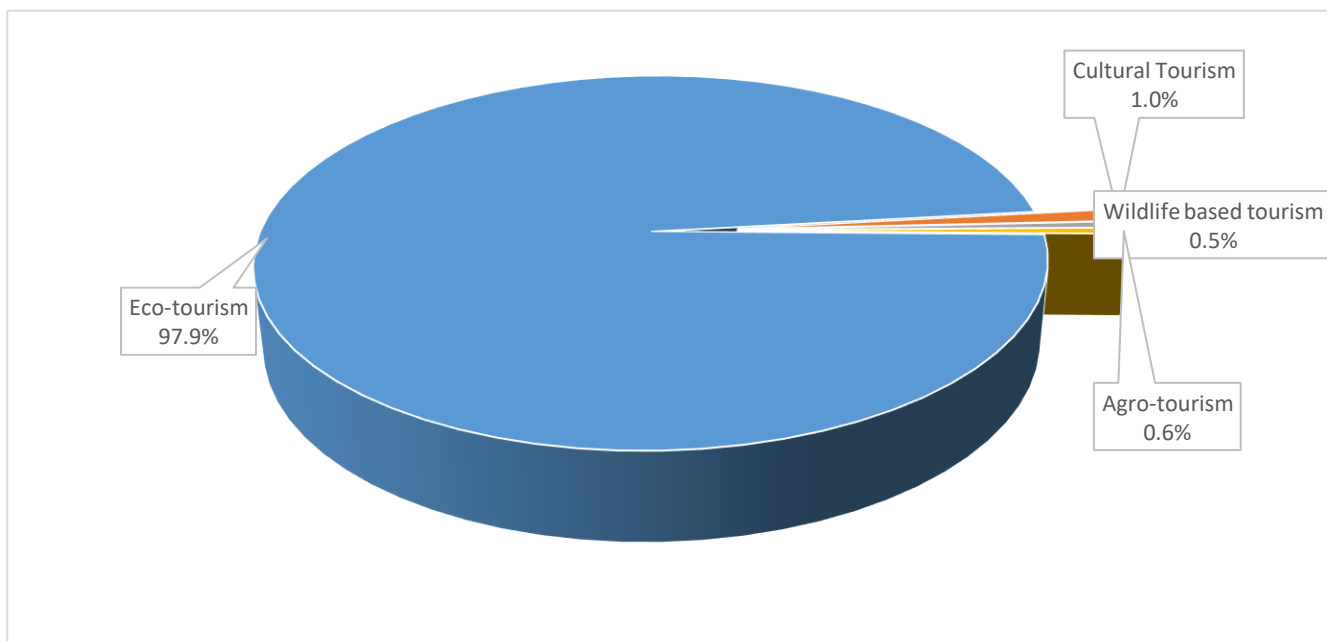
Primary data collected using questionnaires was verified, compiled, coded, reorganized and summarized for computer analysis. Analysis of the primary data was facilitated using the Statistical Package for Social Sciences software (SPSS) version 25. Data from the FGD and interview schedules was transcribed into written format using Express Scribe then major themes were identified and data organized accordingly and then interpreted. Descriptive analysis involved determination of frequencies and percentages, while inferential statistical analysis involved use of Chi-square Goodness of fit test was used to determine differences between observed and expected differences between different variables. Results are presented using descriptive descriptions, tables and graphs.

RESULTS

Effects of armed conflicts on tourism activities in Virunga National Park and its surrounding.

A large proportion of the respondents (99.0%) indicated that armed conflicts experienced in and around VNP affected tourism activities ($\chi^2=96.04$, df. =1, $p<0.0001$). Further, the forms of tourism mostly affected by armed conflicts included Cultural Tourism (1%), Eco-tourism (97.9%), Wildlife based tourism (0.5%) and Agro-tourism (0.5%) ($\chi^2=282.56$, df. =3, $p<0.0001$) as shown in Figure 2.

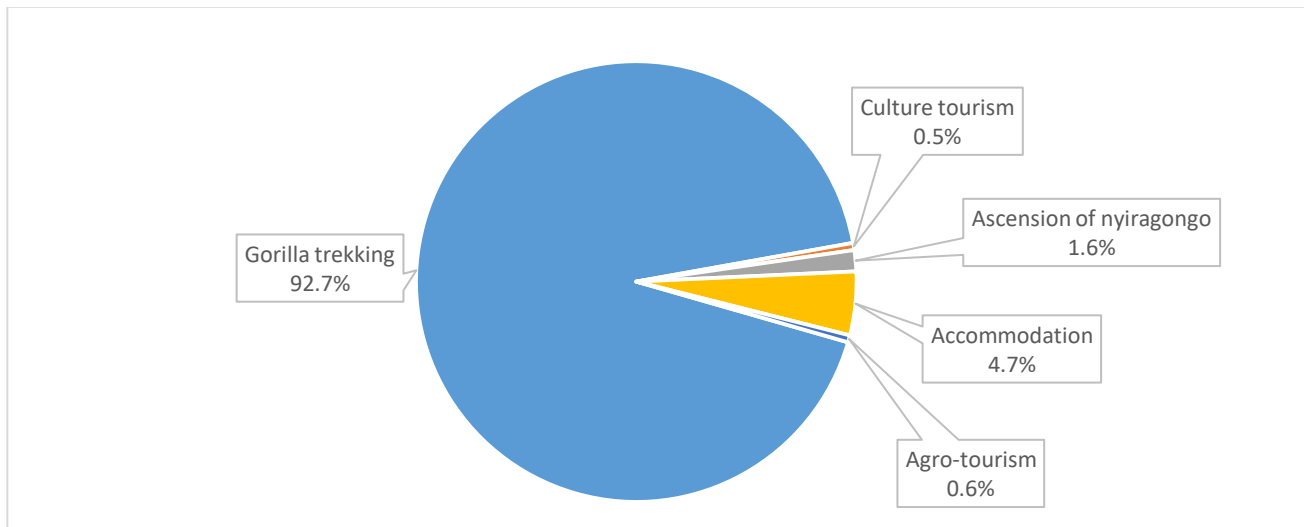
Figure 2: Forms of tourism mostly affected by armed conflicts



The figure 3 below provides information on the most affected tourism activities in the study. The mostly affected tourism activity by armed conflicts was gorilla trekking (92.7%) while the least were cultural tourism (0.5%), ascension of Nyiragongo (1.6%), accommodation (4.7%), and Agro tourism (0.6%) (χ^2

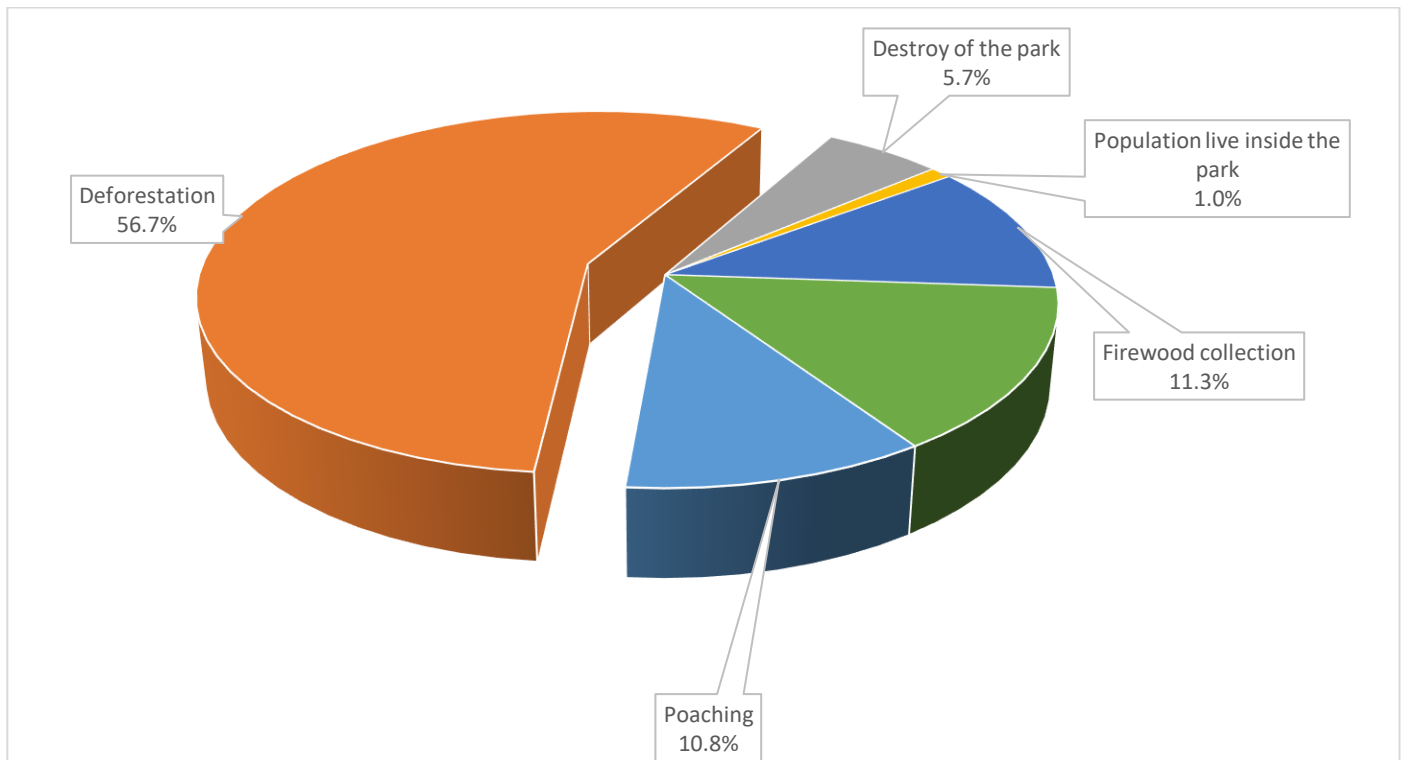
=330.0, def. =4, p<0.0001).

Figure 3: Tourism activities mostly affected by armed conflicts.



Furthermore the finding indicated that armed conflicts experienced in Virunga National Park had also impacted on wildlife which is a major tourist attraction especially through deforestation (56.7%), firewood collection (11.3%), and poaching (10.8%) ($\chi^2= 123.56$, df.=5, p<0.0001) respectively as shown in figure 4 below.

Figure 4: Ways in which armed conflicts impact on wildlife in Virunga National Park



A liker scale was used to gauge respondents understanding on the effect of the armed conflict on tourism activities and wildlife. The findings have shown that armed conflicts affect tourism activities (p< 0.0001), have affected tourist arrival (p< 0.0001), had increased poverty levels (p< 0.0001), and had collapsed tourism enterprises (p < 0.0001) as shown in table 1.

Table 1: Effects of armed conflicts on tourism activities in Virunga National Park and its surrounding.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Chi square (χ^2)
Armed conflicts have not affected tourism activities in and around Virunga National Park	154(79.4)	1(0.5)	–	15(7.7)	24(12.4)	194(100.0)	$\chi^2=158.0$, d.f.=3, p< 0.0001*
More tourist are arriving in Virunga National Park despite the presence of armed conflicts	115(59.6)	–	–	10(5.2)	68(35.2)	193(100.0)	$\chi^2= 45.5$, d.f.=2, p< 0.0001*
Armed conflicts have led to increase in poverty	1(0.5)	–	–	2(1.0)	191(98.5)	194(100.0)	$\chi^2=$ 192.09, d.f.=2, p< 0.0001*
Armed conflicts have led to collapse of tourism enterprises	1 (0.5)	–	1(0.5)	104(53.6)	88(45.4)	194(100.0)	$\chi^2= 95.72$, d.f.=3, p< 0.0001*
Armed conflicts have led to increase in tourist arrivals	84 (43.3)	–	–	31(16.0)	79(40.7)	194(100.0)	$\chi^2= 13.58$, d.f.=2, p< 0.0001*
There is an increase in tourism activities despite the presence of armed conflicts	68(35.1)	–	–	29(14.9)	97(50.0)	194 (100.0)	$\chi^2=18.50$, d.f.=2, p< 0.0001*
Armed conflicts have led to poor infrastructure and social amenities	1(0.5)	–	–	20(10.3)	173(89.2)	194(100.0)	$\chi^2=140.66$, d.f.=2, p< 0.0001*

Armed conflicts have led to reduced number of tourists	3(1.5)	–	–	113(58.2)	78(40.2)	194(100.0)	$\chi^2=49.08$, d.f.=2, p< 0.0001*
The local economy has been destabilized/collapsed due to armed conflicts	–	–	–	87(44.8)	107(55.2)	194(100.0)	$\chi^2= 1.0$, d.f.=1, p= 0.3173
Armed conflicts have instilled fear in potential tourists	–	–	–	83(42.8)	111(57.2)	194(100.0)	$\chi^2=1.96$, d.f.=4, p= 0.1615
Armed conflicts have damaged the destination image	–	–	–	70(36.1)	124(63.9)	194(100.0)	$\chi^2=7.84$, d.f.=1, p= 0.0051*
Armed conflicts have led to increase in crimes	–	–	–	60(30.9)	134(69.1)	194(100.0)	$\chi^2=14.44$, d.f.=1, p=0.0001*

Numbers in parenthesis are in %

All p-values with an asterisk (*) were significant

Source: Researcher (2023)

DISCUSSION

Eco-tourism was the main affected form of tourism around VNP as the local population had invested more in this. During one of the an interviews a respondent asserted that “ *As you know the Virunga National Park is full of mountain gorillas in its part of the Mikeno sector and through the mountain gorillas, there were a large number of tourists who came but since the war started all the sites are closed. As armed conflicts have arrived in the Nyamulagira sector, there are no longer any tourists visiting the active volcano of Nyiragongo*”. Such impact is so grave to the local community and local economy thus increasing the level poverty which in turn triggers more conflicts due to the suffering of the residents.

Findings of armed conflicts have led to a fall in handicraft business, agricultural production and the number of tourists. These findings are in line with those of the current study results which showed that armed conflicts have led to reduced number of tourists and local economy being destabilized. UNWTO, 2020 in a study on impact of armed conflict on tourism industry in Kashmir province found that there was a clear connection between terrorism and increasing unemployment. Findings showed that the employment rate

declined from 44.3 percent in 1981 to 36.6 percent in 2001. As stated by one of the resident during the FGD “*Since the conflicts begun finding job opportunities in our area has been scarce, youths are not employed thus becoming susceptible to join the armed conflicts*”. According to Sass (2020) Ukraine lost its attractiveness as a result of Ukrainian crisis. While in 1995 it was 32nd in the world tourist destination rankings, by 2005 it reached the distinguished 13th position (UNWTO, 2020), while in 2013 it was the 14th (UNWTO, 2020). However, by 2017 it fell back to the 27th place and this tendency developed further in 2018 when the country was positioned as 30th (UNWTO, 2020). Thus, the impact of the conflict on negatively affected tourism and local livelihood. On the issue of decrease in the numbers of tourists Buckley *et al.* (2015) and Sass (2020) have shown that due to ISS conflicts the number of visitors/tourists to Syria and Iraq have decreased after their attack on Mosul and occupation of the main museum of the city and terrible destruction of ancient things by them. Álvarez-Díaz *et al.* (2019) found out that in 2017 Catalan separatist challenge’s caused an economic impact in the region losing an estimated revenue to €200 million due to international and €27 million due to domestic touristic shortfall during the study period thus agreeing findings of the current study on tourist arrival reduction within the park for both domestic and international tourism. Islam (2014) also found a significant negative relationship between armed conflict on one hand and the tourism sector and Jammu and Kashmir’s economy. All the cited authors agree with current finding where the conflict has affected tourism activities thus impacting the local economy of the residents. The results confirmed the findings of Hoeffler and Reynal-Querol (2003) and Ray and Esteban (2017), showing that conflicts hurt economic growth, as well as those of Akresh *et al.* (2012) and Brück *et al.* (2019), revealing that conflicts have negative social outcomes such by shortening lives and interrupting education. Thus, conflicts not only affect economies directly by damaging infrastructures and disrupting production and investment flows but also affect the availability and quality of human resources for economic activities. Furthermore, the results supported Cerra and Saxena’s (2008) and (Novta, 2021) findings regarding the devastating impacts of conflict, which last far beyond the conflict period. Armed conflicts tend to dampen international attractiveness of a country, while tourists are more likely to visit most peaceful countries (Okafor, & Khalid, 2021). A country or region that is highly attractive to international tourists’ risks losing its attractiveness once engulfed in armed conflict (Okafor, & Khalid, 2021). The finding aligns with the current finding on the impact of armed conflict on destination image. Similarly, in the aftermath of security incidents coupled with negative travel advisories from some countries, the number of tourist arrivals in Egypt fell by 42% in 2016 (World Tourism Organization, 2020). The finding by Akamavi, Ibrahim and Swaray (2023) showed that the total number of terrorist incidents had a negative influence on the growth rate of international tourist arrivals and the tourism receipts of destination countries. The finding agrees with the current results which indicated reduction in tourism activities in the study area. Moreover, highly insecure destinations affected by terrorism incidents fail to benefit from tourism. Tourism declines when perceived safety risks from terrorism incidents are high, or related information is communicated through the media (Kapuściński & Richards, 2022).

CONCLUSION AND RECOMMENDATIONS

Although there are many forms of tourism and tourism activities undertaken in and around VNP, armed conflicts experienced in the area have had a negative impact on both domestic and international tourism, and resulted in low tourist arrivals and less tourism activities being undertaken. Consequently, with less tourist activities being undertaken this has affected the local economy and resident’s livelihood thus increasing poverty levels which have in turn exacerbated the conflict further due to increases in crime. The impact of the armed conflicts has taken toll on eco-tourism since it is dependent on gorillas and related activities like gorilla trekking that is the major source of revenue for the park. This has affected gorilla conservation and other tourism activities in the park. Moreover, the destruction of forests through deforestation will affect wild animals especially gorillas, and forest elephants which are forest dependent animals. The government should make efforts to compensate people affected by armed conflicts especially investors in the tourism sector by giving them grants in an effort to revive the tourism industry. The effects of armed conflicts on

tourism activities have far-reaching implications for both science and management. By studying these effects, researchers and managers can contribute to the development of sustainable, resilient, and socially responsible tourism practices in conflict-affected regions.

LIMITATION OF THE STUDY

The study was limited on the impacts of armed conflict on tourism in the protect area on Virunga National park. Hence, offering a chance for additional research to fully understand the problem of armed conflicts.

ACKNOWLEDGMENT

George Ariya and Prof. Ipara Hellen University of Eldoret, Kenya. for the guidance and support during research study. I would also be grateful for the helping hands of Professor Claudia Seabra.

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