



Ecotourism Potential and Conservation Challenges in Benoue National Park, Cameroon: A Multi-Stakeholder Perspective

Isabel Mandela Misor, Titus Fondo Ambebe, Tsi Evaristus Angwafo

Department of Forestry and Wildlife Technology, University of Bamenda, Cameroon

Corresponding Author: misoriisabel6@gmail.com

Received: 15 Nov 2025; Received in revised form: 18 Dec 2025; Accepted: 21 Dec 2025; Available online: 29 Dec 2025

©2025 The Author(s). Published by AI Publications. This is an open-access article under the CC BY license

(<https://creativecommons.org/licenses/by/4.0/>)

Abstract— Benoue National Park in Northern Cameroon demonstrates significant ecotourism potential, though development remains constrained by poor accessibility, limited infrastructure, and weak institutional support. We identify the key wildlife species most attractive to ecotourism, document the threats, challenges and mitigation strategies used by park authorities, and examine how these threats have influenced tourist numbers and revenue generated. Data were collected through in-depth interviews with 34 respondents, including eco-guardians, tourists, and local community members engaged with the Conservation Service and Non-Governmental Organisations. We found that, hippopotamus is the park's flagship species, with giraffes, Bouffon's cob, baboons, elephants, buffaloes, hartebeests, and duikers noted as rare but valued attractions. The park faces diverse threats, including poaching, transhumance, gold digging, kidnapping, illegal wood exploitation, fishing, agricultural encroachment, and wildlife-related crop destruction. Visitor experiences are further hindered by poor accommodation, degraded roads, especially during the rainy season, and abandoned infrastructure. Mitigation strategies implemented by the park authorities, in collaboration with the Wildlife Conservation Society, include anti-poaching patrols targeting illegal hunting and exploitation, alongside community engagement through sensitisation campaigns, education, and peripheral village development. Tourist numbers and revenue generated between 2018 and 2024 reveal fluctuating trends. The highest tourist count was 36 in 2018, while the lowest was 8 in 2020. Revenue was lowest at 74,000 FCFA in 2020 and peaked at 596,000 FCFA in 2024 and, underscoring the impact of threats and accessibility challenges. Overall, Benoue National Park remains a promising ecotourism destination anchored by iconic megafauna. Long-term success will require sustained investment in infrastructure, inclusive governance, and adaptive management strategies responsive to evolving threats and opportunities.

Keywords— Ecotourism, ecological threats, tourist trends, revenue generated, wildlife.

I. INTRODUCTION

National parks represent some of the most biologically rich and ecologically significant landscapes worldwide, serving as critical refuges for species and ecosystems under increasing anthropogenic pressure, such as habitat loss, poaching and human-wildlife conflicts (Agrawal & Gopal, 2013; Guadu et al., 2025). As protected areas

designated for the conservation of biodiversity and natural systems (Dudley & Phillips, 2006), they serve as vital sanctuaries for flora and fauna (Agrawal & Gopal, 2013) while offering unique opportunities for sustainable tourism (Blanco-Cerradelo et al., 2022). They are uniquely positioned to serve as ecotourism hubs due to their ecological, cultural, and recreational value (Lu et al., 2022; Luo

et al., 2024; Rhama et al., 2020). Ecotourism, defined as responsible travel to natural areas that conserves the environment and improves the well-being of local people (Cheia, 2013; Xu et al., 2023), contributes significantly to natural resource conservation and cultural stewardship, but its success is deeply dependent on the support and involvement of surrounding communities (Upadhaya et al., 2022). African national parks are endowed with rich wildlife, scenic landscapes, and indigenous cultures that offer immense ecotourism potential and over the past 30 years, ecotourism has become a catalyst for rural development and biodiversity protection, generating socio-economic benefits and fostering community-based conservation initiatives throughout Sub-Saharan Africa (Backman & Munanura, 2015). The creation of these parks was guided by national and international laws, which emphasise the importance of in-situ conservation, protecting species in their natural habitats (Awazi, 2025a; Heywood & Dulloo, 2005). This strategy is pertinent for Cameroon, where many species face threats from habitat loss, poaching, and climate change (Awazi, 2025a). However, the realisation of this potential is often constrained by limited financial capital, weak governance, inadequate community engagement, environmental deterioration, and the inability to contribute to the local economy (Backman & Munanura, 2015; Mnini & Ramoroka, 2020).

Cameroon, often referred to as “Africa in miniature,” is endowed with diverse ecosystems ranging from coastal mangroves and tropical rainforests to savannahs and montane landscapes (Awazi, 2025b; Onana et al., 2019). The country hosts 27 national parks, which serve as critical habitats for endangered species and offer significant opportunities for ecotourism development (Awazi, 2025a). Cameroon is rich in biodiversity and cultural heritage. For example, the Northwest Region alone boasts over 112 ecotourism sites, including waterfalls, caves, lakes, and endemic species hotspots like the Oku Montane Forest (Ambo et al., 2022). Similarly, Campo Ma’an National Park in the South Region is home to gorillas, elephants, and chimpanzees, and offers ecotourism potential through wildlife viewing, forest treks, and cultural immersion (Gadinga et al., 2020a; Gadinga et al., 2020b). Benoue National Park in the

Northern region is a site of excellence for ecotourism in Central Africa, emphasising its natural and cultural wealth (Moussa, 2022). Given its biological richness and scenic landscapes, the park holds considerable ecotourism potential. It offers a variety of ecotourism assets, including wildlife viewing, birdwatching, cultural heritage experiences, eco-lodges and campsites, guided safaris, and nature walks (Moussa, 2022). The park’s proximity to traditional villages such as Bawan and Banda adds value through opportunities for cultural exchange, local crafts, and storytelling. These features position the park as a potential hub for community-based ecotourism, which could generate income, create employment opportunities, and promote conservation awareness (Mboutcheu, 2022). Despite these assets, many ecotourism sites remain underdeveloped due to inaccessibility, limited infrastructure, and weak institutional support. (Ambo et al., 2022; Forje et al., 2021; Tchindjang et al., 2006).

Ecotourism faces challenges such as habitat degradation due to deforestation, mining, and agricultural expansion, weak governance and policy fragmentation, limited community involvement and benefit-sharing, climate change impacts, including extreme weather and biodiversity loss (Backman & Munanura, 2015; Cossengue et al., 2025; Mnini & Ramoroka, 2020). In Cameroon, ecotourism is threatened by geopolitical conflict and insecurity, particularly in the Far North, due to Boko Haram insurgency, cross-border poaching, and illegal wildlife trade, notably in Bouba Ndjidda and Waza National Parks (Gnapou et al., 2023; Pennaz et al., 2018), poor infrastructure, including inadequate roads and tourism facilities, climate change, which alters ecosystems and reduces wildlife populations (Harilal & Tichaawa, 2025), fragmented policy frameworks (Harilal & Tichaawa, 2025, 2018; Sama & Molua, 2019), and a lack of coordinated tourism strategies (Ambo et al., 2022; Harilal & Tichaawa, 2025; Sama & Molua, 2019).

Previous studies on ecotourism in Benoue National Park have emphasised governance challenges, sustainability concerns, and stakeholder perceptions. Moussa (2022) examined the risks of biodiversity loss linked to mass tourism and found that although the park has strong ecotourism potential, mass tourism

and poor regulation were leading to biodiversity loss and environmental pressure and highlighted the need for sustainable planning. Atchombou et al (2022) assessed the governance of ecotourism with the aim of promoting the sustainable management of biological resources and reported that two categories of ecotourism actors are involved in Benoue National Park. Direct actors include Ministry of Forestry and Wildlife/Ministry of Tourism and Leisure and Benoue National Park staff and indirect actors include Non-Governmental Organisations (NGOs) and service providers. They also reported that the issue of equity remained a major concern for stakeholders, as responsibilities and decision-making among the different actors were not shared equitably. In another study, Atchombou et al (2023) reported that local communities and stakeholders believed ecotourism could improve livelihoods. Yet, they pointed out problems such as poor governance and limited community involvement, with the majority of community members dissatisfied with park authorities, and believing ecotourism brought little economic benefit. Additionally, Mboutcheu (2022) examined the tourism potential of two villages (Bawan and Banda) around the park and reported that ecotourism in these villages is closely related to the diversity of wildlife and plant species. These results highlight important challenges but do not identify which wildlife species attract tourists, nor do they provide data on how threats affect tourist visitation and revenue generated. They suggested that the ecotourism potential of the park and its surrounding areas should be thoroughly evaluated. This study, therefore, aims to enhance our understanding of the ecotourism potential of Benoue National Park, specifically by identifying the key wildlife species most attractive to ecotourism, documenting the opinions of stakeholders on the threats and challenges affecting ecotourism development and the mitigation strategies used by the authorities of Benoue National Park, and analysing how these threats have influenced tourist numbers and revenue generated.

II. METHODOLOGY

2.1. Description of study area

Benoue National Park is located in the North Region of Cameroon (Figure 1). It was first established as a faunal reserve in 1932 and later upgraded to national park status in 1968 (Sylvain et al., 2018). The park is located between 7°55–8°40 N latitude and 13°33–14°02 E longitude (Birdlife International, 2025), covering approximately 1,800 km² (Scholte & Iyah, 2016). The Park experiences a Sudano-Guinean climate, characterised by a dry season from October to April, with the coldest months being December and January. Temperatures range from 19.7°C to 39.8°C (Climate-data, 2025). The name of the park originates from the fact that the Benue River runs through the park and extends for more than 100 km along its eastern borders (MINFOF, 2019). Benoue National Park has a global floristic potential of 726 species. The families with the highest number of plant species are: Poaceae: 43 species; Fabaceae: 26 species; Rubiaceae: 13 species; Asteraceae: 11 species; Caesalpiniaceae: 10 species. There are mainly 12 plant formations. These plants include: *Anogeissus leiocarpus*; *Terminalia spp.*; *Isoberrlinia spp.*; *Lophira lanceolata*; *Monotes kerstingii*; *Burkea Africana*; *Hymenocardia acida*; *Syzygium guineense*; *Boswellia papyrifera* high-altitude formation; *Azelia africana*; Grassy meadow; *Acacia spp.* Benoue National Park has a large concentration of diversified faunal species, including mammals; elephants (*Loxodonta Africana*), giant eland (*Tragelaphus derbianus*), *Potamocheorus africanus*, giraffe (*Giraffa camelopardalis*), Oribi (*Ourebia ourebi*), (Angwafo, 2006), and birds; francolin (*Francolinus bicalcaratus*), guinea fowl (*Numida meleagris*), turaco (*Tauraco leucolophus*) and Gambian goose (*Plectropterus gambensis*) (MINEF, 2002). There are many peripheral communities surrounding the park, including Gamba, Djaba, Guidjiba, Mboukma, and Tchollire (MINFOF, 2019)

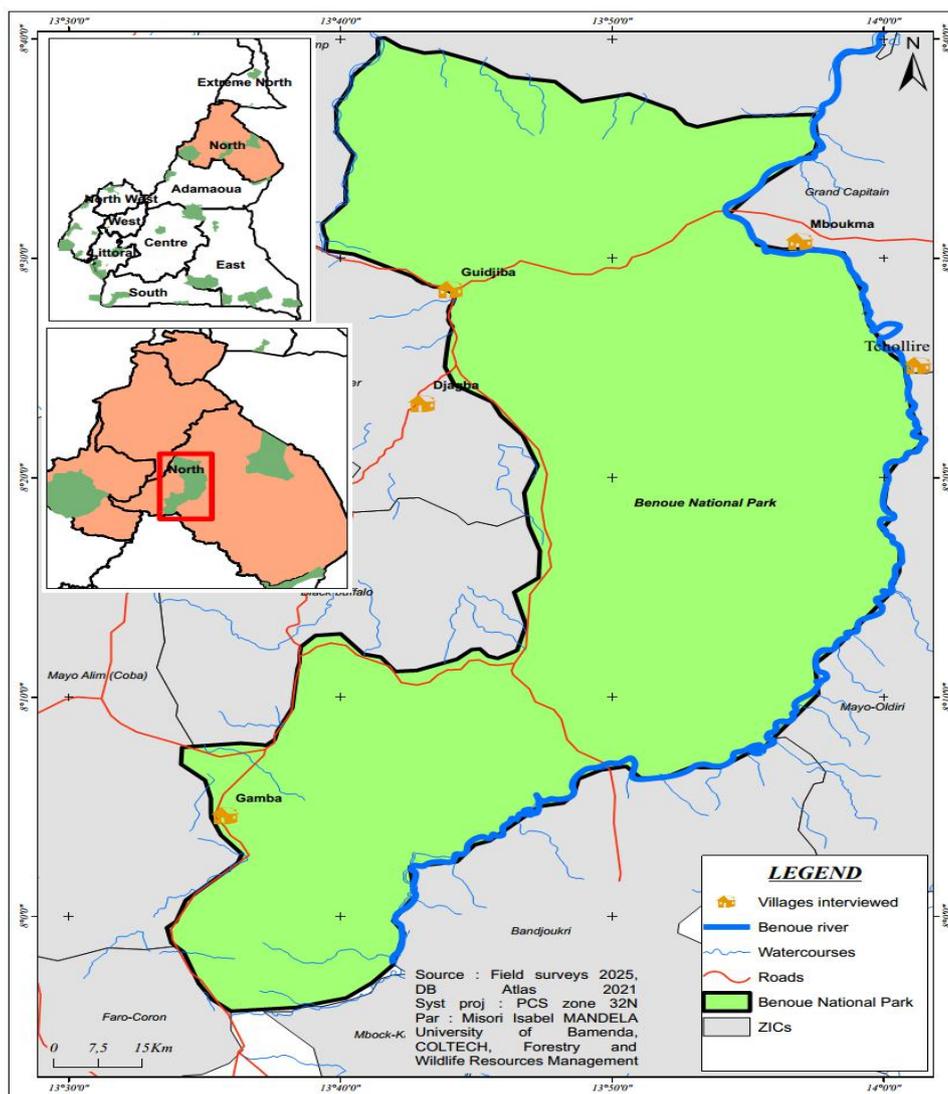


Fig.1: map of Cameroon, showing the Location map of Benoue National Park and sampled villages in the Northern Region of Cameroon (Map adapted from (MINFOE, 2005))

2.2. Data Collection

A qualitative study was conducted to assess the ecotourism potential of Benoue National Park because it captured respondents' views, values, and lived experiences (Harilal & Tichaawa, 2025; Santos et al., 2020). The research involved in-depth interviews with 34 respondents, including Eco guards (12), tourists (5) and local community members, working with the Conservation Service and Non-Governmental Organisations (17). The in-depth interviews were conducted from February to April 2024, with each interview lasting approximately 30 minutes. Respondents were asked to name the wildlife species they considered most attractive for ecotourism, threats and challenges

hindering ecotourism development, explain the strategies used to reduce these threats, and share their views on how these issues have affected tourist visits. All interviews were recorded and transcribed word-for-word, after which we applied thematic content analysis to the transcripts to identify key themes. This method is widely employed in tourism research, particularly for examining interview data (Walters, 2016), as it offers strong advantages in the interpretation of written texts (Nunkoo, 2020). Secondary data on the number of tourists and revenue were collected from the park's records and analysed descriptively, showing trends from the year 2018 to 2024.

III. RESULTS

3.1. Ecotourism Potentials of Benoue National Park

Benoue National Park's ecotourism appeal is deeply rooted in its rich assemblage of large, charismatic wildlife, particularly those inhabiting aquatic and savannah ecosystems. The hippopotamus (*Hippopotamus amphibius*) stands out as the park's flagship species, symbolising its strong ecotourism potential. The opportunistic recognition of Giraffes (*Giraffa camelopardalis*), Bouffon's cob (*Kobus kob*), olive baboons (*Papio Anubis*), and other iconic species, such as elephants (*Loxodonta Africana*), buffaloes (*Syncerus caffer*), hartebeests (*Alcelaphus buselaphus major*), and duikers (*Sylvicapra grimmia*), further reflects the park's rich biodiversity. These findings suggest that Benoue National Park offers a compelling wildlife experience that can be leveraged to attract nature-based tourism, provided that conservation and visitor infrastructure are effectively managed and maintained.

The only potential that attracts most tourists to Benoue National Park is the presence of mammals in the park. Hippopotamuses are the animals that tourists must see when they visit the park because their habitat is fixed and known. Giraffes and Baboons can be luckily spotted because they usually move across the road to the Buffle Noir camp (tourist camp) (Ecoguard 1).

Benoue National Park is diversified with mammal species such as Hippopotamus, Giraffes and Antelopes. There are equally signs of Lions and Elephants but it is rare because they relocated to Bouba Ndjidda and Faro National Park. The landscape of the park is equally good because of the presence of Mount Gona and the small waterfall with distinct rocks found at the Benoue River behind Buffle Noir. The cultural assets of the peripheral villages around the park are diversified but underexplored. There exist heritage assets such as the architectural typology of huts and roofs, and the folkloric diversity of villages. Crafts practised by the population can be displayed at the park's entrance to be viewed and bought by tourists, thus providing a source of income to the population (NGO 1).

The presence of the Big Five Mammals in the park makes the park a potential ecotourism site. I had the opportunity of viewing the Hippopotamus and Giraffes, and I am happy about it. I have been told that there are Antelopes such as Bouffon's cob, western hartebeest duikers. I was equally informed that there used to be lots of Elephants

and Lions, but they were either killed by poachers or relocated to other parks (Tourist 1).

Safari tourism is the primary activity undertaken by visitors to Benoue National Park. This suggests that wildlife viewing and nature exploration are the park's main draws for ecotourism. In addition to safaris, several respondents noted hunting, specifically within designated hunting zones, highlighting the park's dual role in conservation and regulated sport hunting. A few responses also mentioned picnicking, suggesting that some tourists engage in leisure and recreational activities alongside wildlife experiences.

Animal viewing is the primary activity carried out by tourists when they visit the park (Eco guard 2)

I observed the hippopotamus and crocodiles. I wished I had the opportunity of viewing other animals (Tourists 2)

3.2. Threats and challenges hindering ecotourism development in Benoue National Park

The presence of threatening activities in Benoue National Park reveals a broad consensus that the park faces multiple threats stemming from human activities. These threats include poaching, transhumance (seasonal livestock migration), and gold digging, which contribute to habitat degradation and wildlife disturbance. Kidnapping and insecurity highlight serious safety concerns that affect both conservation efforts and tourism. Additionally, illegal wood exploitation, fishing, and hunting, as well as agricultural encroachment and wildlife-related destruction of farmlands, intensify human-wildlife conflict.

Benoue National Park has always faced threats ranging from poaching, transhumance, and gold digging, which the park has been managing. Kidnapping has been difficult to manage because most of the kidnappers come from neighbouring countries such as Central Africa and Niger, who collaborate with some community members, making it difficult to manage (Eco guard 3).

Several recurring accommodation challenges are faced by tourists visiting Benoue National Park, including poor road conditions, particularly during the rainy season, which hinder accessibility to key sites. Visitors also encounter dilapidated or abandoned infrastructure, especially at popular locations like Buffle Noir, limiting comfort and convenience. The long distance between tourist sites

and nearby towns creates logistical difficulties, including food shortages when trips are poorly planned. Additionally, harsh weather conditions during the dry season and a shortage of trained tourist guides further diminish the quality of the visitor experience. These factors collectively pose significant barriers to tourism growth and satisfaction in the park.

Accommodation facilities at the tourist camp are poor, with no outdated infrastructures, and no stores around to get accessories when needed, which shortens our stay (Tourist 3).

3.3. Strategies for ecotourism development used by the authorities of Benoue National Park

A key strategy in Benoue National Park is the implementation of anti-poaching patrols, led by the park staff in partnership with the Wildlife Conservation Society, which focus on curbing illegal hunting and resource exploitation. Continuous surveillance, including 24-hour patrols, and the arrest of trespassers engaged in illicit activities are also central enforcement measures. Involving locals in the anti-patrol activities is a good insight, which also acts as a source of employment. In addition to security interventions, community engagement efforts such as sensitisation campaigns, education, and the development of peripheral villages through water access and economic opportunities aim to foster local stewardship. These combined efforts reflect a strategy that balances law enforcement with inclusive conservation and socio-economic development.

Anti-poaching patrols by Eco guards and Wildlife Conservation Society (Eco guard 4)

Non-Governmental Organisations carry out a lot of environmental education and sensitisation campaigns (NGO 2)

Key recommended strategies by respondents include partnering with more Non-Governmental Organisations to promote ecotourism and development, and constructing accessible roads in the park to improve tourist mobility and park surveillance. Respondents unanimously emphasised the need to increase the number of park rangers, particularly by recruiting individuals from peripheral villages who are familiar with the park's terrain and dynamics. They also expressed the need for long-term income-generating activities such as animal breeding and ranching to reduce reliance on

illegal practices like gold digging. Additional recommended strategies include reconstructing tourist facilities and donating equipment to support park operations. Maintaining camping sites, because the most frequently visited site by tourists within the park is Buffle Noir and its periphery, particularly due to the presence of iconic wildlife such as hippopotamuses and crocodiles and its accessibility. All respondents confirmed that several previously popular tourist sites are no longer accessible. Notably, Bel Eland Camp, which was destroyed in 2012 following an attack by poachers and is now avoided due to a high concentration of snakes. Grand Capitaine Camp, which has been rendered off-limits due to security concerns, including incidents of kidnapping. Other sites mentioned as lost or restricted include the residence of the former President of the Republic of Cameroon and the surrounding areas near the hippopotamus habitat. These closures reflect the impact of insecurity and environmental degradation on tourism infrastructure and accessibility within the park.

Continuous partnership with Non-Governmental Organisations such as Wildlife Conservation Society (WCS) and Gesellschaft fur Internationale Zusammenarbeit GmbH (GIZ) and International Union of Conservation of Nature (IUCN), because the government cannot provide funds to manage the park (Eco guard 5)

Recruit workers from surrounding communities (NGO, 3)

3.4. Effects of threats on tourists' attendance and revenue generated from 2018-2024 in Benoue National Park

Threat-related activities have had a noticeable impact on tourism in Benoue National Park, though awareness of this impact varies among respondents. While several participants expressed uncertainty regarding cancellations and their financial consequences, a significant portion confirmed that visits and bookings have indeed been cancelled due to threats and insecurity. Those who acknowledged cancellations consistently linked them to reduced ticket sales and revenue losses for tourism businesses caused by fluctuating visitor trends over the past years, with periods of both increase and decline. The majority of respondents, precisely Eco guards, noted a decline in tourist numbers linked to poor infrastructure, scarcity of wildlife, insecurity, financial constraints and lack of maintenance funding from the Ministry of Forestry and Wildlife. Notably,

the COVID-19 pandemic caused a temporary drop in 2020 because of the global lockdown, which prevented the movement of tourists globally and thus resulted in a limited number of tourist arrivals into the country. Conversely, tourist and community members working with the park authorities and Non-Governmental Organisations observed a recent resurgence in visitors from 2023 to 2024, attributing it to the return of animals, improved security, and better road accessibility because of the improved

management strategy currently implemented in the park.

Reduced number of tourists and revenue losses from tourism business (Eco guard 6)

Improved anti-poaching patrols have reduced threats and led to the return of animals, which has equally increased the number of tourists this year compared to 2021 and 2022 (Eco guard 7)

I don't know (NGO, 4)

Table 1: Evolution of ecotourism activities from 2018-2024 in Benoue National Park (Recorded data from Benoue National Park)

Year	Number of tourists	Entry Fee Revenue (FCFA)	Car Use Revenue (FCFA)	Camera Use Revenue (FCFA)	Lodging Payment Revenue (FCFA)	Total Revenue (FCFA)
2018	34	225000	38000	22000	90000	375000
2019	21	105000	18000	12000	0	135000
2020	8	45000	4000	10000	15000	74000
2021	13	80000	10000	12000	45000	147000
2022	13	100000	12000	24000	60000	196000
2023	21	168000	10000	14000	270000	462000
2024	19	235000	14000	2000	345000	596000

Data from Benoue National Park between 2018 and 2024 reveals fluctuating trends in revenue. Tourist visits dropped sharply in 2020, likely due to the COVID-19 pandemic, to only 8, leading to a drop in total tourist revenue to 74000 FCFA. In 2024, total revenue increased to its highest at 596,000 FCFA, but not enough to manage park resources (Table 1). The revenue from ecotourism activities in Benoue National Park is obtained from entry fees, car use during tours, camera use and lodging. Revenue

obtained from Lodging is directed to the Ministry of Tourism and Leisure. Entry fees appear as the primary source of income, consistently contributing the largest share each year. While entry fee revenue fluctuated slightly in earlier years, it rose significantly to 90% in 2024. In contrast, car use and camera use revenues declined over time, with camera use dropping from 10-17% in earlier years to just 1% in 2024, and car use falling to 2% (Table 2).

Table 2: Proportions of Revenue Breakdown by Source from 2018-2024 in Benoue National Park

Year	Entry Fee (%)	Car use (%)	Camera Use (%)	Lodging Payment (%)
2018	60	10	6	24
2019	78	13	9	0
2020	61	5	14	20
2021	54	7	8	31
2022	51	6	12	31
2023	36	2	4	58
2024	39	2	1	58

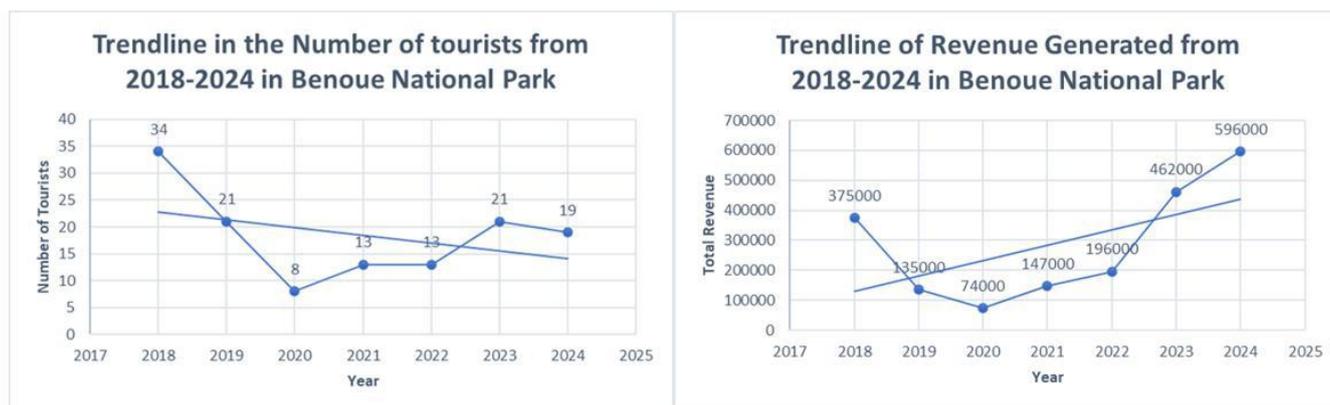


Fig 2: Tourists' attendance and revenue generated in Benoue National Park

IV. DISCUSSION

The results of this study highlight the strong ecotourism appeal of Benoue National Park, which is rooted in its rich diversity of large and charismatic wildlife. The hippopotamuses emerge as the park's flagship species; a role commonly associated with animals that are both ecologically significant and visually compelling. This aligns with global ecotourism trends, where megafauna serve as key attractions for nature-based tourism, especially in South Africa (Lindsey et al., 2007b). Giraffes and crocodiles also featured prominently, reinforcing their experiential and aesthetic value to visitors. These findings are consistent with Moussa (2022), who describes Benoue National Park as an "ecotourism place by excellence endowed with exceptional natural wealth in Central Africa," highlighting its biodiversity and scenic landscapes as central to its tourism potential. The frequent mention of species such as Bouffon's cob, baboons, elephants, buffaloes, hartebeests, and duikers further reflects the park's ecological richness. According to the National Park Association, visitors to Benoue National Park can expect to see an impressive variety of wildlife, including elephants, buffalo, hippos, and crocodiles. The park is also home to several species of antelope, such as the majestic giant eland, waterbuck, and hartebeest (National Parks Association, 2023). Safari tourism was identified as the primary activity in Benoue National Park, consistent with patterns observed in other African parks where wildlife viewing dominates visitor interest (Stone & Stone, 2024). The presence of regulated hunting zones adds a layer of complexity, positioning Benoue National Park as a site of both conservation and controlled

sport hunting. While this dual role may raise ethical debates between conservation Non-Governmental Organisations and African governments concerning the acceptability and effectiveness of trophy hunting as a conservation tool, Trophy hunting is of major importance to conservation by creating economic incentives for conservation over vast areas (Lindsey et al., 2007a).

Benoue National Park faces a complex mix of ecological and infrastructural threats. These pressures significantly hinder both conservation efforts and the development of ecotourism. Our findings confirm that poaching, transhumance, gold digging, and insecurity are among the most pressing threats to Benoue National Park. These activities contribute to habitat degradation, wildlife disturbance, and reduced tourist safety. Poaching and transhumance are persistent threats, exacerbated by porous borders and limited enforcement capacity. Similar threats affecting ecotourism development were reported in Waza National Park (Tumenta et al., 2023; Tumenta et al., 2021). Insecurity, including incidents of kidnapping and restricted access to formerly popular sites such as Bel Eland Camp and Grand Capitaine Camp, poses serious risks to both tourists and conservation personnel. These safety concerns mirror conditions in Waza National Park, where porous borders and regional instability have led to similar declines in tourism and ranger effectiveness (Scholte, 2021) and in Bouba Ndjidda National Park, where insecurity: kidnapping and armed conflicts have led to disorganisation of touristic activities, manifestation of fear of insecurity by the tourist and the degradation of nature resources (Gnapou et al., 2023). Infrastructural

challenges in Benoue National Park, such as poor road conditions, abandoned facilities, and logistical difficulties, also diminish the visitor experience. Sites like Buffle Noir, despite their ecological significance, suffer from neglect and limited accessibility. These issues are echoed in Campo Ma'an National Park, where poorly developed roads, inadequate lodging, no ecotourism development plan, and low revenue have stalled ecotourism development despite the park's rich biodiversity and coastal location (Forje et al., 2021).

Mitigation strategies used by the authorities of Benoue National Park include anti-poaching patrols, community sensitisation, and creating employment and economic opportunities for communities. This aligns with sustainable practices such as creating employment opportunities for communities, promoting environmental conservation through furniture making, land rehabilitation, indigenous tree plantations, water management activities, alien invasive control, fire management, and poaching control that are observed in South Africa's Kruger National Park, where the tourism industry is criticised for its unsustainable practices and exploitative proclivities (Mabibibi et al., 2023). Reported recommended strategies include partnering with more non-governmental organisations to promote ecotourism and development, constructing accessible roads in the park to improve tourist mobility, and park surveillance, reconstructing tourist facilities, and donating equipment to support park operations. At Campo Ma'an National Park, similar strategies, such as maintenance and development of roads and tracks, developing public-private partnerships, and providing training both to park workers and community members on ecotourism development, were recommended to be adopted and implemented for ecotourism development (Forje et al., 2021).

Threat-related activities, infrastructure challenges, and institutional support have significantly influenced tourist attendance in Benoue National Park. The fluctuating visitor trends are marked by periods of growth, decline, and partial recovery. From 2023 to 2024, the park experienced increased visitation due to active promotion by conservation services. This aligns with studies from Waza National Park, where Scholte (2021) observed that

targeted conservation campaigns and wildlife monitoring efforts led to short-term boosts in tourism. However, like Benoue National Park, Waza's progress was disrupted by insecurity and lack of sustained funding, resulting in reduced tourist arrivals and operational setbacks. The impact of insecurity, including kidnapping and poaching, on ecotourism is particularly severe in Benoue National Park. These threats have led to the disappearance of iconic species such as elephants and lions, which attracted tourists and rendered several iconic camping sites, such as Bel Eland Camp and Grand Capitaine Camp, inaccessible. Similar patterns are observed in Nigeria, where the impact of insecurity on Ecotourism has led to habitat loss, pressure on wildlife resources, negative images of tourist destinations, and attacks on park officials (Okeyoyin, 2022). Also, at Bouba Ndjidda National Park, it was reported that insecurity disorganised the ecotourist activities, causing a reduction in the number of international tourists, discouraging the local and international tourists as well as the interest of potential investors, wildlife criminality and disappearance of some species (Gnapou et al., 2023). The COVID-19 pandemic also played a role in Benoue National Park's tourism trajectory, causing a temporary drop in 2020. Domestically, the government of Cameroon did not enforce extended lockdown measures in response to the COVID-19 pandemic. Citizens were generally permitted to travel and visit public places and tourist attractions, with minimal restrictions affecting internal mobility, but the global lockdown and travel restrictions prevented the movement of international tourists (Harilal & Tichaawa, 2025).

V. CONCLUSION

The findings of this study affirm Benoue National Park's status as a potential ecotourism destination in Northern Cameroon, anchored by the presence of iconic megafauna. The hippopotamus, giraffe, crocodile, and a wide array of antelope species not only enhance the park's ecological value but also serve as powerful draws for nature-based tourism. This aligns with global ecotourism models where charismatic wildlife plays a central role in attracting visitors and generating conservation revenue. Safari tourism, identified as the dominant activity in

Benoue National Park, reflects broader trends across African parks, where wildlife viewing remains the cornerstone of ecotourism. The inclusion of regulated hunting zones introduces a nuanced conservation model that balances ecological preservation with economic incentives. While trophy hunting remains controversial, evidence suggests it can contribute meaningfully to conservation funding and land protection when properly managed.

The threats facing Benoue National Park are emblematic of broader challenges confronting protected areas across Cameroon. The convergence of ecological pressures such as poaching, transhumance, and gold digging with infrastructural deficiencies and insecurity has created a barrier to both conservation and ecotourism development. These threats not only degrade habitats and disrupt wildlife populations but also compromise visitor safety and diminish the quality of the tourism experience. The variation of tourist attendance illustrates the fragile balance between conservation success and external threats that shape ecotourism outcomes. While active promotion and wildlife monitoring efforts between 2023 and 2024 led to increased visitation, this momentum was still undermined by persistent insecurity and infrastructural limitations. The disappearance of iconic species like elephants and lions, coupled with the closure of key camping sites due to safety concerns, limits the park's potential. The mitigation strategies employed by the Park's authorities reflect a progressive and inclusive approach to ecotourism development and biodiversity protection. By combining anti-poaching patrols, community sensitisation, and economic empowerment initiatives, Benoue National Park is aligning itself with global best practices that emphasise sustainability and local participation. The parallels with South Africa's Kruger National Park, where community employment and environmental stewardship are central pillars, underscore the effectiveness of integrating conservation with socio-economic development. The recommendations to expand partnerships with non-governmental organisations, improve infrastructure, and enhance park surveillance are not only practical but essential for scaling Benoue National Park's ecotourism potential. These strategies mirror successful models from Campo Ma'an National Park, where road

maintenance, public-private collaboration, and capacity-building have been identified as key drivers of ecotourism growth. Sustainable ecotourism in Benoue National Park depends on a holistic framework that balances ecological integrity with community welfare and institutional support. Long-term success will require continued investment in infrastructure, inclusive governance, and adaptive and sustainable management that responds to evolving threats and opportunities.

ACKNOWLEDGMENT

We are deeply grateful to the Conservator of Benoue National Park for research permission and continuous support. Our gratitude is expressed to IDEAWILD Equipment Grant that enabled fieldwork during which data were collected for this study. We warmly thank the Park staff, tourists and community members working with park authorities and Non-Governmental Organisations for their consent, hospitality, and local ecological knowledge.

REFERENCES

- [1] Agrawal, A., & Gopal, K. (2013). Protected Areas in Relation to Marine Parks and Sanctuaries. In A. Agrawal & K. Gopal, *Biomonitoring of Water and Waste Water* (pp. 85-92). Springer India. https://doi.org/10.1007/978-81-322-0864-8_8
- [2] Ambo, F. B., Frederick, N., & Tata, T. H. (2022). Assessment of ecotourism potentials in the north west region of Cameroon. *Earth Sciences*, 11(5), 250-259.
- [3] Angwafo, T. E. (2006). *Status of Wildlife and its Utilisation in Faro and Benoué National Parks North Cameroon: Case study of the Derby Eland (Taurotragus derbianus gigas Gray, 1947) and the African Wild Dog (Lycaon pictus Temminck, 1840)*. Faculty of Environmental Resources and Process Engineering. BTU- Cottbus, Siemens & Halske Ring 8, Postfach 101344. D-03013.
- [4] Atchombou, J. B., Shidiki, A. A., Tchamba, M. N., & Alexis, K. S. (2023). Opinion of Stakeholders on the Management of Ecotourism in the Benue National Park of the North Region of Cameroon. *Open Journal of Forestry*, 13(01), 92-109. <https://doi.org/10.4236/ojf.2023.131007>
- [5] Atchombou, J. B., Shidiki, A. A., Tchamba, M. N., Alexis, K. S., & Malik, A. A. (2022). Ecotourism an approach to the sustainable conservation of biodiversity in the Benue national park of the North Region of Cameroon. *International Journal of Forest,*

- Animal And Fisheries Research*, 6(1), 18–26. <https://doi.org/10.22161/ijfaf.6.1.3>
- [6] Awazi, N. P. (2025a). National parks in Cameroon and the in-situ conservation of threatened flora and fauna species: Governance and policy paradigms. *Discover Conservation*, 2(1), 6. <https://doi.org/10.1007/s44353-025-00026-2>
- [7] Awazi, N. P. (2025b). The Mountain Ecosystems of Cameroon: Bleak or Promising Future in the Face of Anthropogenic and Climatic Threats? In W. Leal Filho, N. Matandirotya, D. Yayeh Ayal, J. M. Luetz, & B. Borsari (Eds), *Climate Change, Food Security, and Land Management* (pp. 1–20). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-71164-0_69-1
- [8] Backman, K. F., & Munanura, I. (2015). Introduction to the special issues on ecotourism in Africa over the past 30 years. *Journal of Ecotourism*, 14(2–3), 95–98. <https://doi.org/10.1080/14724049.2015.1128058>
- [9] Birdlife International. (2025). *BirdLife International (2025) Site factsheet*: . Downloaded from <https://datazone.birdlife.org/site/factsheet/b%C3%A9nou%C3%A9-national-park> on 28/06/2025.
- [10] Blanco-Cerradelo, L., Diéguez-Castrillón, M. I., Fraiz-Brea, J. A., & Gueimonde-Canto, A. (2022). Protected Areas and Tourism Resources: Toward Sustainable Management. *Land*, 11(11), 2059. <https://doi.org/10.3390/land11112059>
- [11] Cheia, G. (2013). Ecotourism: Definition and concepts. *Revista de Turism-Studii Și Cercetări În Turism*, 15, 56–60.
- [12] Climate-data. (2025). *Climate & Weather Averages in Garoua, Cameroon*. Time and Date. <https://www.timeanddate.com/weather/cameroon/garoua/climate>
- [13] Cossengue, P. R., Brea, J. F., & Tavares, F. O. (2025). The Transformative Power of Ecotourism: A Comprehensive Review of Its Economic, Social, and Environmental Impacts. *Land*, 14(8), 1531. <https://doi.org/10.3390/land14081531>
- [14] Agrawal, A., & Gopal, K. (2013). Protected Areas in Relation to Marine Parks and Sanctuaries. In A. Agrawal & K. Gopal, *Biomonitoring of Water and Waste Water* (pp. 85–92). Springer India. https://doi.org/10.1007/978-81-322-0864-8_8
- [15] Ambo, F. B., Frederick, N., & Tata, T. H. (2022). Assessment of ecotourism potentials in the north west region of Cameroon. *Earth Sciences*, 11(5), 250–259.
- [16] Angwafo, T. E. (2006). *Status of Wildlife and its Utilisation in Faro and Benoué National Parks North Cameroon: Case study of the Derby Eland (Taurotragus derbianus gigas Gray, 1947) and the African Wild Dog (Lycaon pictus Temminck, 1840)*. Faculty of Environmental Resources and Process Engineering. BTU- Cottbus, Siemens & Halske Ring 8, Postfach 101344. D-03013.
- [17] Atchombou, J. B., Shidiki, A. A., Tchamba, M. N., & Alexis, K. S. (2023). Opinion of Stakeholders on the Management of Ecotourism in the Benue National Park of the North Region of Cameroon. *Open Journal of Forestry*, 13(01), 92–109. <https://doi.org/10.4236/ojf.2023.131007>
- [18] Atchombou, J. B., Shidiki, A. A., Tchamba, M. N., Alexis, K. S., & Malik, A. A. (2022). Ecotourism an approach to the sustainable conservation of biodiversity in the Benue national park of the North Region of Cameroon. *International Journal of Forest, Animal And Fisheries Research*, 6(1), 18–26. <https://doi.org/10.22161/ijfaf.6.1.3>
- [19] Awazi, N. P. (2025a). National parks in Cameroon and the in-situ conservation of threatened flora and fauna species: Governance and policy paradigms. *Discover Conservation*, 2(1), 6. <https://doi.org/10.1007/s44353-025-00026-2>
- [20] Awazi, N. P. (2025b). The Mountain Ecosystems of Cameroon: Bleak or Promising Future in the Face of Anthropogenic and Climatic Threats? In W. Leal Filho, N. Matandirotya, D. Yayeh Ayal, J. M. Luetz, & B. Borsari (Eds), *Climate Change, Food Security, and Land Management* (pp. 1–20). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-71164-0_69-1
- [21] Backman, K. F., & Munanura, I. (2015). Introduction to the special issues on ecotourism in Africa over the past 30 years. *Journal of Ecotourism*, 14(2–3), 95–98. <https://doi.org/10.1080/14724049.2015.1128058>
- [22] Birdlife International. (2025). *BirdLife International (2025) Site factsheet*: . Downloaded from <https://datazone.birdlife.org/site/factsheet/b%C3%A9nou%C3%A9-national-park> on 28/06/2025.
- [23] Blanco-Cerradelo, L., Diéguez-Castrillón, M. I., Fraiz-Brea, J. A., & Gueimonde-Canto, A. (2022). Protected Areas and Tourism Resources: Toward Sustainable Management. *Land*, 11(11), 2059. <https://doi.org/10.3390/land11112059>
- [24] Cheia, G. (2013). Ecotourism: Definition and concepts. *Revista de Turism-Studii Și Cercetări În Turism*, 15, 56–60.
- [25] Climate-data. (2025). *Climate & Weather Averages in Garoua, Cameroon*. Time and Date. <https://www.timeanddate.com/weather/cameroon/garoua/climate>
- [26] Cossengue, P. R., Brea, J. F., & Tavares, F. O. (2025). The Transformative Power of Ecotourism: A Comprehensive Review of Its Economic, Social, and Environmental Impacts. *Land*, 14(8), 1531. <https://doi.org/10.3390/land14081531>
- [27] Cyrille, N. J., Kevin, M. M. J. P., & Sylvain, A. D. (2025). Influences of Human Activities on the Vegetation Cover of the Protected Area Complex in the North Cameroon Region. *Natural Resources*, 16(03), 45–58. <https://doi.org/10.4236/nr.2025.163003>

- [28] Dudley, N., & Phillips, A. (2006). Forests and Protected Areas: Guidance on the use of the IUCN protected area management categories. *Gland, Switzerland: IUCN*, 12.
- [29] Forje, G. W., Tchamba, M. N., & Eno-Nku, M. (2021). Determinants of ecotourism development in and around protected areas: The case of Campo Ma'an National Park in Cameroon. *Scientific African*, 11, e00663. <https://doi.org/10.1016/j.sciaf.2020.e00663>
- [30] Gadinga, W. F., Tchamba, N. M., Barnabas, N. N., Nyong, P. A., Chimi, C. D., Diabe, E. S., & Reeves, M. F. (2020). Assessing the impact of ecotourism on livelihood of the local population living around the Campo Maan National Park, South Region of Cameroon. *Journal of Hospitality Management and Tourism*, 11(1), 1–11. <https://doi.org/10.5897/JHMT2020.0280>
- [31] Gadinga, W. F., Tchamba, N. M., & Eno-Nku, M. (2020). An appraisal of ecotourisms impact on biodiversity conservation: The case of Campo Maan National Park, Cameroon. *International Journal of Biodiversity and Conservation*, 12(2), 142–152. <https://doi.org/10.5897/IJBC2020.1420>
- [32] Gnapou, D., Toumba, D., Pahimi, A. L., Amedep, D., & Wang-Bara, B. (2023). Impact of Insecurity on the Conservation of Wildlife in the National Parc of Bouba Ndjidda and Eco-Touristic Frequentation. *International Journal of Advanced Multidisciplinary Research and Studies*, 3(1), 471–476.
- [33] Harilal, V., & Tichaawa, T. (2025). Regeneration of ecotourism in Cameroon: Geopolitical conflict, crisis, and conservation. *Journal of Ecotourism*, 24(2), 136–157. <https://doi.org/10.1080/14724049.2024.2372112>
- [34] Harilal, V., & Tichaawa, T. M. (2018). Ecotourism and alternative livelihood strategies in Cameroon's protected areas. *EuroEconomica*, 37(2), 133–148.
- [35] Heywood, V. H., & Dulloo, M. E. (2005). *In Situ Conservation of Wild Plant Species: A Critical Global Review of Good Practices*. International Plant Genetic Resources Institute, Technical Bulletin.
- [36] Lambi, C. M., Kimengsi, J. N., Kometa, C. G., & Tata, E. S. (2012). The Management and Challenges of Protected Areas and the Sustenance of Local Livelihoods in Cameroon. *Environment and Natural Resources Research*, 2(3), p10. <https://doi.org/10.5539/enr.v2n3p10>
- [37] Lindsey, P. A., Alexander, R., Mills, M. G. L., Romañach, S., & Woodroffe, R. (2007). Wildlife Viewing Preferences of Visitors to Protected Areas in South Africa: Implications for the Role of Ecotourism in Conservation. *Journal of Ecotourism*, 6(1), 19–33. <https://doi.org/10.2167/joe133.0>
- [38] Lindsey, P. A., Roulet, P. A., & Romañach, S. S. (2007). Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. *Biological Conservation*, 134(4), 455–469. <https://doi.org/10.1016/j.biocon.2006.09.005>
- [39] Lu, D., Wang, X., & Zhang, H. (2022). Tourism Research on National Parks and Protected Areas. In Y. Luo, H. Zhang, J. Jiang, D. Bi, & Y. Chu (Eds), *Tourism, Aviation and Hospitality Development During the COVID-19 Pandemic* (pp. 219–243). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-1661-8_14
- [40] Luo, X., Huang, Z., & Wang, L. (2024). Assessing the Recreational Resource Value of National Park Based on Visitor Perception—A Case of Three-River-Source National Park in China. *Land*, 13(11), 1882. <https://doi.org/10.3390/land13111882>
- [41] Mabibibi, M. A., Dube, k, & Thwala, K. C. (2023). *Determining South African National Parks' Contribution to Sustainable Development Goals in Host Communities: A Case Study of Kruger National Park*. Vaal University of Technology, South Africa.
- [42] Mboutcheu, C. (2022). Ecotourism potential of Bawan and Banda around the Bénoué National Park (Northern Cameroon). *Université de Yaoundé I*. <https://revues.acaref.net/wp-content/uploads/sites/3/2022/05/Clemence-MBOUTCHEU.pdf>
- [43] MINEF. (2002). *Ministère de l'environnement et des forêts Parc National de la Bénoué: Plan d'Aménagement du Parc et de sa zone périphérique. Programme de conservation et de gestion de la biodiversité au Cameroun, WWF/SNV/MINEF, Yaoundé. 97p + Annexes*.
- [44] MINFOF. (2019). *Development Plan for the Benue National Park and Its Peripheral Zone*. Ministry of Forestry and Wildlife.
- [45] Mnini, P., & Ramoroka, T. (2020). Challenges of ecotourism and poverty alleviation in South Africa. *International Journal of Economics and Finance Studies*, 12(2), 184–197.
- [46] Moussa, M. (2022). Ecotourism and sustainable development in the Benoué National Park. *Centre National d'Éducation, MINRESI, Cameroun*. <https://www.revues.acaref.net/wp-content/uploads/sites/3/2022/03/Moise-MOUSSA.pdf>
- [47] National Parks Association. (2023). *Benoue National Park*. Retrieved from <https://nationalparksassociation.org/cameroon-national-parks/benoue-national-park/>.
- [48] Nunkoo, R. (Ed.). (2020). *Handbook of research methods for tourism and hospitality management* (Paperback edition). Edward Elgar Publishing.
- [49] Okeyoyin, A. (2022). *Ecotourism And Wildlife Management Amidst Insecurity And Global Pandemic*. 536–545.
- [50] Onana, J. M., Fobane, J. L., Biye, E. H., Tchatchouang, E. N., & Mbolu, M. M. A. (2019). Natural habitats of

- the ecosystems of Cameroon. *International Journal of Biological and Chemical Sciences*, 13(7), 3247–3265.
- [51] Pennaz, A., Ahmadou, M., Moritz, M., & Scholte, P. (2018). Not Seeing the Cattle for the Elephants: The Implications of Discursive Linkages between Boko Haram and Wildlife Poaching in Waza National Park, Cameroon. *Conservation and Society*, 16(2), 125. https://doi.org/10.4103/cs.cs_16_153
- [52] Rhama, B., Timang, J. H., Palangka, J. R., & Raya, K. P. (2020). The meta-analysis of Ecotourism in National Parks. African. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1–17.
- [53] Sama, G. L., & Molua, E. L. (2019). Determinants of Ecotourism Trade in Cameroon. *Natural Resources*, 10(06), 202–217. <https://doi.org/10.4236/nr.2019.106014>
- [54] Santos, K. D. S., Ribeiro, M. C., Queiroga, D. E. U. D., Silva, I. A. P. D., & Ferreira, S. M. S. (2020). The use of multiple triangulations as a validation strategy in a qualitative study. *Ciência & Saúde Coletiva*, 25(2), 655–664. <https://doi.org/10.1590/1413-81232020252.12302018>
- [55] Scholte, P. (2021). Waza National Park: The impact of insecurity on tourism and conservation. *Aires Protégées d'Afrique Centrale - État 2020*. https://www.researchgate.net/publication/355153023_Waza_National_Park_the_impact_of_insecurity_on_tourism_and_conservation.
- [56] Stone, M. T., & Stone, L. S. (2024). Safari Tourism. In J. Jafari & H. Xiao (Eds), *Encyclopedia of Tourism* (pp. 897–898). Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-74923-1_387
- [57] Sylvain, A. D., Cyrille, N. J., & Bertille, M. N. (2018). Evaluation of the Advanced Mining Front Craft in and around National Parks of the Benue and Bouba-Ndjidda in North Cameroon. *Journal of Geographic Information System*, 10(04), 461–475. <https://doi.org/10.4236/jgis.2018.104024>
- [58] Tchindjang, M., Abossolo, S. A., Armathée, J., & Menga, V. F. (2006). The challenges of developing ecotourism in the protected areas of Cameroon. *Boletim Goiano de Geografia*, 26(2), 12–47.
- [59] Tumenta, P., Croes, B. M., Bertola, L. D., Adam, S., Kagalang, D., Loth, P., & De longh, H. H. (2023). *Strategies to restore Waza National Park, Cameroon, an important lion stronghold*. 77, 23-28 Strategies to restore Waza National Park, Cameroon, an important lion stronghold.
- [60] Tumenta, P. N., Croes, B. N., Bertola, L. D., Adam, S., Kagalang, D., Kamgang, S., & de longh, H. (2021). *Assessment of antelope populations, the prey base of lions, and human encroachment in Waza National Park, Cameroon, April-July 2021*. 9.
- [61] Upadhaya, S., Tiwari, S., Poudyal, B., Godar Chhetri, S., & Dhungana, N. (2022). Local people's perception of the impacts and importance of ecotourism in Central Nepal. *PLOS ONE*, 17(5), e0268637. <https://doi.org/10.1371/journal.pone.0268637>
- [62] Walters, T. (2016). Using Thematic Analysis in Tourism Research. *Tourism Analysis*, 21(1), 107–116. <https://doi.org/10.3727/108354216X14537459509017>
- [63] Xu, L., Ao, C., Liu, B., & Cai, Z. (2023). Ecotourism and sustainable development: A scientometric review of global research trends. *Environment, Development and Sustainability*, 25(4), 2977–3003. <https://doi.org/10.1007/s10668-022-02190-0>