

Collaborative Governance in Africa's National Parks: A Systematic Literature Review of Models and Practices

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ABSTRACT

Collaborative governance has emerged as a response to the weaknesses of centralized state-driven protectionist approaches in the governance of national parks. This paper explores in detail how collaborative governance is modelled in Africa's national parks; the factors that enable or hinder the successful implementation of collaborative governance models in Africa's national parks; and the effects that the implementation of collaborative governance models induces for fringe communities of those parks. The paper draws upon selected case studies in Africa and adopts Ansell and Gash's (2008) model of collaborative governance as a frame to analyze the cases. By sourcing data from various databases that publish work on protected areas, this analysis relied on only parks that have a form of collaborative governance in place, thus avoiding paper parks which lack such institutionalized and operationalized governance mechanisms. The results show that collaborative governance is modelled in three main ways depending on the level of power and responsibilities shared and the number of stakeholders involved in the collaboration process. These models include devolution, partnership and de-concentration. This analysis shows that the fringe communities with greater participation in decision-making processes observe more positive outcomes from collaboration, reflecting improved biodiversity, healthy human-wildlife interaction, and peaceful coexistence between park managers and local people. Furthermore, this paper observed that Non-Governmental Organizations' participation as negotiators for improved access to resources, and the provision of alternative livelihoods incentivize actors' adherence to the terms of collaboration. Further research on the limits of power each collaborator wields, and the legal frameworks on collaborative governance will be useful for sustaining the model of collaboration deployed within a particular park area. In summary, this paper contributes to the literature on the collaborative governance of protected areas in Africa.

Keywords: Collaborative governance, national parks, devolution, partnership, de-concentration

INTRODUCTION

The network of protected areas (PAs) across the globe has increased in number and scope, occupying about 15.4 per cent of the world's terrestrial land area. Furthermore, climate change and its impacts on the world continue to draw renewed attention to the contributions PAs make towards addressing this global phenomenon. Beyond the protection of biological resources, PAs are seen as opportunities to facilitate the development of sustainable livelihoods, particularly for fringe communities where they are located.

Although the number of PAs has increased globally, considerable gaps persist in their coverage of global biodiversity (Arneeth et al., 2023; Delso et al., 2021). Thus, significant attention has been directed toward strategically expanding the global network of protected areas. Notwithstanding the efforts to expand the coverage of PAs, existing ones face a multiplicity of risks from natural phenomena like drought, floods and wildfires, as well as anthropogenic imprints such as poaching, illegal logging, and bushfires (Bruku, 2016). Indeed, it is argued that many PAs have failed to achieve both the environmental and sustainable livelihood outcomes they are expected to generate (Yuan et al., 2024). Some scholars have opined that habitat loss from ecological regions globally exceeds the protection rate and the habitat connectivity in the Mediterranean region

for instance has decreased considerably (Yuan et al., 2024; Meng et al, 2023; Vieira-Alencar et al., 2023; Santiago-Ramos and Feria-Toribio, 2021).

In Africa, a total of 8,791 protected areas currently exist (UNEP-WCMC and IUCN, 2022). Out of these, national parks account for about 473 and are spread unevenly across the continent (UNEP-WCMC and IUCN, 2022). However, many of these national parks are struggling to achieve their conservation goals (Yuan et al., 2024; Ayivor et al, 2020). State policy, governance approach, financial and human resources, and bureaucratic problems have been identified as some of the factors limiting the achievement of these goals (Matshusa et al, 2021). At the local level, the isolation of fringe communities from the governance of national parks is impacting negatively on the ecological resources and also the communities' livelihood resources.

There is an increasing call for a new strategy in response to the justice and sustainability dilemmas particularly in terms of protecting livelihoods whilst upholding the ecological integrity of the national parks (Hoffmann, 2022; Tan, 2021; Ayivor et al, 2020). Many African countries are increasingly adopting collaborative governance as a working framework for the management of their national parks (UNEP-WCMC and IUCN, 2022; Ullah and Kim, 2020). However, the extent to which collaborative governance provisions are implemented varies across countries, and there are nuances in the management outcomes.

The conception of collaborative governance in the context of national parks in Africa, and its impact on these protected area frontiers has not received much research attention despite the increasing popularity and advocacy the approach has gotten. This paper contributes to filling this gap in knowledge by drawing on various case studies across the continent. Specifically, this paper contributes to the literature by answering the following questions: (1) How is collaborative governance modelled in Africa's national parks? (2) What factors facilitate/hinder effective collaborative governance in Africa's national parks? (3) How has collaborative governance impacted fringe communities of national parks in Africa?

LITERATURE REVIEW

The Changing Phases of National Parks Governance in Africa

Many national parks in Africa are generally classified as UNESCO World Heritage sites. The nature of these parks varies considerably between and within countries. There are marked variations in the degree of protection, accessibility and type of environment for which these parks are intended to deliver protection. The evolution of national parks in Africa moved from uninhabited parks to parks cleared of the original human population, and to parks with significant human populations (Mayele and Woja, 2022; Munro, 2021; Vayda, 2021). Likewise, the governance of national parks in Africa has evolved. The search for viable strategies for protected area governance in developing countries can be linked to the period of fence-and-fine also known as the American National Park model (Syaprianto et al., 2024; Kegamba et al., 2024). The need to amplify the ecological diversity of national parks has seen the adjustment of the fence-and-fine model to a Protected Area Outreach (PAO) model which promotes education of local communities and the sharing of some benefits (Fuchs, 2023). Increasing population, reduced state budgets, and the prioritization of economic and political interests over natural resources have resulted in major setbacks to biodiversity protection efforts. The search for a perfect or near-perfect governance approach for national parks in Africa continues today.

Centralized or Protectionist Phase

Some scholars have explained that the establishment of national parks in Africa was based on Western romanticized and idealized conceptions of nature, wherein human activity is entirely separated from non-human natures (Dominguez and Luoma, 2020). Drawing inferences from colonial Tanzania, studies have illustrated that the efforts of the British to preserve biological resources in national parks were contemporaneous with their efforts to enhance agrarian activities in the region (Noe et al., 2022; Bluwstein, 2021; Mgaya, 2020). The efforts to enhance agricultural production emphasize in this case the use of nature over its preservation. These processes of conservation and development mirrored the prevailing views of the landscape at the time (Holterman, 2020). The notion of separating nature from human activity informed protectionist and state-centralized governance of national parks in East Africa and also other areas of the

African Anglosphere at the time. In Kenya for instance, a centralized government-led top-down approach to protected area management was employed until about 2006 (Ndivo and Okech, 2020; Cockerill and Hagerman, 2020). In 1976, the government of Kenya enacted its first significant wildlife conservation legislation since gaining independence, known as the Wildlife Conservation and Management Act (WCMA). This legislation consolidated the Game Department and the Kenya National Parks Trustees into the Wildlife Conservation and Management Department, thereby centralizing the authority over wildlife and conservation areas under the national government (Cockerill and Hagerman, 2020). Such centralized schemes have since proliferated across many African countries in the late 1980s and early post-Cold war era.

Community-based Management Phase

The 1990s marked a significant turn towards community-based governance models in Africa's national parks (Tantoh, 2022; Kalvelage et al., 2021). Scholars of resource governance explained that this approach is often implemented in the form of Integrated Conservation and Development Projects (ICDPs) (Busck-Lumholt et al., 2022; Ndoye et al., 2021). Notable examples of such projects are the Communal Area Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe; the Luangwa Integrated Rural Development Programme (LIRDPA) in Zambia; the Community-based Wildlife Management (CWM) in Tanzania; the Botswana Community Trust Program; the Administrative Management Design for Game Management Areas (ADMAGE) in Zambia; the Living in a Finite Environment (LIFE) in Namibia; and the Selous Conservation Program (SCP) in Tanzania (Milupi et al., 2023; Mutanga, 2022; Shereni and Saarinen, 2021, Ullah and Kim, 2020). Despite the successes achieved in terms of addressing the shortcomings of the centralized and protectionist approach, the community-based governance model also had some notable limitations and therefore has not been successful in some places in Africa (Agyare et al., 2024; Stone and Stone, 2020). The literature points to low community participation as a fundamental cause of the failure of many ICDPs in Africa. Some environmentalists in Africa advocate for a hybrid model that combines the State centralized approach and the community-based approach as a way to complement the strengths of each of these models while minimizing their inherent weaknesses (Adeyanju et al., 2021; Ullah and Kim, 2020).

The Emergence of the Collaborative Governance Phase

Collaborative governance emerged as an alternative approach to the centralized and community-based approaches which have shown marked failures in certain parts of the continent. Other typologies of the collaborative governance approach are co-management, participatory management, joint management, shared management, partnership management, and multi-stakeholder management. The goal of this governance model is to create negotiated agreements between protected areas' managers and other interest groups such as local resource users (Koebele and Crow, 2023; Fisher et al., 2020; Ullah and Kim, 2020). This model has gained significant support from proponents of common-resource-pool within the discourse of decentralization and devolution of natural resource governance. It is argued that collaborative governance models emerge when the state retains a substantial role in resource management while the role of the local resource user or the landowner (individual/family/community) is retained or expanded (Musavengane and Kloppers, 2020).

Clear nuances exist between the collaborative governance model and the community-based governance model. From the perspective of Ullah and Kim (2020), community-based models are people-centred and community-focused while collaborative governance models focus on the partnership between the state, resource owners or landowners and other key stakeholders in the catchment area of the national park. The collaborative governance approach to the management of national parks, therefore, has a broader scale and involves multiple actors. Many examples of collaboratively governed national parks in Africa exist. Notable mentions include Liuwa Plain National Park in Zambia (Nyirenda et al., 2024; Nyirenda and Nkhata, 2013); Kgalagadi Transfrontier Park in South Africa (Lekgau and Tichaawa, 2021; Thondhlana et al., 2015); Arabuko-Sokoke Forest Reserve (ASFR) in Kenya (Ming'ate et al., 2014) and Benoue National Park-Complex in Cameroon (Ullah and Kim, 2020; Mayaka, 2002). WDPA-WDOECM data on Africa show that 72 out of 8791 protected areas are strictly under collaborative governance, with an additional 30 under joint governance (UNEP-WCMC and IUCN, 2022). Despite the successes of collaborative governance for national parks, the absence of community groups with the capacity to participate effectively can be a setback to the realization of the full merits of this approach.

Meanings and Conceptions of Collaborative Governance

Defining “Collaboration”

The terminology collaboration has been defined differently by various dictionaries and scholars. The Online Etymology Dictionary defines collaboration as the “act of working together, united labour”. It is commonly used in a positive context to describe two or more parties effectively collaborating on professional or artistic projects. This term suggests cooperation and mutual development of ideas. The adjective “collaborative” can be used to characterize such joint effort. The Merriam-Webster dictionary offers three definitions of collaboration: (1) “to work jointly with others or together, especially in an intellectual endeavour” (2) “to cooperate with or willingly assist an enemy of one’s country and especially an occupying force” (3) “To cooperate with an agency or instrumentality with which one is not immediately connected”.

The Cambridge Dictionary defines collaboration as “the situation of two or more people working together to create or achieve the same thing”. Scholars have offered varied definitions of the terminology. Castaner and Oliveira (2020) define collaboration as a type of interaction in which individuals work together to reach a common shared goal. To them, collaboration is a cooperative, inter-organizational relationship that is negotiated in an ongoing communicative process. Douglas et al., (2020) define collaboration as a process in which entities share information, resources, and responsibilities to jointly plan, implement and evaluate a program of activities to achieve a common goal. Originating from the Latin term “*corraborare*”, which translates to “to work together”, collaboration is seen as a collective process where parties improve each other’s abilities. It involves participants working jointly to tackle challenges, necessitating mutual trust and a commitment of time, effort, and dedication.

Other existing literature on collaboration highlights the point that collaboration can take place at the same time (synchronous collaboration) or at different times (asynchronous collaboration), at the same place (collocated collaboration) or in different places (remote or virtual collaboration) (Neumayr et al., 2021; Pidel and Ackermann, 2020).

Defining “Governance”

The etymology of the word governance corresponds to the Greek word ‘*kybernan*’ which translates to steering or piloting a ship (Amante, 2020). The concept has similarly received applicability in the Roman Empire under the Latin ‘*gubernan*’ meaning to direct, rule and guide (Amante, 2020). The Online Etymology Dictionary define governance as the “act or manner of governing”. The Merriam-Webster Dictionary define this term as “the act or process of governing or overseeing the control and direction of something”. The word ‘governance’ has received wide usage in policy and academic research. Yet, the word governance continues to be used ambiguously and varies in meaning depending on the discipline, approach, and area in which it is being applied.

Defining “Collaborative Governance”

Collaborative governance is “a governance arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets” (Ansell and Gash, 2008: 544).

Shifts toward enhanced and more effective collaboration are neither straightforward nor predictable, and the nature of collaboration varies across different countries and time periods. One answer to the question- “Why collaborate?” is that state-led centralized approaches have been ineffective and there is a formal administrative requirement to collaborate (Mintah, 2021; Ansell et al., 2020; Batory and Svensson, 2020). Dressel et al., (2021) identified three (3) key tenets of collaborative governance namely: principled engagement, shared motivation, and capacity for joint action. Upholding “inclusion and diversity” is critical for giving voice to multiple perspectives and different interests in collaborative governance. While there has been advocacy for collaborative governance as an alternative to traditional national parks governance, a key question that remains

unanswered is- what happens in systems where there are limited or no legal frameworks backing the collaboration? Batory and Svensson (2020) argue that collaborative governance can be challenged in such systems where there are legal gaps.

Unpacking the Fuzziness of the Concept of Collaboration and Collaborative Governance

Collaborative approaches to policymaking are recommended as a means to bridge the widening gap between government and citizens. This method of governance has garnered significant interest from public administration scholars and has become a prominent topic in academic literature across policy studies, public management, and democratic theory. However, the swift adoption of collaborative governance and associated concepts--- such as coordination, cooperation, joined-up governance, network governance, and interactive governance--- has resulted in a fragmented and diffuse discourse rather than a unified narrative.

Five key conceptualizations of collaborative governance have been defined in the literature on governance (Molnar and Svensson, 2022; Batory and Svensson, 2020). The first dimension explores the public-private divide, examining whether collaboration is primarily pictured as a means of integrating governmental and non-governmental actors, or if this bridging role is deemed non-essential. The second dimension focuses on agency, and questions whether collaborative efforts are perceived as being initiated and managed by entities such as government agencies. The third addresses whether collaborative governance is understood as a multi-organizational process--- whether it is confined to organized interests and public institutions or if it also encompasses extensive public engagement, including citizens and non-governmental groups. The fourth dimension considers the scope and sustainability of collaboration within the policy process, noting that some definitions regard collaboration as integral throughout a program or project, while others limit it to specific stages such as policy design, decision-making, or service delivery. Finally, the fifth dimension examines the underlying normative assumptions of collaborative governance, with some scholars leaving the objectives of collaboration open-ended, while others presume or explicitly require that collaboration serves a public purpose.

In summary, although collaborative governance is widely discussed and valued in academic and practitioner circles, it remains an imprecise concept. This ambiguity could affect practical policy and politics, as policymakers might be inclined to assert the existence of collaborative governance arrangements without making sincere efforts to engage external experts and stakeholders. Without clearly defined parameters, collaborative governance risks devolving into a mere buzzword (Molnar and Svensson, 2022; Batory and Svensson, 2020).

MATERIALS AND METHODS

To understand the models of collaborative governance in national parks, a systematic literature review approach is adopted. By focusing on national parks which are recognized internationally and have a management plan in place, I avoided the inclusion of “paper parks” to be able to analyze in-depth the models of collaborative governance used. The case studies were purposively sampled (but with regional balance) across the continent of Africa. By adopting Ansell and Gash’s (2008) collaborative governance framework as an analytical lens, I conduct a meta-analysis of the cases to determine how collaborative governance is modelled, the factors accounting for its success and the explanatory factors for failure in some contexts. This work also interrogated the outcome of such collaborative governance processes on the parks and fringe communities. A search string was used to search keywords such as collaboration, governance, collaborative governance, models of collaborative governance, and national parks from various databases including ScienceDirect, Google Scholar, SpringerLink, Taylor and Francis, and Wiley Online Library. The World Database on Protected Areas (WDPA), and the Parks Journal provided very useful lists of published articles that center on national parks and protected area governance. From the collated list of literature, I center this analysis on nine (9) national parks in Africa where collaborative governance approaches are implemented. These include Mole National Park (MNP) in Ghana, Kainji Lake National Park (KLNP) in Nigeria, Ras Mohammed National Park (RMNP) in Egypt, Benoue National Park Complex (BNPC) in Cameroon, Lobeke National Park (LNP) in Cameroon, Bwindi Impenetrable National Park (BINP) in Uganda, Mount Elgon National Park (MENP) in Uganda, Liuwa Plain National Park (LPNP) in Zambia, and Kgalagadi Transfrontier Park (KTP) in South Africa.

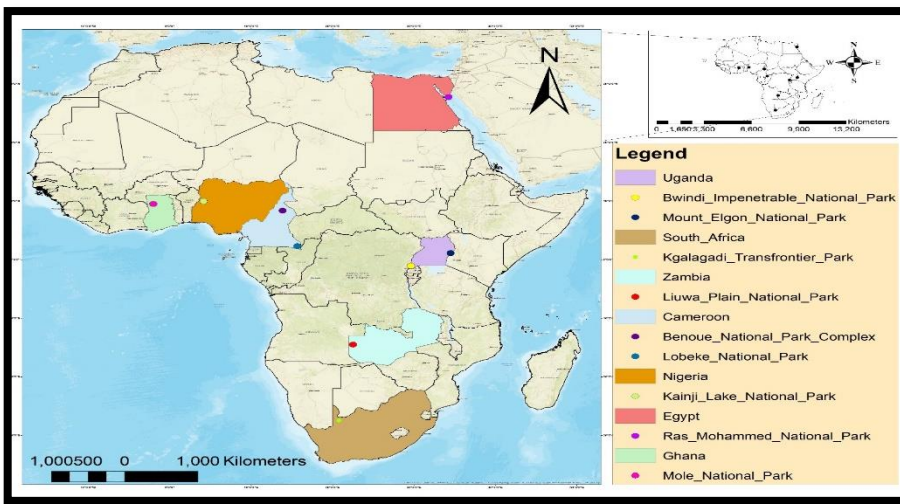


Figure 1: Map of the Study Area

Source: This map is made by the author of this paper

RESULTS

The Collaborative Governance Framework

I refer to the Ansell and Gash (2008) model of collaborative governance to frame my analysis of models of collaborative governance in national parks in Africa. Ansell and Gash’s model represents a synthesis of several existing pieces of literature that address the topic of collaborative governance from varied perspectives. With national parks, several governance characteristics match the components of collaborative governance as defined by Ansell and Gash. Many governments through departments of wildlife and forestry engage with non-governmental actors such as Friends of the Earth International (FOEI), World Wildlife Fund (WWF), United Nations Environment Programme (UNEP), and Global Environment Facility (GEF) among others in formal and collective decision-making processes where participants deliberate and negotiate for agreements that are in the interest of fringe communities and the national parks. The main elements of collaborative governance as stipulated by Ansell and Gash (2008) include starting conditions; institutional design; facilitative leadership; collaborative processes and outcomes.

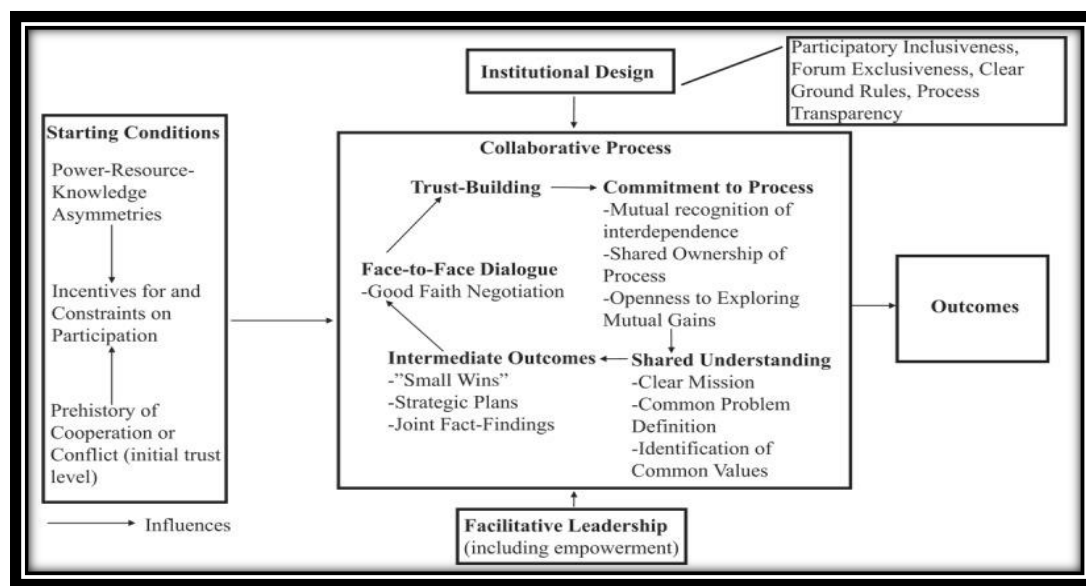


Figure 2: Collaborative Governance Model

Source: Ansell and Gash (2008)

The core components of the model as presented in Figure 2 are explained below.

i. Starting Conditions

Ansell and Gash (2008) argue that the motivation of actors to participate in collaboration depends on the balance of power and some level of trust among participants. The power of stakeholders manifests in terms of their status, organizational infrastructure for representation, financial or human resources with the government, and skills and expertise of the local people who partake in forums that may be highly technical. It is also about the time, energy, and liberty of the stakeholder(s) to participate in a time-intensive collaborative process (Ullah and Kim, 2020). It is further argued that imbalances in power or any prehistory of antagonism among the stakeholders are likely to express themselves in the collaborative process in the form of distrust, manipulation, and dishonest communication and consequently lessen the motivation to participate in collaborative governance. The motivation to engage in collaborative governance therefore hinges on the expectations of stakeholders about tangible policy outcomes or benefits against the balance of time and energy that the collaboration may require (ibid). Ansell et al., (2020) explain that the lack of alternative means by which stakeholders can achieve their interests unilaterally can be the reason for collaboration. In a similar vein, the failure of collaboration in many cases has to do with the third factor, the prehistory of conflict between strong governments and weak local communities (Ullah and Kim, 2020).

ii. Institutional Design

Institutional design in the collaborative governance model of Ansell and Gash (2008) sets the basic ground rules under which collaboration takes place. This includes the protocols for collaboration which gives procedural legitimacy to the collaborative process. Collaboration according to the model requires inclusivity of stakeholder groups and transparency about the agreements of collaboration that reminds participants of fairness, equity and openness. The literature points to many design features that ensure successful collaboration including open and inclusive representation of stakeholders; clear ground rules; transparency of the process; clearly defined roles; formalization of government structures; and realistic deadlines (Avoyan, 2022). The identification of affected communities in national park management is often made on proximity to the park. However, Ullah and Kim (2020) argue that the number and scope of stakeholders in wildlife conservation are often larger since some wild animals' habitats go beyond conserved areas. An inclusive institutional design thus ensures the opportunity for each stakeholder to deliberate with others about setting objectives for achieving policy outcomes through consensus.

iii. Facilitative Leadership

Ansell and Gash (2008) argue that for collaboration to be successful in the governance of resources, there is a need for actors with leadership abilities to be brought together under clearly set ground rules, trust, and common goals to explore creative solutions to technical problems. This type of leadership also facilitates the empowerment of stakeholders and supports weaker stakeholders as it can produce a balance of power and can help stakeholders explore possibilities for mutual gain. In other words, in cases where power imbalances exist among stakeholders who distrust each other, it is leadership that becomes critical (Ansell and Gash, 2008). Many scholars advocate for leadership that is facilitative rather than authoritative (Tomo et al., 2020; Ansell and Gash, 2008). Leadership may come from the community side, the government side, or a third-party actor whom stakeholders acknowledge and trust to provide neutral and facilitative services (Ullah and Kim, 2020).

iv. The Collaborative Process

The process of collaboration is iterative and consists of several stages. These include communication, trust-building, commitment, shared understanding, and achieving outcomes. According to Ansell and Gash (2008), this process is centered on reaching a consensus and encourages direct dialogue, which is crucial for stakeholders to discover opportunities for mutual benefit. Initially, trust is often low among stakeholders, particularly if there has been a history of conflict. Ansell and Gash emphasize that effective collaborative leaders must focus on establishing trust early in the process to prevent any stakeholder from trying to manipulate the proceedings.

Collaborative governance typically necessitates in-person discussions among stakeholders. However, Ansell and Gash caution that such face-to-face interactions do not automatically lead to successful collaboration; they can sometimes reinforce existing stereotypes or heighten tensions. Research indicates that engaging with local communities and their representatives enhances confidence and skill sets, which are pivotal for successful negotiations. Yet, the success of these discussions is also dependent on the quality of leadership and the commitment to the collaborative process. The extent to which stakeholders are committed plays a significant role in determining the fruitfulness or failure of collaboration. In particular, a lack of strong commitment from state agencies and agents, principally at the senior level, can constrain the process. Collaborative governance involves transferring the “ownership” of decision-making from the agency to the stakeholders involved. A shared understanding among these actors is key to defining a common mission, purpose, and objectives with the ultimate aim of reaching a consensus on the problem at hand. Ansell and Gash suggest that collaboration is more likely to succeed when the objectives and benefits of collaboration are clearly defined. The tangible outcomes are critical for maintaining the momentum of ongoing collaborative efforts.

How Collaborative Governance is Modelled in the Selected Parks

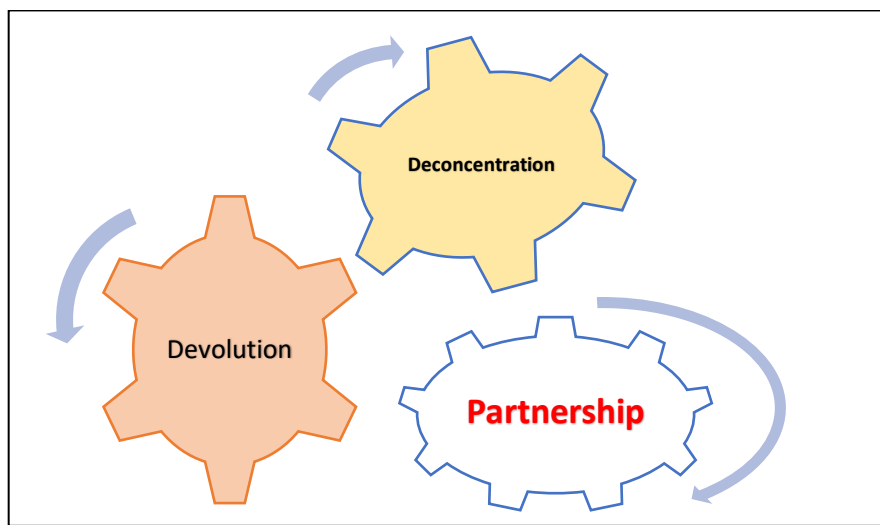


Figure 3: Models of collaborative governance

Source: Designed by the author of this paper based on the literature

Distribution of the Models of Collaboration Across the National Parks

Table 1: Models and scope of collaborative governance in national parks

National Park	Location	Model of Collaboration	Issues considered for collaboration	The actors involved in collaboration
Ras Mohammed National Park (RMNP)	Egypt	Partnership	Management operations Zoning	Government Fringe communities NGOs Donors
Mt. Elgon National Park (MENP)	Uganda	Partnership	Resource Access	Government (Uganda Wildlife Authority) Fringe communities

Kainji Lake National Park (KLNP)	Nigeria	Partnership	Conflict Resolution Tourist investment Zoning	Government (NNPS) NGOs (Nigerian Conservation Foundation) Fringe communities Private stakeholders (tourist investors)
Mole National Park (MNP)	Ghana	Devolution	Conflict resolution Payment of compensation Benefit sharing (e.g. tourism returns)	Government (Wildlife Division) Local government Fringe communities NGOs (A-Rocha Ghana)
Bwindi Impenetrable National Park (BINP)	Uganda	De-concentration	Resource Access Wildlife conflict management Benefit sharing	Government (Uganda Wildlife Authority) Local government Fringe communities
Liuwa Plain National Park (LPNP)	Zambia	Partnership	Tourism development Benefits sharing Management operations	Government (Zambia Wildlife Authority) Fringe communities NGOs (Strichting African Parks Foundation)
Kgalagadi Transfrontier Park (KTP)	South Africa	Partnership	Benefits sharing Zoning	Government Fringe communities NGOs (Peace Park Foundation)
Benoue National Park Complex (BNPC)	Cameroon	Partnership	Benefits Sharing Zoning Management operations	Government Fringe communities Private stakeholders
Lobeke National Park (LNP)	Cameroon	Partnership	Zoning Benefits sharing Development of regulations Institutional capacity building	Government Fringe communities NGOs/Conservation partners (SNV, GTZ) Private Stakeholders

Source: Table is generated by the author of this paper

Outcomes of Collaboration for Fringe Communities

Table 2: Outcome of collaborative governance for fringe communities

National Park	Issues considered for collaboration	The actors involved in collaboration	The outcome for Fringe communities
Ras Mohammed National Park (RMNP)	Management operations Zoning	Government Fringe communities NGOs Donors	Improved the economic value of the Sharm El-Sheikh area. However, beaches are under pollution threats
Mt. Elgon National Park (MENP)	Resource Access	Government (Uganda Wildlife Authority) Fringe communities	Collaborative Governance is still in the infancy stage. Initial improvement in cooperation between park staff and local communities. No real outcomes yet for fringe communities
Kainji Lake National Park (KLNP)	Conflict Resolution Tourist investment Zoning	Government (NNPS) NGOs (Nigerian Conservation Foundation) Fringe communities Private stakeholders (tourist investors)	Established community support zone development programmes. Collaborating NGOs also provided some empowerment projects for local communities on the fringes of the park
Mole National Park (MNP)	Conflict resolution Payment of compensation Benefit sharing (e.g. tourism returns)	Government (Wildlife Division) Local government Fringe communities NGOs (A-Rocha Ghana)	Alternative livelihoods provided to fringe communities. Exclusive access to NTFPs by vulnerable groups e.g. The poor
Bwindi Impenetrable National Park (BINP)	Resource Access Wildlife conflict management Benefit sharing	Government (Uganda Wildlife Authority) Local government Fringe communities	Alternative livelihoods provided to fringe communities
Liuwa Plain National Park (LPNP)	Tourism development Benefits sharing Management operations	Government (Zambia Wildlife Authority) Fringe communities NGOs (Strichting African Parks Foundation)	The collaboration helped in setting up the Liuwa Community Development Fund (LCDF) for the development of fringe communities. Collaboration also helped address human-

			wildlife conflicts
Kgalagadi Transfrontier Park (KTP)	Benefits sharing Zoning	Government Fringe communities NGOs (Peace Park Foundation)	Successful Land Settlement agreements
Benoue National Park Complex (BNPC)	Benefits Sharing Zoning Management operations	Government Fringe communities Private stakeholders	SNV, WWF, and Community collaborating for successful zoning
Lobeke National Park (LNP)	Zoning Benefits sharing Development of regulations Institutional capacity building	Government Fringe communities NGOs/Conservation partners (SNV, GTZ) Private Stakeholders	Successful creation of hunting zones for people of fringe communities; development activities in fringe communities

Source: Table is generated by the author of this paper

DISCUSSION

The governance structure of national parks in Africa can be framed as a form of collaborative governance involving the state and fringe communities of parks. In some cases, it includes intermediaries such as private individuals or companies and also NGOs. By referring to Ansell and Gash’s (2008) collaborative governance framework as an analytical lens and reviewing selected case studies in Africa, this paper highlights how collaboration as a governance approach for protected areas is modelled in national parks. This paper also unfolds the inherent fuzziness of the concept of collaboration and how it manifested in the governance of the study sites.

The literature points to three main models of collaboration in the governance of national parks including partnership, devolution and de-concentration. Each of these models showed many nuances across the cases in terms of stakeholders involved in the collaboration process, the terms of collaboration and the extent to which power and responsibilities are shared. The documentary evidence indicates that the collaborative governance models deployed in the selected sites were initiated by public institutions consistent with the tenets of collaboration highlighted in Ansell and Gash (2008).

While extensive fieldwork and case studies will be needed to establish any kind of generalizations, it appears from this review that the devolution model of collaboration as evidenced in the Mole National Park (MNP) in Ghana offers a more balanced field for collaboration in terms of the sharing of power and responsibilities. The creation of Community Resource Management Areas (CREMAs) under this model provides a platform for the devolution of centralized power from the Wildlife Division to rural communities within the same socio-ecological landscape for conservation purposes. The Protected Areas Management Units (PAMAUs) under the devolution model serve as the focal point in which protected areas advisory administrators and stakeholders (local government, non-governmental organizations, State agencies, and local communities) come together to share ideas and resolve conflicts. It is interesting to note that though the state provides funds for the management of the park, evidence shows that funds have been largely inadequate. It is not clear whether the sourcing of external support (including funds) is behind the devolution of true power by the state. Future

studies must investigate the true reasons behind the devolution of power by the state in the governance of the park.

The partnership model in the Kainji Lake National Park (KLNP) in Nigeria however fails to offer direct participation of local actors in decision-making. Eneji et al., (2009) corroborate this problem and make the argument that in Nigeria local people are not fully involved in making decisions because their representatives or the government usually make decisions on their behalf. The lack of local participation in decision-making in the case of the Kainji Lake National Park is symmetrical to the two-actor model in the Mount Elgon National Park (MENP) in Uganda. The analysis of the Mount Elgon National Park case shows that the terms and conditions of collaboration are often set by the park manager, and despite forest management committees getting involved in negotiation processes, oftentimes, many ordinary resource users were excluded from discussions. It is interesting to note the practice of two different models in the governance of parks within the same country. As evident in Uganda, the Bwindi Impenetrable National Park (BINP) engages in a de-concentration model which is completely asymmetrical to the partnership model in Mount Elgon National Park. It is however not clear from the literature whether the deployment of two different models of collaboration within the same country is a matter of experimentation of models or not. However, the de-concentration model shows much variation from the partnership model. Under this mode, it is evident that the central government rids itself of functions and responsibilities not deemed critical. While the Ugandan Wildlife Authority (UWA) is expected to develop operational guidelines that are inclusive, the practice paradoxically shows a lack of adherence to this principle of inclusion of the views of local people in policy formulation.

In the case of Cameroon, the parks deploy partnership as the model of governance. However, there is evidence of nuances in the partnership model that is arranged. In the Benoue National Park Complex (BNPC), a three-actor model of collaboration is engaged. As argued by Mayaka (2020), wildlife collaborative management should be triadic in the sharing of roles and benefits. Unlike the BNPC, the Liuwa National Park (LNP) in Cameroon shows the inclusion of non-governmental organizations in the hitherto triadic model thus making it a four-actor model of collaboration. The evident nuances between these two models are that in the case of the latter, there is a focus on institutional capacity building and the inclusive development of regulations. It is not clear the reasons for the incorporation of GTZ and SNV in the Liuwa National Park case. More empirical research to find the rationale for the engagement of the named NGOs in the collaboration process of LNP will unravel many grey issues. There is however evidence from other geographic contexts where NGOs have played specific roles. In this analysis, it is found that the Strichting African Parks Foundation (SAPF) in the LPNP partnership model and the Peace Parks Foundation in the Kgalagadi Transfrontier Park (KTP) partnership model provided technical and financial support for the development of tourism in the parks, as well as guidance in the use of park revenues for community development. In the case of the Kgalagadi National Park, the SAPF is one of the underlying factors accounting for the success of the collaboration process. Jawad (2021) highlight the critical role played by NGOs in conflict resolution in parks surrounding the Arabian Peninsula including the Ras Mohammed National Park (RMNP).

The cases reviewed for this paper showed that the models of collaboration deployed in Africa's national parks did not satisfy all the requirements stated in the Ansell and Gash collaborative governance framework. Unequal power relations between stakeholders, lack of trust, and unclear interests of intermediary actors such as NGOs seem to undermine this governance approach in some of the parks. Though there is not enough evidence in the cases about outcomes, of collaboration, it appears that without incentives for community engagement, power sharing, downward accountability and trust, collaborative governance may be ineffective. Further studies will be needed to examine the effectiveness of collaborative governance in Africa's national parks.

What Seems to Have Hindered the Success of Collaborative Governance Across the Case Studies?

The major setback for successful collaboration in the cases examined is the issue of unequal power relations. Even in cases of collaboration by law (*de jure*), there are unequal terms of engagement in terms of power and responsibility sharing. Some park staff on the ground remain unwilling to involve local leaders in the resolution of conflicts involving local people, even in instances where conflicts are officially supposed to be resolved with the consultation of communities or their leaders (local council representatives). There is

corroborative research to show that in many cases in Africa, sectoral authorities such as Forest Departments or Wildlife Authorities also act as Adjudicators or are in strong positions to influence how conflicts between them and local authorities/communities are adjudicated.

The Outcome of Collaborative Governance for Fringe Communities of National Parks

The analysis showed that collaborative governance has generated both positive and negative outcomes for fringe communities of national parks in Africa. In the case of Ras Mohammed National Park, it is observed that though the Sharm El Sheik area witnessed tourism-related economic growth, this cannot be entirely explained by the engagement of collaborative governance. On the contrary, the lack of a visitor management plan for the RMNP has led to a decline in the quality of beaches of fringe communities. In the case of Liuwa Plain National Park in Zambia, local communities retain revenues from income-generating activities and projects in the park. Under the Protected Areas Management Units in Mole National Park, local actors in collaboration negotiate with park management for granting exclusive access to Non-Timber Forest Products (NTFPs) for vulnerable people such as the poor in fringe communities. Collaboration in some cases (such as the Kgalagadi Transfrontier Park) has led to successful enrolment of resettlement plans, and in other cases (such as Mole National Park and Bwindi Impenetrable National Park) pushed for the provision of alternative livelihoods (e.g. beekeeping, mushroom production, grasscutter rearing etc) for the members of the fringe communities of these parks. Although the rubric of benefit sharing is used to bring different stakeholders into collaborative governance agreements, evidence from cases such as the Kgalagadi Transfrontier Park suggests that benefits and promises to fringe communities are only partly fulfilled.

CONCLUSION

The case analysis performed for this paper shows that in many of the collaborative governance models, the conditions for effective collaboration are not present in totality. This may partly account for the ineffectiveness of collaborative models in some of the parks. Partnerships involving tripartite actors including government, non-governmental organizations, and local communities seem to achieve more fruitful collaboration than partnerships between state actors and local communities where terms of engagement are often skewed towards state control. Also, De-concentration models that offer little or no resource access to fringe communities show tendencies of weak collaboration. As Namara noted in the case of Bwindi Impenetrable National Park,

“If resources accessed form an important contribution to local livelihoods, the agreement is strong. If however, resources accessed are few and unimportant for local resource users, the agreement is weak. In BINP this could lead to reluctance to fulfil obligations as laid out in the agreement- for example, communities may be unwilling to dedicate time to monitoring resource access and controlling illegal use. It is clear that UWA wants to maintain local people as subjects within the framework of ‘collaborative’ management. Local authorities have no control powers; they are given limited conditional privileges rather than substantive and secure rights” (Namara, 2006: 58).

Full devolution appears to satisfy the tenets of collaboration and appears to yield significant success, particularly in conflict resolution in national park areas. Soliku and Schraml (2020) underscore the importance of the devolution model of governance as evident in the Mole National Park stating that:

“The aim was to enable the devolution of management authority to defined user communities and encourage the participation of other stakeholders to ensure the conservation and a perpetual flow of optimum benefits to all segments of society” (Soliku and Schraml, 2020: 2).

“In the case of Mole National Park, most conflicts concerned livelihoods, and therefore conflict management strategies such as the provision of economic incentives proved successful... Involving stakeholders, including surrounding communities in co-management that involves open and transparent dialogue in the form of negotiation, mediation and economic incentives can influence successful conflict management” (Soliku and Schraml, 2020:9).

From the lessons learnt in this paper, it can be concluded that where local communities are given more access to livelihood resources and are involved directly in decision-making regarding national parks, collaboration with the state and other stakeholders in the governance of the parks is likely to be successful.

This review opens certain gaps in knowledge about the collaborative approaches in the context of national parks for which reason empirical research is needed to help find answers. First of all, it is not clear whether the variation in the way this approach is modelled is a reflection of the fundamental fuzziness of the concept of collaboration. This model does not set limits on the type and number of actors that should be involved in the collaborative process. Hence, the rationale for the inclusion or exclusion of NGOs in some of the models is not accounted for adequately. Furthermore, it will be necessary to examine the limits of power and responsibility that each stakeholder wields in a collaborative governance model. The cases examined provide explicit clarification of this. Finally, it is seen in some of the cases presented here that two different models of collaboration are under implementation within the same country. One would have imagined that similar approaches of governance would be deployed in the same country for the management of its national parks. However, the evidence here shows otherwise. Whether it is a case of experimentation or the politics of natural resource management at play, this study is unable to unfold this mystery. That said, it will make an interesting case to investigate why within a particular country, different models of collaboration are implemented in different national parks.

REFERENCE

1. Adeyanju, S., O'connor, A., Addoah, T., Bayala, E., Djoudi, H., Moombe, K., ... and Sunderland, T. (2021). Learning from community-based natural resource management (CBNRM) in Ghana and Zambia: lessons for integrated landscape approaches. *International Forestry Review*, 23(3), 273-297.
2. Agyare, A. K., Holbech, L. H., and Arcilla, N. (2024). Great expectations, not-so-great performance: Participant views of community-based natural resource management in Ghana, West Africa. *Current Research in Environmental Sustainability*, 7, 100251.
3. Amante, G. G. (2020). Performance evaluation of governance and political system of Ethiopia: post 1991. *Public Administration in Ethiopia: Case Studies and Lessons for Sustainable Development*, 444-472.
4. Ansell, C., Doberstein, C., Henderson, H., Siddiki, S., and 't Hart, P. (2020). Understanding inclusion in collaborative governance: a mixed methods approach. *Policy and society*, 39(4), 570-591.
5. Ansell, C. and Gash, A. (2008). Collaborative Governance in Theory and Practice. *Journal of Public Administration Research and Theory* 18(4): 543–71.
6. Arneith, A., Leadley, P., Claudet, J., Coll, M., Rondinini, C., Rounsevell, M. D., ... and Fuchs, R. (2023). Making protected areas effective for biodiversity, climate and food. *Global Change Biology*, 29(14), 3883-3894.
7. Avoyan, E. (2022). Understanding the performance of collaborative governance: An analysis of conditions for successful collaboration in Dutch flood risk management (Doctoral dissertation, SI: sn).
8. Ayivor, J.S., Nyametso, J.K. and Ayivor, S. (2020). Protected Area Governance and its Influence on Local Perceptions, Attitudes and Collaboration. *Land*, Vol.9, Issue.310, pp.1-20. doi:10.3390/land9090310
9. Batory, A., and Svensson, S. (2020). Regulating collaboration: The legal framework of collaborative governance in ten European countries. *International Journal of Public Administration*, 43(9), 780-789.
10. Bluwstein, J. (2021). Colonizing landscapes/landscaping colonies: from a global history of landscapism to the contemporary landscape approach in nature conservation. *Journal of political ecology*, 28(1).
11. Bruku, C. E. (2016). Perceived Risks and Management Strategies In Protected Areas-The Case Of Kyabobo National Park In The Nkwanta South District, Ghana (Master's Thesis, University of Ghana).
12. Busck-Lumholt, L. M., Corbera, E., and Mertz, O. (2022). How are institutions included in Integrated Conservation and Development Projects? Developing and testing a diagnostic approach on the World Bank's Forest and Community project in Salta, Argentina. *World Development*, 157, 105956.
13. Castañer, X., and Oliveira, N. (2020). Collaboration, coordination, and cooperation among organizations: Establishing the distinctive meanings of these terms through a systematic literature review. *Journal of management*, 46(6), 965-1001.

14. Cockerill, K. A., and Hagerman, S. M. (2020). Historical insights for understanding the emergence of community-based conservation in Kenya: international agendas, colonial legacies, and contested worldviews. *Ecology and Society*, 25(2).
15. Delso, Á., Fajardo, J., and Muñoz, J. (2021). Protected area networks do not represent unseen biodiversity. *Scientific Reports*, 11(1), 12275.
16. Domínguez, L., and Luoma, C. (2020). Decolonising conservation policy: How colonial land and conservation ideologies persist and perpetuate indigenous injustices at the expense of the environment. *Land*, 9(3), 65.
17. Douglas, S., Ansell, C., Parker, C. F., Sørensen, E., 'T Hart, P., and Torfing, J. (2020). Understanding collaboration: Introducing the collaborative governance case databank. *Policy and Society*, 39(4), 495-509.
18. Dressel, S., Sjölander-Lindqvist, A., Johansson, M., Ericsson, G., and Sandström, C. (2021). Achieving social and ecological outcomes in collaborative environmental governance: Good examples from Swedish moose management. *Sustainability*, 13(4), 2329.
19. Eneji, V.C.O., Gubo, Q., Okpiliya, F.I., Aniah, E.J., Eni, D.D. and Afangide, D. (2009). Problems of public participation in biodiversity conservation: The Nigerian scenario. *Impact Assessment and Project Appraisal*, 27(4), 301–307. DOI: <http://dx.doi.org/10.3152/146155109X479431>
20. Fisher, J., Stutzman, H., Vedoveto, M., Delgado, D., Rivero, R., Quertehuari Dariquebe, W., ... and Rhee, S. (2020). Collaborative governance and conflict management: Lessons learned and good practices from a case study in the Amazon Basin. *Society and Natural Resources*, 33(4), 538-553.
21. Fuchs, L. E. (2023). *A Political Ecology of Kenya's Mau Forest: The Land, the Trees, and the People* (Vol. 58). Boydell and Brewer.
22. Hoffmann, S. (2022). Challenges and opportunities of area-based conservation in reaching biodiversity and sustainability goals. *Biodiversity and Conservation*, 31(2), 325-352.
23. Höltermann, A. (2020). Forests under a changing climate: increasing adaptability and resilience through more diversity and heterogeneity. How to balance forestry and biodiversity conservation: a view across Europe, eds F. Krumm, A. Schuck, and A. Rigling (Joensuu: European Forest Institute and Swiss).
24. Jawad, L. A. (2021). Marine Protected Areas in the Countries Bordering the Arabian Peninsula: Reserve the Existing and Establish Further. *The Arabian Seas: Biodiversity, Environmental Challenges and Conservation Measures*, 1367-1377.
25. Kalvelage, L., Bollig, M., Grawert, E., Hulke, C., Meyer, M., Mkutu, K., ... and Diez, J. R. (2021). Territorialising conservation: Community-based approaches in Kenya and Namibia. *Conservation and Society*, 19(4), 282-293.
26. Kegamba, J. J., Sangha, K. K., Wurm, P. A., Kideghesho, J. R., and Garnett, S. T. (2024). The influence of conservation policies and legislations on communities in Tanzania. *Biodiversity and Conservation*, 1-24.
27. Koebele, E. A., and Crow, D. A. (2023). Mitigating conflict with collaboration: Reaching negotiated agreement amidst belief divergence in environmental governance. *Policy Studies Journal*, 51(2), 439-458.
28. Lekgau, R. J., and Tichaawa, T. M. (2021). Community participation in wildlife tourism in the Kgalagadi Transfrontier Park. *Tourism Review International*, 25(2-3), 139-155.
29. Matshusa, K., Leonard, L. and Thomas, P. (2021). Challenges of Geotourism in South Africa: A Case Study of the Kruger National Park. *Resources*, Vol.10, Issue. 108. Pp.1-23. <https://doi.org/10.3390/resources10110108>
30. Mayaka, M. A., Lacey, G., and Rogerson, C. M. (2020). Empowerment process in community-based tourism: Friend relationship perspective. *Development Southern Africa*, 37(5), 791-808.
31. Mayaka, T. (2002). Wildlife Co-Management in the Benoue National Park-Complex, Cameroon: A Bumpy Road to Institutional Development. *World Development*, Vol. 30, No.11, pp. 2001-2016
32. Mayele, J. M., and Woja, V. S. (2022). Socio-Economic and Environmental Factors Influencing Human-Wildlife Conflict in Nimule National Park-South Sudan. *International Journal of Innovative Science and Research Technology*, 7(4), 465-482.

33. Meng, Z., Dong, J., Ellis, E. C., Metternicht, G., Qin, Y., Song, X. P., ... and Xiao, X. (2023). Post-2020 biodiversity framework challenged by cropland expansion in protected areas. *Nature Sustainability*, 6(7), 758-768.
34. Mgaya, E. (2020). Traditional Institutions' Management of Sacred Forests in Tanzania: History, Narratives, and Evidence from Njombe Region, 1880s-2019 (Doctoral dissertation, Open Access Te Herenga Waka-Victoria University of Wellington).
35. Milupi, D. I., Mweemba, L., and Mubita, K. (2023). Environmental education and community-based natural resource management in Zambia. In *Sustainable Management of Natural Resources*. IntechOpen.
36. Ming'ate, F.L., Rennie, H.G. and Memon, A. (2014). Potential for Co-Management Approaches to Strengthen Livelihoods of Forest Dependent Communities: A Kenyan Case. *Land Use Policy*, Vol. 41, pp.304-312
37. Mintah, K. O. (2021). The Effect of Fiscal Decentralisation On Local Economic Development: A Case Of Kwahu South Municipal Assembly.
38. Molnár, A., and Svensson, S. (2022). Collaboration and Policy Making in Adaptation Planning: The Impact of a Boundary Organization in Hungary. *The International Journal of Climate Change: Impacts and Responses*, 14(2), 49.
39. Munro, P. (2021). Colonial Wildlife Conservation and National Parks in Sub-Saharan Africa. In *Oxford Research Encyclopaedia of African History*. Oxford University Press.
40. Musavengane, R., and Kloppers, R. (2020). Social capital: An investment towards community resilience in the collaborative natural resources management of community-based tourism schemes. *Tourism Management Perspectives*, 34, 100654.
41. Mutanga, C. N. (2022). Tolerance for wildlife resources through community wildlife-based tourism: Implications for sustainability. In *Protected Areas and Tourism in Southern Africa* (pp. 56-69). Routledge.
42. Namara, A. (2006). From Paternalism to Real Partnership with Local Communities? Experiences from Bwindi Impenetrable National Park (Uganda). *Africa Development*, Vol. XXX1, No. 2, pp.37-66
43. Ndivo, R. M., and Okech, R. N. (2020). Tourism Governance in Transition Period: Restructuring Kenya's Tourism Administration from Centralized to Devolved System. *Tourism Planning and Development*, 17(2), 166-186.
44. Ndonye, H. N., Mulwa, A., and Kyalo, D. N. (2021). Stakeholder engagement and performance of community based conservation projects: a case of Laikipia Conservation Region Conservancies. *Journal of Economics and Sustainable Development*, 12(4), 41-50.
45. Neumayr, T., Saatci, B., Rintel, S., Klokmose, C. N., and Augstein, M. (2021). What was hybrid? a systematic review of hybrid collaboration and meetings research. arXiv preprint arXiv:2111.06172.
46. Noe, C., Mwamfupe, A., Kweka, O., John, R. W., Silvano, P., Namkesa, F. D., ... and Ponte, S. (2022). Conservation and Development in Tanzania: Background, History, and Recent Developments. *Contested Sustainability: The Political Ecology of Conservation and Development in Tanzania*, edited by CHRISTINE NOE, DAN BROCKINGTON, and STEFANO PONTE, 33-70.
47. Nyirenda, V. R., Brewis, A., Schuster, R. C., Gegenheimer, C., and Lacy, M. G. (2024). Current Research in Environmental Sustainability. *Current Research in Environmental Sustainability*, 7, 100250.
48. Nyirenda, V., Nkhata, B.A. (2013). Collaborative governance and benefit sharing in Liuwa Plain National Park, western Zambia. *Parks* 19, 103–114.
49. Pidel, C., and Ackermann, P. (2020). Collaboration in virtual and augmented reality: a systematic overview. In *Augmented Reality, Virtual Reality, and Computer Graphics: 7th International Conference, AVR 2020, Lecce, Italy, September 7–10, 2020, Proceedings, Part I 7* (pp. 141-156). Springer International Publishing.
50. Santiago-Ramos, J., and Feria-Toribio, J. M. (2021). Assessing the effectiveness of protected areas against habitat fragmentation and loss: A long-term multi-scalar analysis in a mediterranean region. *Journal for Nature Conservation*, 64, 126072.
51. Shereni, N. C., and Saarinen, J. (2021). Community perceptions on the benefits and challenges of community-based natural resources management in Zimbabwe. *Development Southern Africa*, 38(6), 879-895.

52. Soliku, O. and Schraml, U. (2020). From Conflict to Collaboration: The Contribution of Co-management in Mitigating Conflicts in Mole National Park, Ghana. *Oryx*, Vol. 54, No. 4, pp. 483-493
53. Stone, M. T., and Stone, L. S. (2020). Challenges of community-based tourism in Botswana: a review of literature. *Transactions of the Royal Society of South Africa*, 75(2), 181-193.
54. Syaprianto, S., Adni, D. F., and Baharuddin, T. (2024). Insights into National Park Governance based on Global Research Trends: A Lesson for Indonesia. *Policy and Governance Review*, 8(1), 97-115.
55. Tan, K.C. (2021). Just Conservation: The Question of Justice in Global Wildlife Conservation. *Philosophy Compass*. 2021;16: e12720. <https://doi.org/10.1111/phc3.12720>
56. Tantoh, H. B. (2022). Community-based natural resources management in Sub-Saharan Africa: Barriers to sustainable community water supply management in Northwest Cameroon. *Signs Water*, 185.
57. Thondhlana, G., Shackleton, S. and Blignaut, J. (2015). Local Institutions, Actors, and Natural Resource Governance in Kgalagadi Transfrontier Park and Surrounds, South Africa. *Land Use Policy*, Vol.47, pp.121-129
58. Tomo, A., Mangia, G., Hinna, A., and Pellegrini, M. M. (2020). Making collaborative governance effective: a case study on the pathway to successful public-private interactions. *International Journal of Public Sector Performance Management*, 6(1), 36-55.
59. Ullah, I. and Kim, D.Y. (2020). A Model of Collaborative Governance for Community-based Trophy-Hunting Programs in Developing Countries. *Perspectives in Ecology and Conservation*, Vol.18, pp.145-160
60. UNEP-WCMC and IUCN (2022). Protected Area Profile for Africa from the World Database on Protected Areas, October 2022. Available at: <https://www.protectedplanet.net/>
61. Vayda, B. (2021). Displacement for Conservation: Livelihood Adaptations to National Parks in East Africa (Master's Thesis, Monterey, Ca; Naval Postgraduate School).
62. Vieira-Alencar, J. P. S., Bolochio, B. E., Carmignotto, A. P., Sawaya, R. J., Silveira, L. F., Valdujo, P. H., ... and Nori, J. (2023). How habitat loss and fragmentation are reducing conservation opportunities for vertebrates in the most threatened savanna of the World. *Perspectives in Ecology and Conservation*, 21(2), 121-127.
63. Yuan, R., Zhang, N., and Zhang, Q. (2024). The impact of habitat loss and fragmentation on biodiversity in global protected areas. *Science of The Total Environment*, 931, 173004.