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Contested Territory: Authority, access, and transboundary conservation in the Greater Virunga Landscape

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Abstract

Since 1991, Western conservation NGOs have been working with state governments of Uganda, Rwanda and the Democratic Republic of Congo to protect the critically endangered mountain gorilla and their transboundary tropical rainforest habitat in the Greater Virunga Landscape (GVL). While ecologically successful, research of the impacts of global conservation discourses on local and indigenous communities in the region remain under-developed. Similarly, challenges to the authority of governing arrangements in the three contiguous gorilla-dwelling national parks, generated by global environmental governance narratives, remain unexplored. Processes of territorialisation have challenged formations of property and land, the legitimacy of authority in the GVL, and access to forest resources, causing authority in conservation interventions to be contested by multiple social actors with differing and frequently competing agendas.

This thesis reveals the complex dynamics of multi-spatial authority and resource access, both in environmental governance and on local impacts of biodiversity conservation in the GVL, in an arena of political and violent interstate and civil conflict. Tensions persist around the fortress conservation model adopted by Western conservation NGOs in East Africa. The deployment of Western conservation science and capitalist economic policies in Virunga ecotourism has resulted in the commodification and exploitation of nature, evictions, and the continuing marginalisation of indigenous and local groups in the name of revenue-raising, and political conflict over border areas. The thesis reveals that conservation authority is not singular but plural, contested, fragmented and continually negotiated amidst layers of postcolonial regimes of contested legitimacy. Grounded in political ecology, the thesis conducts a critical interrogation of this contestation of authority. In doing so, epistemic authority is identified as a form of dominant power that operates through knowledge production rather than resource control or property rights. The research reveals the economic, social, and political realities of transboundary conservation landscapes in post-conflict dynamics. It demonstrates how the impact of complex (neo)colonial legacies is producing potentially fatal ruptures in the conservation episteme, where discursive practices of the epistemic conservation community no longer fit the reality of gorilla conservation in the GVL.

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Declaration

I declare that the thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere. No sections of the thesis have been published or submitted for a higher degree elsewhere. The thesis is the result of solo research.

Contested Territory: Authority, access and transboundary conservation in the Greater Virunga Landscape

'When the last tree is cut down, the last fish eaten, and the last stream poisoned, we will realise that we cannot eat money.'

- *Native American proverb*

'Africa has her mysteries, and even a wise man cannot understand them. But a wise man respects them.'

- *Miriam Makeba*

'What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and to one another.'

- *Chris Maser, author*

'Conservation has never been an African subject. It has always been a foreign project, a donor-funded activity. We are viewers to conservation in our own countries.'

- *Najib Balala, Kenyan Minister for Tourism*

Chapter 1 Introduction

1.1 Introduction

The rationale for this dissertation was inspired by the desire to address the twin issues of human security and biodiversity degradation, and how those issues intersect in critical biodiversity conservation interventions. The research reflects these broad global issues in a situated case study of a transboundary forest in East Africa. More specifically, this dissertation presents a critical but sympathetic account of successful attempts to prevent the extinction of the last community of mountain gorillas on Earth, a critically-endangered community that roams the transboundary tropical forests that stretch across the borders of Rwanda, Uganda and the Democratic Republic of Congo (referred to here as the Greater Virunga Landscape – GVL). The thesis examines the global/local intervention at the intersection of forest degradation, the turn to market logics in conservation, and the parallel existence of cross-border collaboration and violent conflict in a region of globally important biodiversity.

The themes of biodiversity conservation, transboundary collaboration, and the impact on local communities, are shaped by my previous experiences in antifascism and antiracist campaigning, and a 20-year membership of the Green Party of England and Wales. Transboundary conservation collaboration is the starting point of environmental peacebuilding, an academic discourse that attempts to flip the environmental security discourse on its head; instead of degrading ecological resources inexorably leading to competition and violence, shared environmental degradation can in fact create entry points to negotiation and cooperation (Conca & Dabelko, 1990). In the shadow of climate change, this discourse will be critical.

To address broader challenges of biodiversity loss, the United Nations has called for 30% of land and sea areas to be conserved, protected and managed through systems of protected areas and other area-based conservation measures by 2030, known as the '30 by 30' initiative (UN, 2021). But the present research project is located firmly in the critical discourse that challenges the UN

project. The challenge calls for the UN to re-evaluate the invisible impacts that might increase 'the marginalisation of rural people who will be most affected by its measures... (The UN programme) ignores decades of research and experience on the social impacts of conservation... (and) fails to appreciate the political contexts in which protected area conservation are embedded, or indeed the importance of the politics that surround its own creation' (Agrawal et al., 2021).

This dissertation contributes to the growing body of research that amplifies the stories and voices of those local and indigenous communities who have had to live with conservation interventions often imposed upon them by Western modes of conservation science and governance arrangements. These are the lives that are made invisible in global conservation discourses, but this research makes visible the invisible, centring the impacts of global gorilla conservation interventions on indigenous and local people, impacts that directly alter lives, livelihoods and communities. This is important because, in this global push to rewild 30% of all land, it is critical to understand the political and social impact of conservation work, and not to measure success or otherwise solely by ecological metrics. To this end, while problematising conservation in the Global South and uncovering tensions that are negatively impacting socio-ecological relations, I align myself with critical scholars who offer alternative modes of enquiry and centre issues of power, inequality and social justice in conservation interventions.

1.2 Research aims and questions

Central to the dynamics of conservation in the Global South are two forces that this research explores: first, a contestation of authority; second, access to resources, and both of these are intersecting dynamics themselves located within colonial legacies. This thesis investigates the complex dynamics of multi-spatial authority and resource access in transboundary environmental governance, political and violent conflict, and local impacts of biodiversity conservation in the Greater Virunga Landscape (GVL). Although ecologically successful, tensions persist around Western conservation knowledge and practices in the GVL (Brockington et al., 2008; Marijnen & Verweijen, 2016; Trogisch & Fletcher, 2020). Contestation over authority is

central to this complex process of conservation governance in Africa. But authority in conservation landscapes, amidst layers of postcolonial legacies of contested legitimacy, epistemic knowledge and the corresponding access to benefits drawn from ecological resources, is not singular, finite or absolute. Authority is plural, contested, fragmented and continually negotiated, produced by the intersection of multiple access mechanisms and power relations across political scales. Consequently, this research performs a critical interrogation of this contestation of authority, in order to reveal economic, social, and political realities of transboundary conservation, realities shaped by complex colonial legacies, competing claims, and conflict dynamics.

Specifically, the central thesis of this research is:

Conservation in authority in Africa is fragmented, contested and shaped by struggles over resource access across scale.

To that end, the analysis is guided by the following questions that speak to the themes and gaps in existing research and knowledge. Questions 1 to 3 are in the empirical chapters (4, 5, and 6), while the remainder (questions 4 and 5) are interrogated in the final broader conclusion (chapter 7).

1. How did 'apolitical' epistemic communities reshape the Greater Virunga Landscape frontier, influence state authority and transform resource access in a conflict arena?
2. How does the institutionalisation of transboundary conservation simultaneously reinforce and undermine state authority over natural resources?
3. What are the contemporary impacts of postcolonial conservation strategies in the GVL, and how do their internal contradictions point towards potential epistemic rupture?
4. To what extent has the transboundary project catalysed opportunities for promoting regional cooperation and peace?

5. What lessons can be learned from the case study that can positively impact peacebuilding and conservation discourses?

Adopting these critical questions of contested resource authority and access in conservation highlights the inherently political nature of conservation, where different actors seek to assert and challenge power and legitimacy in pursuit of often divergent goals and values (Adams & Hutton, 2007). It draws attention to the need for a critical examination of power relations and structural inequalities that often underpin conservation policies, while uncovering competing agendas and ways of seeing the environment among different interest groups at local, national, regional, and global levels (Jones, 2006). Within these power relations, a study of epistemic authority questions how dominant Western modes of conservation deploy epistemic knowledge and other mechanisms of access that reshapes landscapes and secures resource benefits, regardless of formal property rights.

The GVL case as a transboundary landscape is made more complex by competing centres of diffused authority across scale, impacting geopolitical authority at regional scales. Cross-border conservation, in the shape of Peace Parks, Transboundary Protected Areas (TBPA), or Transfrontier Conservation Areas (TFCA), have emerged as key features of global environmental governance in post-Cold War imaginations. According to practitioners and supporters, transboundary conservation programmes allow for greater dimensions of conservation for landscape-level ecosystems and migratory species, species that often span human-made country boundaries (Vasilijević et al., 2015). Furthermore, by bringing together two or more countries into landscape co-management, pooled resources can improve biodiversity conservation capacity and outcomes, while enhancing ecological connectivity. The cooperation generated around shared conservation interventions can also potentially be harnessed to promote greater cross-border exchanges, and even, in some cases, peace (Barquet, 2015; Ide, 2017; Ide et al., 2021). The transboundary collaboration over the protection of mountain gorillas in the Virunga forests, and the conservation of their volcano forest habitat, is remarkable for a number of reasons, not least that it was located, geographically and politically, at the centre of a decade-

long period of some of the most intense violent conflict that the post-independence African continent has experienced (Prunier, 2009).

Understanding the dynamics of contested authority in conservation interventions is important for understanding and addressing both the complex historical injustices caused by conservation, and the challenges facing present and future conservation interventions, from biodiversity loss and climate change to poverty alleviation, development issues, and social justice. While mainstream scientific approaches tend to ignore the political nature of conservation, presenting interventions as neutral imperatives that deploy global legitimacy (Cousins, et al., 2009), this research reveals the complex and multiscale political, social and economic impacts of ecological approaches to conservation.

To that end, I adopt a poststructuralist political ecology lens to explore these research questions, bound in dynamics of authority contestation and the deployment of epistemic knowledge, access to resources and the social construction of nature, and the legitimacy of power and authority in conservation landscapes. Through compelling narratives and stories drawn from interviews and focus groups involving over 90 conservation executives and practitioners, from international funding bodies and elite politicians to members of local and indigenous communities, the research explores the historic and contemporary impacts of gorilla conservation during simultaneous levels of conflict and collaboration across multiple scales.

1.3 Critical perspectives on African conservation

The history of conservation in Africa is tied inextricably to colonialism, when 19th and 20th Century European colonial states imposed Euro-centric notions of wildlife, nature, indigenous people and conservation science and knowledge onto the continent's flora, fauna, and communities. European rule, of course, ignored or disregarded indigenous knowledge, land rights and uses, or customary authority over the continent's natural resources (Neumann, 1998). Central to colonial strategies of conservation in Africa was the securing of land within hard boundaries and their framing as protected areas and game reserves, rooted in the belief that African people were

responsible for the degradation of the forests (Neumann, 2007). Indigenous tribespeople were either evicted from the protected areas as a matter of course and barred from returning, unless actually considered a part of the fauna of the area and allowed to stay, and thereby reduced to the level of an animal (Brockington, 2002). The colonial values of nature were rooted in ideas of pristine wilderness, free from human impact. These dynamics, of gazetted land into protected areas with hard borders, evicting indigenous communities and barring local people from entering or using natural resources under threat of arrest, or worse, became known as ‘fortress conservation’ (Brockington, 2002): ‘the concept that nature and people should be separated, either because people (or at least the wrong sort of people) are too dangerous to be allowed to be part of the landscape, and/or because the idealised perfect landscape is simply conceived to be ‘wilderness’, a place without people’ (Brockington, 2015: 2). Indeed, gazetted and turned into national park in 1925 by the Belgian colonial authorities, Virunga National Park in DRC is one of the oldest examples of fortress conservation in Africa.

These policies, though, have had a lasting impact on the political, social and economic foundation of the continent (Garland, 2008). In the postcolonial era, the legacy of colonial authority over resource access, authority passed directly to national state governments, intersects with the contested role of contemporary conservation. Consequently, in this new governance arrangement, the motives of a complex web of conservation actors shapes the authority, legitimacy, control and access to resources. The GVL is a fascinating example of how this colonial legacy of authority is both challenged by and supported by global conservation forces in a complex interplay of state and non-state, global and local actors negotiating resource rights (Martin et al., 2011b). The legacy of colonial dispossession intersects with how questions of contemporary property rights, and legitimate authority of resource control and access, are challenged by customary authorities and competing claims to land and access. Or, to ask a simpler question, is the GVL simply a landscape where the ‘institutional apparatus that upholds the colonial and racist legacies of conservation continues to hold tight’? (Kashwan et al., 2021: 4)

This research is, then, framed by postcolonialism, a lens that draws attention to the unequal power relations between the global north and the global south, and is concerned with how lasting impacts of colonialism shapes, colours and informs the present in former colonial spaces (Gilmartin, 2009), as 'the contestation of colonial domination and the legacies of colonialism' (Loomba, 2005: 16). After all, as Stuart Hall pointed out, 'Postcolonial is not the end of colonisation. It is after a certain kind of colonialism, after a certain moment of high imperialism and colonial occupation - in the wake of it, in the shadow of it, inflected by it - it is what it is because something else has happened before, but it is also something new.' (Hall, 1990, cited in Mishra & Hodge, 2005).

Applied to conservation, a postcolonial lens seeks to highlight the structural inequalities that global conservation interventions burden African people with, revealing power imbalances, contested layers of authority and diffused access to critical resources within the global political economies of African wildlife conservation (Garland, 2008). To that end, this research project is informed by political ecology, 'a field of study that embraces the interactions between the way nature is understood and the politics and impacts of environmental action' (Adams & Hutton, 2007: 147); where environmental or ecological conditions are formulated as the product of political and social processes, related at a number of nested scales from the local to the global (Bryant & Bailey, 1997); and where the logics, dynamics and patterns of economics change the politics of environmental action and ecological outcomes (Peet & Watts, 2004). Processes of critical institutionalism, an exploration of 'how institutions dynamically mediate relationships between people, natural resources and society' (Cleaver & de Koning, 2015: 1), offer further revealing insights into issues of complexity and institutional power dynamics in the nature of property and resource access, emphasising historic formations and access arrangements shaped by human actions, where complex social identities, unequal power relations and wider political factors shape resource management (Cleaver & de Koning; 2015, Ribot & Peluso, 2003; Sikor & Lund, 2009). In the GVL, the analytic of critical institutionalism highlights the agency of local communities in navigating, contesting and/or accommodating conservation outcomes, while institutional bricolage is deployed to reveal how norms are articulated and institutional

arrangements are assembled and reshaped towards creating transboundary, interstate governing arrangements as a crisis response to mountain gorilla protection (Carstensen, 2015).

1.4 Ecological and socio-political significance of the Greater Virunga Landscape

‘The African Great Lakes region is one of marked contrasts and striking continuities. Beset by destructive conflicts, it also possesses extraordinary potential for peace and development. From biodiversity to solid minerals and human talent, this geo-political space is endowed with abundant natural and cultural resources. Some of the world’s most ecologically diverse freshwater systems, subtropical rainforests, savannah grasslands, and temperate highlands with immense extractive, agricultural and touristic value are found in the Great Lakes region’ (Omeje & Hepner, 2013: 1).



Figure 1. Location of the Greater Virunga Landscape (CIA Maps, 2024).

The Greater Virunga Landscape in East Africa covers some of the richest biodiversity on the African continent. The 15,155km² expanse of dense rainforests, mountainous volcanic glaciers, alpine moorland and savannah grasslands in the Central Albertine Rift is home to almost 300 species of mammal (28 that are threatened), 900 species of bird (18 threatened), over 200 reptile and amphibian species (10 threatened), and 80 species of fish (World Conservation Society, 2020). It is also home to over 3000 varieties of flora that supports a wide variety of habitats (Plumptre et al., 2007). Furthermore, the dense tropical rainforest has global significance as a carbon storage and sink locking in millions of tonnes of carbon, and serves global regulatory functions such as water purification, carbon sequestration, and climate moderation (Kasangaki et al., 2012). According to a 2021 Nature report, the tropical forests of East Africa are second only to those of the Amazon as a global carbon sink (Cuni-Sanchez et al., 2021): ‘As such, [the GVL] is a site of global importance for conservation’ (Plumptre et al., 2007: 280).

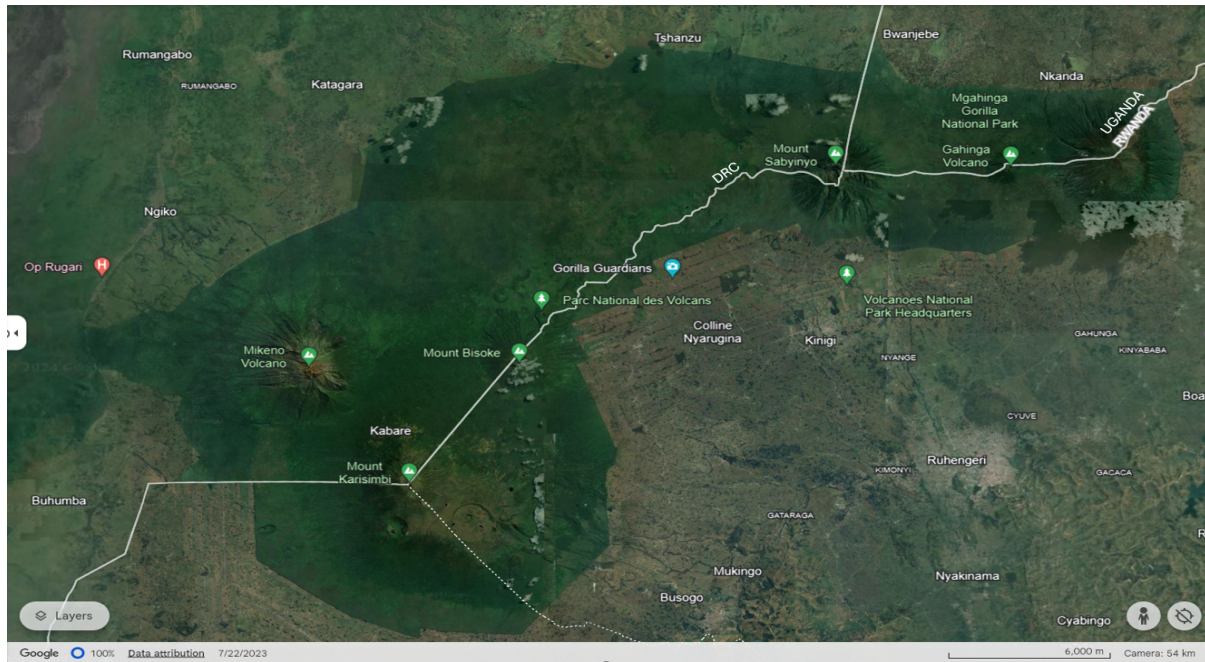


Figure 2. The contiguous Virunga forest, encompassing: Mgahinga National Park, Uganda (northeast); Volcanoes National Park in Rwanda (south), and the Mikeno section of Virunga National Park, DRC (west). (Google Earth, 2024)

One of those threatened species found in the GVL is the mountain gorilla (*gorilla gorilla beringei*). Roughly 50% of the mountain gorillas live on the slopes of nine extinct volcanoes on the Albertine Rift in the 434km² transboundary Virunga forest in the broader GVL (see figure 2). This forest is divided by three national parks: the Volcanoes National Park in Rwanda covering is 160kms in size; the Mgahinga National Park in Uganda covers 33.7km², and the Mikeno section of the Virunga National Park in DRC is approximately 250km² (Birabi, 2023). The remaining community of mountain gorillas live in the separate Bwindi National Park in Uganda, some 50km north of Mgahinga, and itself is contiguous with the Sarambwe Reserve in the DRC. But it is the gorillas of the transboundary Virunga forest that is the focus of this research, and for the sake of brevity and clarity the cross-border tropical forest will be referred to as the Greater Virunga Landscape (GVL) throughout.

The mountain gorilla lives at high altitudes on the slopes of the transboundary volcanoes in the Albertine Rift and are herbivorous. It is their herbivorous diet that positions the mountain gorilla as a keystone species in the Virunga forests, a category defined by the complexity of their

interactions in their natural systems (Mills et al., 1993). As herbivores, the gorillas spread seeds from the fruit consumed across the forest, generating the spread of system-supporting vegetation. At the same time, the nomadic mountain gorillas create clearings in the vegetation while foraging and building makeshift nests, gaps that allow sunlight to reach the forest floor and enables the growth of ground-level plant species (Vedder, 1984). The gorillas live in stable and cohesive groups (Doran & McNeilage, 1998), but there is a complex relationship between population density and the growth of mountain gorilla communities. For example, sudden increases in density potentially leading to spikes in rates of violent encounters, infanticide, and lethal fights between mature males, while competition for resources, predation, and disease outbreak can limit the growth of natural populations (Caillard et al., 2020). The mountain gorillas could also claim to possess causal power across a number of domains, from ecological to economic (Malone et al., 2014). As well as being key drivers in shaping their forest habitat, their presence and endangered status has caused significant global attention to conservation efforts in the GVL, significantly advancing scientific understanding of animal behaviour and biological studies. Also, through a conservation approach designed around gorilla tourism, local and national communities, livelihoods and economies have been reshaped to accommodate conservation efforts, supported by regional and international contemporary conservation policies designed to raise income for states and protect the species.

But the transboundary conservation project in the Virunga forests grew out of concerns by gorilla conservationists in Rwanda and DRC in the late 1970s and 80s that a *lack* of measures in place to protect the last of this endangered species rendered them vulnerable while roaming the colonially-divided ecosystem (Lanjouw et al., 2001). Despite active conservation programmes in Rwanda and DRC, numbers of gorillas in existence had fallen sharply to 240 by mid-1980s (Aveling & Aveling, 1989). Conservationists found that each state had different and uneven protection laws and policies; for instance, stringent anti-poaching measures in Rwanda were being undermined when the gorillas crossed the artificial forest border into DRC, where park authorities struggled to enforce anti-poaching measures in a much larger area of tropical forest

(Refisch & Jenson, 2016). Therefore, bringing the same level of protection across the gorilla habitat would therefore require coordinated policies amongst the three states.

These three former colonies have experienced decades of regional and civil conflict since independence in the 1950s and 60s, largely resulting from divisive ethnic policies and extractive priorities of historic colonial governance (Omeje & Redeker, 2013). However, transboundary conservation and tourism efforts in the GVL in 1991 saw ecological opportunities for cooperation around gorilla tourism being leveraged to potentially alter these conflict dynamics in the region, and, in a small but not insignificant way, bring these countries together (Conca & Beever, 2020). Thus, in the early 1990s, a transboundary scientific conservation community in the GVL, dedicated to protecting the mountain gorillas emerged, around the conservation work of the International Gorilla Conservation Programme (IGCP), a Western conservation non-governmental organisation (NGO). Levels of simultaneous collaboration and violence between the three states has been a feature of transboundary GVL conservation ever since (see figure 3).

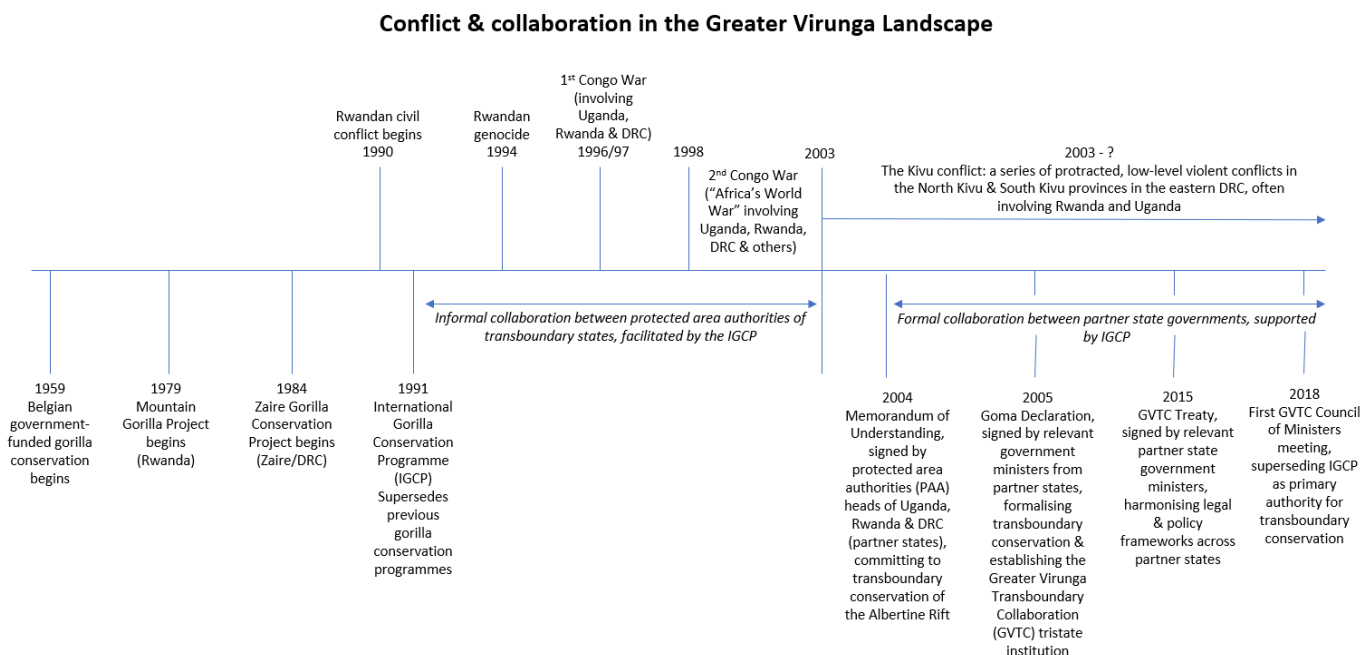


Figure 3. Conflict and collaboration in the GVL. (Earlier graphic found in Martin et al., 2011b, expanded and updated by author)

Unfortunately, the GVL area continues to be afflicted by issues that could potentially be a trigger for future conflicts: famine; epidemics; land reform issues, geopolitical stresses, and ethnic tensions that strain regional relations. GVL demographics today feature heavy natural resource dependency, extreme poverty, and is an area consistently considered a risk to both the extinction of threatened fauna, and a high risk of recurring conflict (Blomley et al. 2010; Omeje & Redeker, 2013).

The GVL is also home to approximately 4 million people, and with an average density of between 200–300 people per km² (peaking in places at 1000 people/km²) represents one of the highest rural population densities on Earth (Birabi, 2023), together with one of the highest levels of poverty in the region (Bush et al., 2010). To compound the poverty of local, park-adjacent communities, the conservation arrangements of the three national parks involved erecting ‘fortress,’ ‘fences and fines,’ or ‘coercive’ conservation policies (Adams and Hulme 2001: 10), which shaped policy towards creating and maintaining landscapes without humans in order to protect wilderness areas against the perceived threat posed by local populations entering the forest to access forest resources for subsistence living (Siurua, 2006). Protected areas, as fortress conservation arrangements, involved closing the forest to local people in the name of conservation, on the threat of fines, arrest, or worse, and instead refashioned the GVL landscape into ecosystem services providers, in the shape of global gorilla safaris and tourism. The gazetting of these forests not only barred access to the forests for local people, but at the time of formation of the Volcanoes and Mgahinga parks, thousands of Batwa people, an indigenous community that for centuries had lived in the Virunga forests, were evicted, sometimes violently, from their forest home. Since their eviction, Batwa communities have continued to be subject to widely documented stigmatisation, abuse and marginalisation across the region (Mc Guinness, 2020). Clearly, Western conservation interventions should not ignore the historically, socially, and economically unjust conditions that shape the lives and livelihoods of local and indigenous communities, in East Africa and elsewhere in the Global South.

Through engagement with almost 100 social actors, the thesis delivers an original and nuanced multiscalar political ecology case study of the Greater Virunga Landscape conservation intervention. It problematises the ecological success of the transboundary gorilla conservation programme to highlight the social and political impacts of global conservation in a specific landscape. The study is intended to contribute to the knowledge base in critical conservation studies, providing further perspectives on the entanglement of postcolonial legacies, capitalist logics and outcomes, and the influence of Western knowledge and authority in African conservation. The study also contributes critical perspectives to environmental peacebuilding, challenging and expanding key concepts. For example, environmental peacebuilding authors have cited the benefits of transboundary conservation efforts in the GVL for improving interstate political relationships (Conca & Dabelko, 1990; Ide, 2018; Martin et al, 2011), and the thesis provides both a detailed, qualitative research into how this was achieved, but also challenges the definition of success of collaborative efforts.

1.5 Thesis outline

The chapter that follows develops and constructs a political ecology conceptual framework for investigating the contestation of authority in transboundary conservation in Africa, drawing in three key theories or ideas, synthesised through a postcolonial lens: access and property (Sikor & Lund, 2009); a theory of access (Ribot & Peluso, 2003) and epistemic authority. These theories contribute novel ways of capturing the complex dynamics of authority in African conservation interventions. Chapters 4, 5 and 6 in turn demonstrate that this authority is contested, fragmented, remade, and shaped by structural, economic, political, and human forces, and which impacts on access to forest resources in multiple seen and unseen ways.

Chapter 3 describes the research design and methodology for collecting and analysing the empirical data, revealing how the research analysis created general theories and observations of themes, threads, and concepts emerging from the data, grounded in the views and words of participants in the study. Chapters 4, 5 and 6 then apply this conceptual framework to analyses of the research's empirical data, captured from four months of fieldwork, online interviews, and

participant observations. Chapter 4 explores how globalisation and the global conservation community deployed epistemic knowledge to create frontier dynamics in the Virunga forests. These dynamics fundamentally rearranged resource governance arrangements, revealing how, in the midst of a violent civil and regional conflicts and a genocide, processes of reterritorialisation reshaped authority of sovereign territories into an informal, singular transboundary identity. Chapter 5 is framed by critical institutionalism, exploring how the epistemic conservation community in the reterritorialised landscape escalated regional collaboration across political scales, revealing the benefits and challenges of formalised environmental cooperation to regional, national, and local actors. Chapter 6 is framed by centring the contemporary impacts of gorilla conservation on local and indigenous communities in the GVL. The chapter references these impacts by revealing the dominant conservation episteme on full display at the inaugural African Protected Areas Congress (APAC), a week-long global conservation conference held in the capital of Rwanda in the summer of 2022. To conclude, the final chapter presents and critically examines the overall contributions of the thesis, answers the outstanding research questions, and synthesises emergent themes and lessons. The PhD ends by reflecting on the potential implications of my findings for African conservation and identify promising avenues for further research.

Chapter 2 Contesting authority in African conservation: Power, struggles and perspectives as a conceptual framework.

‘Since most of us live in a hierarchical society, any discourse on wildlife tends to be about social relationships. Whom can we exclude from our Garden of Eden, and how can we keep “others” from trespassing on valuables that help sustain our life and livelihoods, if not our identities.’

- Marks, 1994: 120

‘Far from preventing knowledge, power produces it’.

- Foucault, 1980: 59

2.1 Introduction

The central thesis of this research is that authority in African conservation interventions is fragmented, contested, and shaped by struggles over resources across scale, and that contestation over authority is central to the dynamics of postcolonial conservation governance. Issues of contested authority here refers to the struggle of various stakeholders to assert their legitimacy, influence and control over land reform as a result of conservation decision-making and resource management (Ribot & Peluso, 2003; Sikor & Lund, 2009; Sikor, 2024). In this context, key political questions in conservation include: ‘Whose uses of nature should be allowed and whose should be prevented by rules, laws and economic relations? Whose freedom of action does conservation action protect, and whose does it restrain? Who wins from any given conservation decision, and who loses?’ (Adams, 2015: 65). This chapter builds a critical framework through which to explore these questions when asked of transboundary conservation efforts to protect the mountain gorilla in East Africa. The framework explores the concept of contested authority in conservation in the Greater Virunga Landscape (GVL) through a critical examination of key theories, historical legacies, contemporary practices and emerging challenges. It explores the theoretical considerations that underpin the research project as a whole, mapping

how those theories can inform empirical analytical tools that help reveal the centrality of issues of contested authority across the case study.

First, the chapter introduces political ecology as the case study's broad conceptual framework. It discusses what contribution the PhD is making to broader academic inquiry, and identifies theoretical gaps in political ecology that the thesis addresses. Next, the chapter more broadly discusses political ecology as a framework, particularly a poststructuralist political ecology that pays attention to 'the discourses and practices through which the concepts of nature are historically produced and known' (Escobar, 1996: 325). This particular framework reflects two recent impulses running through political ecology: one leaning more towards critical 'deconstruction', the other towards radical 'advocacy' (Desvallées, 2022). The chapter conceptualises conservation and human-nature relations in the Global South as an entanglement of power, colonialism, discourse, government and capitalism, while also discussing how political ecology can make contributions to decolonialising conservation. Next, the chapter introduces concepts of legitimacy, authority and access as contested and relational, key analytical features that reveal the contestation over forest resources in the GVL that lie at the heart of gorilla conservation (Bluwstein, 2017; Sikor & Lund, 2009). The key social actors - conservation NGOs, indigenous people and local communities, state actors, and private operators - are introduced and conceptualised here, revealing how each deploys its authority towards securing forest resources.

Ribot and Peluso's Theory of Access (2003) is introduced next as a key theory to describe mechanisms that social actors deploy in order to access forest resources. The operationalisation of access mechanisms is important here for reframing conflict in conservation from one of simple legal property rights to identifying how social actors struggle over resources, regardless of relations of ownership (Peluso, 2018). The chapter then theorises global epistemic conservation communities, highlighting the centrality of Western institutions in deploying access mechanisms in Global South landscapes. Finally, the chapter deploys the discursive framing of territorialisation and institutional bricolage to reveal how the global epistemic conservation

community produced a territorial transformation of the frontier forest landscape, a transformation from one of customary value to one of conservation and tourism.

2.2 Political ecology as a conceptual framework

Political ecology, at its core, examines 'how politics, power and socioecological relations shape one another across scale' (Ojeda et al., 2020) and, as Forsyth (2008) and Blaikie (2008) note, is motivated by a strong imperative to correct social injustices. This framework combines a Marxian political economy analysis that incorporates dynamics of power relations, historical materialism and resource distribution (Peet & Watts, 2004), with a cultural ecology theory that explores how human cultures adapt to and shape their environments (Robbins, 2012). Together, this framework exposes how political forces shape power relations among human actors in relation to nature. It reveals how supposedly apolitical conservation practices produce deeply differentiated outcomes across social groups, from Western NGOs wielding scientific authority to marginalised indigenous communities forcibly evicted from their ancestral forest homes. Indeed, political ecology grew in reaction to what was perceived as deterministic views of environmental change that too-easily implicated indigenous and/or local communities in the Global South, paying too little attention to concepts of ownership, use, and victims of power (Blaikie, 2008). Power is thus conceptualised in political ecology as a 'social relation built on the asymmetrical distribution of resources and risks, and locates power in the interaction among, and the processes that constitute, people, places and resources' (Paulson et al., 2003; 205). This intersection of culture, power and political economy becomes an 'analytical starting point' (Peluso & Watts, 2001), which introduces historical and political discourse to geographies of material practice. A political ecology analysis sets out to expose uneven power relations and politics within environmental degradation processes and struggles over resources (Robbins 2004), asking those questions of socioecological conflicts: *Who owns the resource? Who controls it? Who buys and sells it? Who has access to it and who is excluded from it?* (Bernstein, 2004). Ecological issues or conflicts, then, become, at their core, social and political problems (Neumann, 2005). Political ecology is thus a theoretical foundation that analyses the complex social, political and economic relations in which environmental change is embedded.

In a recent development, feminist political ecology advances further still the study of nature-society relations to better understand the embodied and emotional aspects of environmental governance (Sundburg, 2017). While not singularly focussed on women, feminist political ecology centres gender as ‘a critical variable in shaping resource access and control, interacting with class, caste, race, culture, and ethnicity to shape processes of ecological change, the struggle of men and women to sustain ecologically viable livelihoods, and the prospects of any community for “sustainable development”’ (Rocheleau et al., 1996: 4). Feminist political ecology has also seen a recent turn to the ‘decolonial’, to the rethinking of feminist political ecology beyond gender and class to ethnicity, indigeneity and non-human animals (Rocheleau, 2015; Sundberg, 2017). It is committed to transformative politics, expanding political ecology to consider post-colonial, Black, indigenous and Global South feminism, highlighting that even situated perspectives and knowledge of feminism can be colonial and Eurocentric (Hayman et al., 2015). This analytical grounding centres the focus of feminist political ecology on communities under oppression, revealing colonialities that exist to this day while stressing other ways of knowing (McLaren, 2017). As a result, feminist political ecology matches its commitment to equality and justice with a critical stance at the intersection of capitalism, patriarchy, globalisation, colonialism, enclosures, development and extractivism (Federici, 2018). Colonial extractivism itself is identified as a form of racial capitalism that reproduces local sociological crises (Davis et al., 2019), and within decolonial political ecology is increasingly understood beyond singular case studies to wider political economies of production and social reproduction (Arboleda, 2020). Calls to decolonise conservation challenges traditional conservation practices and instead advocates for conservation strategies that are embedded in social justice, equity, and the protection of cultural identities, ensuring that local voices lead governance processes (Mansilla-Quíñones, 2024; Dawson et al., 2023), not least because recent research has found that areas of biodiversity managed by situated indigenous communities are found to be in equal or better condition than those areas that have been cleared of people (Fe et al., 2020; Reyes-García et al., 2018; Schuster et al., 2019). Through this lens, feminist political ecology expands interrogations of multiscale, intersectional operations of power (Ahlborg & Nightingale, 2018): ‘How power operates across gender, class, race/ethnicity, sexuality, age, ability, and other contextual axes of differences

exposes and unearths how resource struggles play out on the ground' (Sultana, 2021: 159). While this research does not investigate the benefits of an indigenous-led conservation in the transboundary Virunga forests, it maintains a critical stance informed by feminist political ecology towards current traditional conservation regimes and outcomes in the GVL, while centring the narratives of the displaced indigenous Batwa community.

A poststructuralist political ecology similarly addresses how language, narratives, and knowledge systems intersect with power dynamics to shape an understanding of environmental issues and influence conservation practices. By revealing such interactions, it can uncover questions such as how and why certain discourses become dominant in a particular time or place, while others are marginalised or ignored (Forsyth, 2003). This ontological device is important within conservation interventions to identify how different actors use competing discourses in attempting to justify and legitimise their claims to authority over, and access to, natural resources in a specific landscape.

A focus on the social construction of nature, on the other hand, challenges the preconceived notion of nature itself as an objective, pre-existing reality, and instead introduces an essentially epistemological recognition of the 'relativism and ambiguity' of nature and political/nature relations (Dear, 1994: 298). In this respect, human knowledge is situated socially, or, in other words, knowledge as socially produced according to political, social, and cultural intersections, as opposed to simply given with fixed ontological properties (Demeritt, 2002). Similar to a focus on the politics of knowledge creation, a focus on the social construction of nature within conservation interventions helps isolate and examine how varying constructions of nature can justify different management regimes and access rights: nature as pristine wilderness, for example, justifies exclusionary conservation practices which often negatively impacts local people (Neumann, 1998).

Indeed, concepts of governmentality and biopower allow a greater examination of how power and authority in conservation, as a form of environmental governance, seeks to shape human

behaviour and govern social/environment relations, processes described as 'environmentality' (Agrawal, 2005). This is an important analytic for a number of processes in conservation. An environmentality analysis can expose how conservation interventions can create new subjectivities or institutions in a conservation landscape, how people understand their relationship to nature, and how this can be mediated, shaped, and transformed by conservation governance (Rutherford, 2017). For example, transboundary forest management can create new forms of forest management institutions that become new sites of authority, and with it for the people working in the collaboration, potentially a new, cross-border collective identity above that of a national identity (Ali, 2007). Or, in exposing intersecting forces that impacted peoples' relationship with their local nature, how ecotourism can reshape local relations of labour and relations with forest resources, relationships newly mediated by capitalist logics (Fletcher, 2010).

2.2.1 Power, knowledge, and colonial legacies in conservation

Power is conceptualised in political ecology as a 'social relation built on the asymmetrical distribution of resources and risks, and power is located in the interaction among, and the processes that constitute, people, places and resources' (Paulson et al., 2003: 205). This understanding, as an analytical starting point (Peluso & Watts, 2001), proves essential for examining those fundamental questions mentioned above: Who owns the resource? Who controls it? Who buys and sells it? Who has access to it and who is excluded from it? These are important questions to ask of the mountain gorilla conservation: since 1991 the programme has achieved ecological success and generated revenue for local communities, while simultaneously has created profound social injustices through exclusionary biodiversity protection, alleged human rights abuses committed by park guards on local people, and forced evictions and ongoing marginalisation of indigenous communities.

Meanwhile, it has long been recognised that biodiversity conservation in the Global South reflects colonial thinking (Corbera et al., 2021). Indeed, 'colonialism is not an event that can be relegated to the past but is an ongoing structure of dispossession that shapes our colonial present' (Youdelis et al., 2021: 994). Therefore, political ecology's emphasis on historical

materialism proves crucial because the legacy of colonial-era conservation practices continue to shape contemporary interventions. For example, the GVL national parks and reserves were created by colonial administrations in the 19th Century. Following Neumann's *Imposing Wilderness* (1998), this framework enables analyses of the 'national park ideal' present in GVL gorilla conservation and the political apparatus enforcing it, exposing the congruence of coercive colonial administration and modern conservation practices. This historical lens is vital for understanding why contemporary conservation in the GVL continues to replicate exclusionary practices at the expense of local and indigenous communities, despite claims of community participation and benefit-sharing. Political ecology is also useful for identifying forms of 'epistemicide' (Ujuaje & Chang, 2020) in conservation practices, where colonialism led to the subjugation of the 'Other' through the erasure of non-Western conservation knowledge systems (Collins et al., 2021).

The framework's attention to discourse and knowledge production, central to poststructuralist political ecology, is particularly relevant for analysing how Western scientific expertise dominates conservation planning, with some poststructuralist scholars claiming to expose the 'myths' of mainstream/traditional scientific discourse concerning the environment and conservation (Tetreault, 2017). As Escobar (1996) argues, poststructuralist political ecology pays attention to 'the discourses and practices through which the concepts of nature are historically produced and known' (325). This analytical perspective exposes how the International Gorilla Conservation Programme (IGCP) and other Western NGOs, funders and practitioners position themselves as neutral technical experts, while fundamentally reshaping power relations and resource access across the transboundary landscape. Therefore, as Tetreault (2017) claims, that the purpose of poststructuralist political ecology is unveiling 'the imperialist agendas, gender biases, and racist assumptions that lie behind mainstream sustainable development programs for global environment management' (7). The underlying claim of 'liberation ecology' (Peets & Watts, 2004) is that natural science is incapable of reflecting its underlying structures of causality, ultimately leading to the rejection of natural science claims to universal truth statements (Forsyth, 2003).

Furthermore, political ecology's focus on multiscale politics provides essential tools for examining how conservation operates across multiple governance levels, both within and across borders. A political ecology framework reveals how conservation interventions can extend state governance into remote forest communities, how stakeholder groups can create transboundary institutions, and how conservation can create new configurations of authority that determine resource access, often privileging market dynamics of international ecotourism over the welfare of local communities (Matose et al., 2022). As Neumann (2005) demonstrates, ecological issues become, at their core, social and political problems. This multiscale analysis is indispensable for understanding how epistemic conservation communities leverage global environmental concerns to influence national and regional policies and reconfigure local resource access.

The framework's critical stance toward capitalism's role in this reconfiguration of conservation as tourism in the GVL illuminates market-based conservation strategies. As Corbera et al. (2021) argue, (neo-)colonial projects use Western science in conservation to justify a number of (to them) beneficial interventions. These benefits can range from the appropriation and commodification of nature to the establishment of protected areas/fortress conservation models (Brockington, 2002), and from the introduction and insistence of market-based practices and solutions to the codification and institutionalisation of tenure relations that serve to make local people accountable for environmental damage. This reveals how ecotourism commodifies both nature and people, transforming mountain gorillas into revenue-generating assets while subjecting local communities to new forms of exploitation.

As Robbins (2004) emphasises, political ecology sets out to expose uneven power relations and politics within environmental struggles. This framework is grounded in the pursuit of the attempts to decolonise conservation, a 'long-term process involving the bureaucratic, cultural, linguistic and psychological divesting of colonial power' (Tuhiwai Smith, 2008: 8). It attempts to confront the historical and ongoing legacies of colonialism that have dispossessed indigenous and local communities of their lands and knowledge systems (Kothari et al., 2015; Massarella et al., 2023), while criticising the imposition of exclusionary protected areas that often criminalise

traditional resource users and disrupt livelihoods (Kabra, 2019). This political ecology framework thus provides the theoretical foundation necessary to analyse the complex interplay of power, access, knowledge, and authority in transboundary conservation, revealing how global environmental governance intersects with local realities to produce profoundly political outcomes in the Greater Virunga Landscape.

2.2.2 Contribution to political ecology

As figure 4 shows, this thesis employs political ecology as described above as its primary conceptual framework to examine transboundary conservation in the GLV. Political ecology provides the theoretical tools necessary to understand how power relations shape conservation interventions, revealing the inherently political nature of biodiversity protection efforts that often present themselves as neutral, technical enterprises.

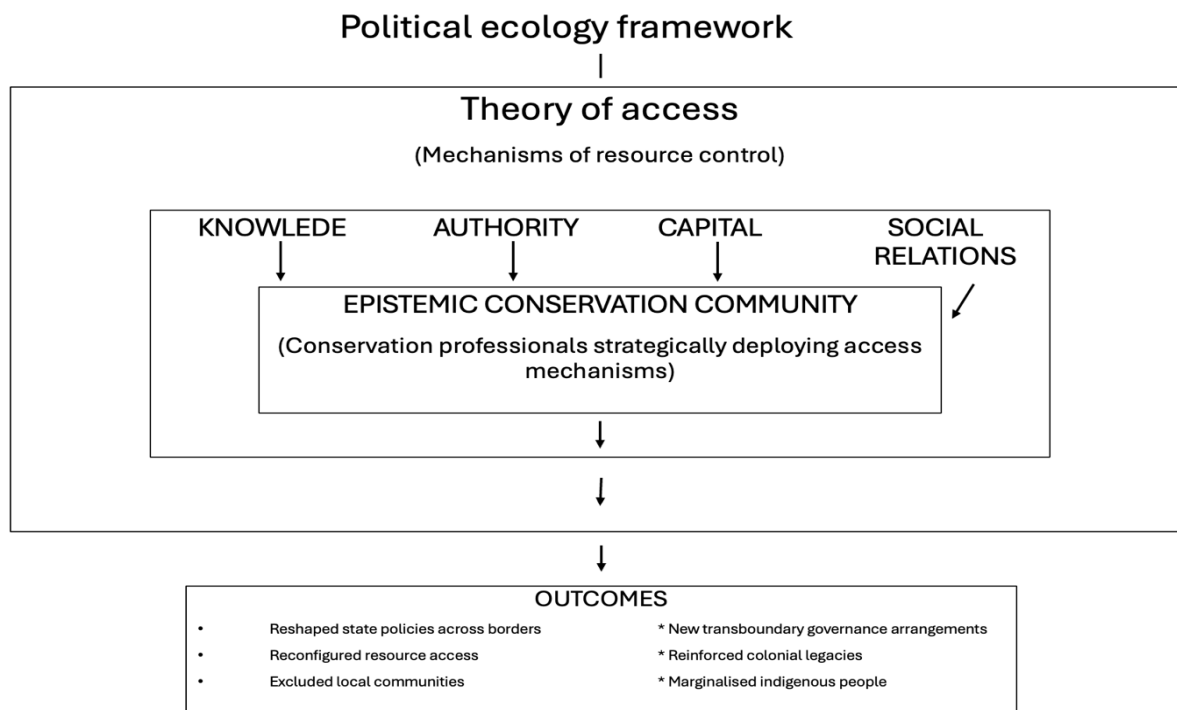


Figure 4. Conceptual framework diagram (Image author's own)

But while political ecology has a long and established history of critiquing conservation and its impacts, this thesis's contribution is to examine the deeper epistemological structures that

makes those impacts appear logical and rational, often while simultaneously producing violent and/or exclusionary outcomes for local and indigenous communities. The thesis moves political ecology beyond a focus on power relations to examine deeper epistemological foundations of how dominant global conservation knowledge creates conditions of possibility only for certain forms of environmental governance, while rendering alternative knowledges unthinkable. It goes beyond a critique of Western scientific domination to show precisely how epistemic authority is deployed as a form of power that operates through knowledge production rather than resource control or property rights. Through this, global epistemic conservation communities can dominate and maintain access to nature through epistemic authority in the Global South at local, regional and global levels. The thesis equips political ecology with sophisticated and novel tools for analysing how power in conservation is deployed through certain access mechanisms to achieve, despite limited formal resource ownership, radical conservation goals across multiple scales.

2.3 Legitimacy, authority and access

While political ecology is useful for revealing the entanglement of colonialism, power and knowledge in the GVL, an active framework needs to reveal specific mechanisms for *how* power operates on the ground. As discussed above, political ecology reveals how conservation is rarely an apolitical process but delivers and shapes political outcomes. It is therefore important to move beyond power imbalances to analyse mechanisms and strategies that show how these outcomes emerge, outcomes that reconfigures who controls the Virunga forests, from scientific knowledge to market forces, from state law to customary claims.

Authority, and the contestation of authority within a ‘complexity of regimes’, is a central and important concept in understanding the governance of conservation territories, yet it remains relatively undertheorised in much of the conservation literature (Lund, 2024). Frameworks of property, authority (Sikor & Lund, 2009) and access (Ribot & Peluso, 2003) become essential in detailing how social actors can benefit from, can reshape, or be excluded from forest resources.

In the framework of conservation, the authority to legitimise resource ownership (property), access rights, and who does and does not benefit from its exploitation lies at the nexus of land use, property, and labour relations (Peluso, 2018). Authority in this sense is a form of power that is characterised by a certain level of willing obedience from those who are subject to it due to their acceptance of the authority's legitimacy and right to issue such commands (Weber, 1976): 'Struggles over property may therefore be as much about the scope and structure of authority as about access to resources, with land claims being tightly wrapped in questions of authority, citizenship, and the politics of jurisdiction' (Lund & Boone, 2013: 1).

2.3.1 Authority as contested and relational

Sikor And Lund's (2009) definition points to two key characteristics of authority: its relational nature and its dependence, to some degree, on social recognition or legitimacy (Sikor & Lund, 2009; Weber, 1976). First, authority is not reduced to simply that of the state, or characteristic of individuals or institutions. Indeed, the politico-legal field itself is crowded by a range of potential law makers, from Parliaments and governments to administrative institutions and courts (Tamanaha, 2021). Instead, authority is vested in social relations that emerge from interactions, negotiations, and conflicts between actors (Lund, 2006). Furthermore, establishing this authority is not necessarily simply a case of invoking dictatorial powers but, rather, the ability to inform and shape behaviour through influence, persuasion, increased participation, and securing legitimacy in the eyes of actors: 'Legitimacy can be defined as the acceptance and justification of shared rule by a community' (Bernstein, 2004: 142). Second, authority is subject to context and situation. Legitimacy is not a fixed or finite notion which actual conduct can be measured against (Moore, 1998). It is a result of a continual process in which various actors and institutions attempt to legitimise actions and decisions (Fortmann, 1995). As a result of this ever-shifting process, what counts as legitimate authority in one arena or in relation to one set of actors may be rendered illegitimate in another (Lund, 2006), while different, competing legitimacies can be in competition in situations of legal and/or institutional pluralism (Sikor & Lund, 2009). Contestation of plural authorities is central in shaping both the informal transboundary conservation programme in the Virunga forests as well as later efforts to formalise

arrangements through the political evolution of regional conservation institutions. This plurality shaping the GVL political landscape, (see table 1), reflect five important overlapping means by which authority is legitimated in the conservation context: state and state agencies; indigenous people and local communities; the IGCP and other global NGOs in the epistemic conservation community (see section 2.6); private sector actors operating gorilla safaris and tours; and regional institutions like the Greater Virunga Transboundary Collaboration (GVTC).

First, the state governments, agencies, and actors of Rwanda, DRC and Uganda, at local and national levels, invoke state claims to legal ownership of natural resources through mandates, political power, and colonial/postcolonial histories (Neumann, 2005; Peluso & Vandergeest, 2001). A state's capacity to control, access, and benefit from resources is a function of relations between the state and civil society. It largely depends on the degree of its actual authority and on the legitimacy of that authority of the state among the various social groups within the conservation landscape (Midal, 1986).

Indigenous people and local communities and residents, who live/d either inside or adjacent to the GVL's protected areas, assert their authority and legitimacy of local resource access based on historical claims, local knowledge, and livelihood needs (Fortnam, 1995; Li, 2007). Local and indigenous communities have the closest physical contact with biodiversity conservation and economically are likely to be most impacted by regulated protected areas and conservation programmes (Tisdell, 2009). Historically, local and indigenous communities have been largely excluded from conservation initiatives, especially so in the architecture of protected areas, or 'fortress conservation'. Customary authority can take the form of traditional leaders, elders, and institutions, regarded as indigenous in Convention 169 of the International Labour Organisation (ILO) 'on account of their descent from the populations that inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions' (ILO, 1989). Indigenous groups like the Batwa in the GVL claim their legitimacy on grounds of ancestral ties to the land in

the Virunga forests, subsistence living needs, and moral authority in their frequent victimhood to, and disenfranchisement in, conservation-oriented evictions (Schwaiger et al., 2022). When indigenous people and local communities contest authority deployed in conservation management strategies which has the potential to change who has access to and control over local resources, as in the Virunga National Park in the DRC, the state can resort to violence to maintain control while appropriating the language of conservation to legitimate both its claims and its enforcement methods (Peluso, 1993; Verweijen, 2020).

An epistemic conservation community deploys influence and legitimacy based on scientific expertise, a global mandate to moral conservation claims, and access to international financial resources (Brockington & Scholfield, 2010; Brosius, 1999). Conservation interventions are often considered a justification for external intervention in what were previously the sole affairs of states and/or customary authorities (Ribot & Peluso, 2003). Resource access is in this way shaped by the power to produce categories of knowledge (Foucault 1978) that shape legitimacy of access claims to 'endangered' resources. From local and customary perspectives, however, both states and international conservation NGOs may be seen as illegitimate authorities and controllers of local resources (Peluso, 1993).

Finally, private sector actors, in the form of tourism operators running gorilla experiences, philanthropist funders, concession holders, and eco-entrepreneurs, shape and inform conservation practices, gaining resource access through economic power and claims of market logics (Brockington et al., 2008). International private sector actors like corporations, multi-lateral financial institutions, and conservation NGOs are often interlinked by overlapping networks of actors, ideas, and money, coalescing at international conferences like the 2022 African Protected Area Congress (APAC), formalising the legitimacy of (Western) principles of capitalist conservation across conservation landscapes. So dense has this network become that it has become 'increasingly difficult to distinguish where these institutions end and the networks that connect them begin' (Igoe & Brockington, 2007). An adherence to market logics does not necessarily entail deregulation of conservation authority as much as it entails its reregulation by

the state to empower the authority of the private sector and transform previously untradable resources like mountain gorillas, their tropical forest volcano habitat, and even Batwa lived experiences, into tradable commodities (Castree, 2007).

2.4 From property rights to mechanisms of access

These contested and overlapping authorities in the GVL reveal the importance of analysing the multiple ways that parties can access forest resources; while states may hold formal property and legal rights to forests access and NGOs and indigenous communities may lack formal ownership, the reality of who can derive benefits from the Virunga forests is more complex (Hajjar et al., 2021). Ribot & Peluso's (2003) Theory of Access become useful here in shifting the analysis to dynamics of resource access, regardless of formal property rights. They make two key distinctions between property and access: property is the *right to benefit* from natural resources, while access is the *ability to derive benefits* from resources. So, 'If the study of property is concerned with understanding claims (and rights), then the study of access is concerned with understanding the multiplicity of ways people derive benefits from resources, including, but not limited to, property relations' (*ibid*: 154).

The *ability* (rather than the *right*) to derive benefit from forest resources can be found in significant 'bundles of powers', constitutive strands within broader powers that configure resources for specific actors. However, the ability to benefit from resources is entangled with and found within specific political-economic and cultural frames. Among several socio-economic factors identified in the Theory of Access that can influence or mediate resource access, we identify a handful of access mechanisms that feature in reconfiguring the Virunga forests: knowledge and authority; access to capital; and access to the market.

2.4.1 Knowledge and Authority

Access to knowledge and information significantly shaped access to resources in the GVL forests by deploying a global legitimacy to resource claims. This access mechanism relies on an

understanding of discourse and information as the ‘articulation of knowledge and power’ through which dominant ‘social reality inevitably comes into being’ (Escobar, 1996, p. 326). These legitimising processes can create knowledge systems that justify dominant narratives and discourses around resources and resource conservation. In turn, the systems frame discourse as the articulation of knowledge and power through which access to material benefits, or providing access to opportunities, networks, or formal positions towards those benefits, emerge (Bathija & Sylvander, 2023). For example, the IGCP deployed global scientific legitimacy of (Western) conservation knowledge and drew in international attention to create a widespread crisis narrative that sought to a) justify the NGO’s operations in the forests, and b) exert pressure on the Ugandan, Rwandan and Congolese governments to be seen to be working with the IGCP to protect the critically-endangered mountain gorillas in the Virunga forests (Kalpers, 2005).

Regimes of inclusion and exclusion to resource access and benefits hinge on the production of illegitimate versus legitimate uses and users of land and property (Li, 2014; Brockington, 2002). These regimes rely on discursive technologies, or ‘recurring configurations of narratives, imagery and discursive practices’ that authorise ‘certain forms of knowledge, actors, and modes of action, while delegitimising and obscuring others’ (Marijnen & Verweijen, 2016, p. 275). Conservation knowledge is thereby rendered a stark mechanism for both controlling and gaining access to the forest and the forest resources, despite a lack of legal property ownership.

A framework so shaped reveals aspects of the legitimisation and deployment of knowledge through power, locating the role of authority in shaping knowledge creation and conservation governance. Access to this form of NGO authority, created by the deployment of knowledge and power as a legitimising authority, reshaped resource access in the GVL by influencing the allocation of rights (Ribot & Peluso, 2003). In Global South conservation, the interventions that conservation NGOs propose largely rely on state authority to enforce property rights as a means to control access. Access to these centres of state power then impacted levels of access to sovereign resources and resource use (Read, 2015), which led to diminished access/benefits rights for indigenous people and local communities. Through the IGCP, the authority of the global

epistemic conservation community was/is invoked by scientific or managerial discourses that provide 'experts' to support authority in making decisions about GVL conservation spaces and the inhabitants, rendering decisions on access and allocation to resources dependent on the 'moral-ethical terrain' of biodiversity conservation (Margulies, 2018). From its position of power in the GVL, invested by the deployment of global conservation authority and (Western) knowledge creation, the epistemic conservation community gained the *ability* to access forest resources and in doing so challenged state sovereignty over its territory. At the same time, by expanding the epistemic conservation community to embrace the protected area institutions and its staff, the deployment of Western conservation interventions like fortress conservation challenged and swept aside indigenous Batwa forest knowledge, sidelining customary authority.

2.4.2 Capital and market access

Access to capital, in the form of finances and equipment, and the distribution of capital across agents, can profoundly shape the structure and performance of resources access (Carter & Wiebe, 1990). Capital can be used to control access through rights-based mechanisms like purchasing property rights or paying formal access fees. But capital can also be used to maintain resource access by, for example, investing in patrons and technology, or paying rents and wages. Access to capital from Western funding bodies allowed the IGCP to reshape the GVL landscape, providing the funds, for example, for park staff wages that national governments could not. Of course, limited access to capital can restrict social actors from challenging or exploiting potentially profitable opportunities (Kumarasamy & Singh, 2008). The indigenous Batwa and park-adjacent communities lack the fees necessary to legally access the forest on their doorstep, lack the means to challenge decisions carried out in the name of conservation, and more generally lack credit to start their own tourist enterprises and take advantage of the influx of wealthy tourists.

Indeed, market access is a strong mediator of the ability to derive benefits from resources (Ribot, 2002) and can be constrained or facilitated by a range of intersectional factors, including access to credit and/or capital, transportation infrastructure, market regulations and access fees, and social relations (Ribot & Peluso, 2003). International tourism operators, safari companies and

luxury lodges capture the bulk of the tourist market through access to features like sophisticated online booking systems, marketing networks and wealthy Western customers (Stacey et al., 2021). By contrast, local communities are often relegated to marginalised roles in this hierarchy of access (Peluso & Ribot, 2020) – seeking low-wage employment in the surrounding tourist industry or producing crafts for sale in tourist spots, or indigenous people performing traditional dances or curating displays of their culture for paying tourists. Consequently, in rural areas where biodiversity, protected areas, and heritage in the GVL are features of gorilla tourism, the welfare of local communities and existing livelihoods are shaped by and often come to rely on global dynamics of market access to natural resources through the tourism trade (Bramwell, 2014; Thompson et al., 2018). This can leave these communities in a perilous situation, because when tourism declines or stops altogether (as was the case during COVID), local people dependent on tourism income were unable to feed themselves or their families, which led to increased poaching in the GVL parks in the search of new resources on which to survive (Walters et al., 2021).

2.5 Theorising the episteme

An analysis of the epistemological grounding of global south conservation uncovers the assumed and unspoken drivers, political relations, political economy, and implications of the complex, fragmented system of conservation in a highly interconnected but unequal world. Contemporary conservation interventions evident in the GVL continue to reflect the dominant conservation paradigm that maintains the Western ideological perspective of human/nature dichotomy. This dichotomy frequently adopts the ‘fortress conservation’ model which is based on protecting nature from people (Brockington 2002; Knox, 2025). Contemporary Western concepts of conservation can only be understood by locating it in an historical horizon, showing how a concept came about and interacted in certain periods of time (Foucault, 1972). Mainstream conservation is premised on the intersection of and collaboration of state power, market-oriented approaches, and philanthropic interests to generate ecotourism revenue in protected areas (Brockington et al. 2008; Büscher and Fletcher 2019). But European colonial ideas about wildlife resources needing protection from indigenous and local communities continue to exert

an influence on the wildlife and tourism sector today (Benjaminsen et al., 2013). The growth of capitalist logics in fortress conservation over the past four decades, of making nature pay, presents a consolidation of protected areas conservation techniques from the colonial era (Knox, 2025).

These concepts found within contemporary conservation interventions are the assumed, unspoken features that Foucault described as the 'buried' foundations of knowledge, knowledge that his epistemic 'archaeology' of the episteme seeks to unearth (Birkin & Polesie, 2013). Foucault noted that there is an unconsciousness that dictates the way statements are created and how science is deployed, understood or used: 'a positive unconscious of knowledge... a level that eludes the consciousness of the scientist and yet is part of the of the scientific discourse' (Foucault, 1994, xi). His framing of the episteme is the analysis of 'discursive practices' of knowledge 'in relation to the epistemological figures and with the sciences...' (Foucault, 1972; 191). Put more simply, the episteme refers to the possibility of knowledge that determines the development of thought and knowledge in a given period, the abstract conceptions lying unseen and unacknowledged at the foundations of thought that are normally taken for granted (Foucault, 1979). By this, Foucault is reflecting on the total set of relations that unite the discursive practices that give rise to figures, sciences and formalised systems, such as the forms of traditional conservation interventions, that together makes all other knowledges either unthinkable or delegitimised.

Foucault discussed 'lateral relations' within the episteme, relations of authority that 'may exist between epistemological figures or sciences insofar as they belong to neighbouring, but distinctive discursive practices' (Foucault, 1972; 191). Foucault is identifying here that, within any episteme, dominant epistemologies across different but related fields exist in parallel to each other. Furthermore, these epistemologies can support each other in horizontal connections to extend and cement dominant thought and processes to the extent that alternative knowledges become unthinkable (Foucault, 1979). For example, Foucault writes that economics is a science that is lateral to the art of governing (Demetrescu & Taut, 2014), that itself is lateral to the domain

of conservation science. In mainstream science, Western strategies of conservation in the Global South intersect with a capitalist political economy and development to create the dominant regime of ecoservices, ecotourism and ‘making nature pay’. This horizontal mutuality shapes the authority and governance of Western conservation programmes in the Global South.

Furthermore, Foucault also introduced into the episteme the concept of power, specifically his conception of a regime of truth – that is, to locate how an episteme brought with it new means of control, coercion, constraint and domination (Rouse, 2003). If the episteme is an ‘epistemological field’ that creates ‘the conditions of possibility’ for knowledge, then for Foucault, the question became who or what determines the development of thought and knowledge in a given period (Foucault, 1970). However contemporary conservation interventions are, the underlying features discussed above, and indeed most conservation agencies in the Global South, ‘are burdened by institutional path dependencies that were established under European colonial rule... and have continued to do so in the post-independence era’ (Kiwango & Mabele, 2022: 181). So, contemporary mainstream conservation remains in the colonial episteme of the 19th Century. As Chapters 4, 5 and 6 reveal, the epistemic conservation community in the GVL deployed its authority, power and global legitimacy to implement contemporary conservation systems to reshape the transboundary Virunga landscape. These systems may be contemporary but nevertheless retain the unacknowledged bias and abstract conceptions of colonial-era conservation. Furthermore, chapter 6 also reveals the limits of epistemic coherence between this discourse and reality in GVL conservation. When the lived realities of political and economic tensions begin to fracture the discursive conservation episteme, epistemic validity claims become inevitably undermined (D’Cruz, 2024). To Foucault, knowledge is fundamentally ‘discontinuous’ with discursive reality, and human and non-human life in the GVL is bearing witness to the effects of this mismatch (Kelly, 2019). Through historical grounding and empirical analysis, it is the impact of these buried epistemic foundations and tensions on historical and contemporary relations in the GVL that the following empirical chapters unearth.

2.5.1 Actors maintaining the episteme

Among the many actors in the timeline of transboundary mountain gorilla conservation in the GVL, the global epistemic conservation community is the constant presence around which all activity revolved/s. In this light, the conceptual framework here centres its activity, discourses and dynamics as a thread through every analysis, revealing how the global epistemic conservation community, through the IGCP NGO, exploited access mechanisms available to it to create a parallel authority in the GVL forests, remade the forest landscape to satisfy tourist demands, and coordinated political strategies to formalise the collaboration.

A simple description of epistemic communities can be conceptualised as groups that share the same methods for producing science (Holzner & Salmon-Cox, 1977), although a more developed definition goes beyond the simple sharing of scientific principles, defining epistemic communities as 'networks of professionals with recognised expertise and competence in a particular domain, and an authoritative claim to policy-relevant knowledge within that domain or issue-area' (Adler and Haase, 1992, p. 3). An epistemic community, then, can refer to the sharing of a strong scientific culture towards political action. Furthermore, a rise in the visibility of advocacy approaches within epistemic communities, deploying expertise in the pursuit of policy change, is the result of the field increasingly positioning itself in socio-political debates, commonly prominent in environmental arenas (Desvallées et al., 2002).

Resource access here is shaped as such by the power to produce categories of knowledge (Foucault, 1984). In discussing the social construction of reality, Burger and Luckman (1967) argue that reality is a system of intersubjective assumptions and definitions which is produced and reproduced through social interactions. Epistemic communities can determine the limits or boundaries of a 'proper' construction of reality, maintaining the authoritative claim to this knowledge, with an emphasis on purpose: put simply, an epistemic community constitutes a shared faith in the scientific method as a way of generating and deploying truth (Holzner & Marx, 1979). By bringing (a form of) knowledge, policy platforms, experts and funding, NGOs are often central to the creation of epistemic communities within specific areas of governance, facilitating

‘a network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy relevant knowledge within that domain or issue-area’ (Haas, 1992: 3). Armed with these knowledge claims of biodiversity value, ecosystems services and carrying capacity, epistemic conservation communities can play a significant role in the way in which states frame their environments and define their interests by influencing policy decisions.

The legitimacy of knowledge

In 1991 and throughout the 1990’s informal collaboration, the IGCP – itself a coalition of World Wildlife Fund (WWF), African Wildlife Foundation (AWF) and Flora & Fauna International (FFI) NGOs - framed urgent efforts to protect the endangered mountain gorillas in crisis terms, reflecting a ‘universal’ truth claim that is constructed and advanced by the legitimacy of an (usually Northern hemisphere) epistemic conservation community (Schuetze, 2015). Once framed as a ‘crisis’, gorilla conservation was advanced by the epistemic conservation community through asserting its global authority, deploying discursive techniques and securitised narratives towards their addressing the ‘emergency’ (Marijnen, 2022). The IGCP thus deployed its legitimacy and knowledge claims in the shape of universal beliefs in biodiversity protection, ideological controls, deploying discursive practices, and in the negotiation of systems of meaning to shape forms of resource access in the Virunga forests (Ribot & Peluso, 2003; Shipton & Goheen, 1992).

Influencing policy

In the recent turn to advocacy, epistemic communities are playing additional roles beyond their technical and policy expertise (Kedem et al., 2024). The epistemic conservation community in the GVL deploy their legitimised knowledge and proposed solutions as ‘apolitical’, and ‘technical’ actors to influence partner state governments. In a space of conflict and mistrust between the partner states, the IGCP cemented their role as an important and trusted partner in advancing and influencing transboundary collaboration and conservation policy (Beck & Mahony, 2017; Cortner, 2000). The IGCP deployed its legitimacy and authority in the GVL to harmonise conservation policies and develop gorilla tourism infrastructure with partner state governments, commodifying GVL biodiversity to be exchanged on the global market, and mediating access to

forest resources and reframing inclusion and exclusion dynamics among social actors. Furthermore, an epistemic conservation community not only has the ability to influence policy but also has the potential to transform the actions and views of those engaged in it, particularly potentially transformational attributes in building trust and understanding among actors (Ide, 2017). The IGCP expanded the epistemic conservation community to include the state employees in all three contiguous national parks while funding regular regional meetings and joint patrols of the parks' staff, coalescing its global/local authority towards the creation of a common conservation identity that, at times, superseded that of the rangers' own nationality (Martin et al, 2007). Thus, through the deployment of global scientific knowledge and legitimacy, the epistemic conservation community in the GVL contested the sovereign authority of the partner states throughout the 1990s. At the same time, influencing state policy to harmonise and strengthen conservation policy towards gorilla tourism mediated access to forest resource benefits that resulted in the exclusion and marginalisation of indigenous people and local communities.

2.6 Epistemic conservation community deploying access mechanisms

The framework so far has identified the access mechanisms that the epistemic conservation community deployed in order to gain access to the GVL forest resources, enabling it to create a parallel (transboundary) authority in the space that challenged both state and customary authority. *How* the epistemic conservation community then deployed its access mechanisms to produce a territorial transformation of the frontier forest landscape into a gorilla conservation over the decades is the final piece. First, through a territorialisation analysis, the framework reveals first how IGCP reshaped the GVL from a lived forest to a conservation territory. Second, an institutional bricolage analysis demonstrates how, once peace broke out between the conflicting states in 2003, the IGCP was then instrumental in formalising the transboundary collaboration. Thus, the framework reveals how the global epistemic conservation community, through the IGCP, strategically reconfigured both the physical landscape and the governance structure of the Virunga forests.

2.6.1 Territorialisation and the GVL frontier - Reshaping the forest

Contestation of authority and regimes is a key feature of the frontier, a process by which traditional social relations, institutions, and forms of authority are dissolved, challenged, fragmented and reshaped by external, often globalising, forces (Rasmussen & Lund, 2018). Territorialisation, on the other hand, is a concept that helps to define the (re)formation of sets of political relations of access, exclusions and authority through the deployment of spatial arrangements such as boundaries, zones, and inside/outside distinctions (Blomley, 2017). If frontier dynamics describes the dissolution of existing social orders in a conservation landscape, the process of territorialisation, or reterritorialisation, describes the dynamics that establish their replacements (Rasmussen & Lund, 2018). Transboundary conservation areas such as the GVL served to create both new spatial units and new conservation territories wedded to ecosystems rather than state borders, and within them new arrangements of authority and resource control, reflecting a shift of focus in conservation, from species to ecosystem. A global epistemic conservation community, composed of international conservation NGOs like the IGCP, scientists, donors and private sector forces of political economy, deployed expert knowledge in the GVL as a deterritorialising force in a frontier that challenged and contested authority and legitimacy over conservation, land, and resource management (Büscher & Dressler, 2012).

Knowledge as a territorialising force

The epistemic conservation community in the transboundary Virunga intervention deployed access mechanisms of scientific knowledge and global authority to negotiate forest resource rights across international, national, regional and local scales. Within these mechanisms, the community employed a number of strategies to construct and propagate knowledge claims towards this negotiation (see chapter 4): 1) Shared norms and beliefs and a crisis narrative coalesced around the active need to protect the endangered mountain gorilla population from extinction, the unifying assumptions of which guided interactions and facilitated collaboration toward common goals; 2) the community's dense conference, research, and NGO networks allow rapid flows of empirical gorilla data as well as consolidation of epistemic standards, which forged particular (Westernised) visions and versions of the transboundary landscape and conservation

norms (Brockington & Scholfield, 2010; Verweijen & Marijnen, 2018); 3) the production of material artefacts - documents, maps, monitoring and census reports, documentaries, studies, visual models, and treaties - as a mobilising and coordinating form territorial control (Roth, 2008; Sack, 1986) that embedded abstract ideas into tangible forms to gain traction in policy debates, while providing the funds to expand and pay conservation teams and monitoring capacity; 4) professional certifications like conservation degrees and recognised competencies like gorilla nest counting ability differentiated experts from novices and legitimised claims by underscoring specialised knowledge (Haas, 1992), credentials that reinforced the community's privileged epistemic status regarding conservation issues; 5) press releases, advocacy briefs and fundraising campaigns disseminated the community's normative ideas about gorilla protection to general publics to garner external policy support and amplify calls for strengthening conservation (Merry, 2010; Stone 2002). Ultimately, these strategies enabled the epistemic conservation community to embed conservation knowledge claims within respected institutional frames like the IUCN and UNEP and in specialised academic journals, sealing scientific legitimacy for the community's expertise and authority in GVL resource control (Dunlop, 2009).

From subsistence to tourism

The economic incentive behind the drive to enhance gorilla tourism capacity in the partner states reflected 'global solution' imaginations of sustainable development in the Global South (Bashar, 2018). Tourism, or specifically ecotourism, is generally posited as the 'holy grail', seen as capable of tying together all the various goals of transboundary conservation: raising revenue for conservation interventions and development funds for local communities, while the transboundary nature obliges neighbouring states into regimes of cooperation (Carrier & MacLeod, 2005; UNEP, 2009). Although the mountain gorilla was recognised for its intrinsic value within the Western conservation discourse, extracting revenue from gorilla tourism was (and remains) the conservation method (Lanjouw et al., 2001). The emerging economic rational in the GVL connected the state to the market in new ways, as global capitalism commodified the gorillas and the surrounding flora and fauna for global consumption, and strategically coupled the reterritorialised space with extraterritorial capitalist economic networks (Berdegué et al., 2015).

The belief at the heart of ecotourism, at the heart of market-led conservation, is that capitalist markets are the answer to their own ecological contradictions, that of selling nature to save it (al Sajib et al., 2023; Büscher 2013). This belief rests on two assumptions: first, that by addressing environmental issues in the production and consumption process, capitalism can facilitate both accumulation without end; second, consumption can exist without negative consequence (Fletcher, 2013). Indeed, the casting of conservation as progressively opposed to the (capitalist) forces creating environmental crisis is especially problematic when the language of crisis, as the IGCP framed the near extinction of the mountain gorillas in 1991, is used to justify policies that produce negative social outcomes (Fairhead & Leach, 1996). Ecotourism arguably invests conservation programmes with the same destructive processes, values and outcomes as the forces that necessitated conservation in the first place. At the same time, ecotourism programmes as a response to environmental crises become opportunities for capitalist expansion, even creating a new legitimation for itself, that of the sustainable and rational use of nature. 'Conserving nature, paradoxically, seem also to have become the friend of capitalism' (Büscher et al., 2012: 7), together with the reproduction of its negative social outcomes. In this respect, colonialism is best understood not as history, but as a process that reproduces capitalist relations. Accordingly, questions are asked of the social effects of tourism in conservation areas, from the eviction and dispossession of communities in protected areas (Andersson et al., 2013), to the lack of and poor quality of employment opportunities in tourism programmes as a replacement to dispossession (Adams & Infield, 2003): do the macro gains for affected communities from global tourism outweigh the potential for facilitating conflict at the micro level? (Sandbrook, 2010).

The rendering of landscapes as an arena of global commodity also keeps hidden its negative effect on local and indigenous communities. Conservation that relies on funding from ecotourism and safaris like that in the GVL intervention engages in the creation of 'virtualisms' (Carrier, 1998), a virtual world of East African tropical rainforests that tourism companies believe Western tourists *expect* to find, with its images of charismatic fauna, like the mountain gorilla, designed to encourage Western donor funding and visitors. But these ideas, discourses and values that

have transformed the GVL landscape – encouraged and facilitated by the epistemic conservation community - are of a global imaginary in which the Rwandan, Ugandan and Congolese who live in or around (and guard) conservation areas are largely invisible (Garland, 2008), while through violent evictions and establishing militarised borders traditional, subsistence livelihoods and communities of local and indigenous people are demolished.

This ‘green militarisation’ – a crisis narrative adopted to justify the creation of militarised borders around the gorilla parks in the name of conservation and tourism - coupled with highly repressive and coercive policies on local people living in park-adjacent communities served to enforce new territorial arrangements (Brockington & Igoe, 2006; Lunstrum, 2014; Marijen, 2022; Ramutsindela et al., 2022; Shaw & Radameyer, 2016; Trogisch, 2021). Violence committed against local people entering the park illegally, together with violent displacement and eviction of tens of thousands of Batwa people from the forests, served as tools of reterritorialisation, of the epistemic conservation community deploying its access mechanisms to influence state policy and state paramilitaries to create new access regimes, political relations and in/out group definitions in the name of conservation and gorilla tourism.

2.6.2 Institutional bricolage - Formalising collaboration

Regional peace was secured between Uganda, DRC and Rwanda in 2003, bringing an end to the (interstate) regional conflicts that had been a constant presence since the beginning of the Rwandan civil war in 1990. Soon afterwards, the epistemic conservation community in the GVL arranged forums where representatives of the partner states met frequently to sign trilateral statements, Memoranda of Understandings (MoU) and treaties affirming 1) that the GVL was a single ecosystem and was to be protected as such, and 2) obligations of collaboration towards to a formalised trilateral, transboundary, regional conservation management institution. After the necessarily informal and technical transboundary conservation of the 1990s, these formal conservation arrangements would further reshape forest resource relations between stakeholders, sharpen tensions between conservation goals and territorial sovereignty, and raise questions about the legitimacy of transboundary conservation authority. The framework

therefore turns to examining how these formal institutions and dynamics were constructed and legitimised from the informal collaboration of the previous 12 years (see chapter 5).

From informal to formal arrangements

Institutional bricolage conceptualises institutions in complex socio-ecological systems as formed, adapted and transformed from previous arrangements, that ‘mechanisms of resource management and collective action are borrow or constructed from existing institutions, styles of thinking, and sanctioned social relations’ (Cleaver, 2002: 16). The Greater Virunga Transboundary Collaboration (GVTC) is the formalised regional governance institution constructed by the epistemic conservation community from those existing informal transboundary institutions of the previous decade, institutions that drew in park employees such as regular regional meetings on neutral grounds, and joint/coordinated patrols of park personnel from more than one partner state. The GVTC eventually replaced the IGCP as the institution invested with authority for transboundary conservation interventions in the GVL. In constructing the trilateral institution, the ICGP deployed its exclusive access to international capital and normative conservation knowledge and authority to draw in funding for the GVTC.

Blending Multiple Institutional Logics

The formalisation arrangements saw the process of combining state sovereignty with ecosystem management, enshrined in an institutional evolution of MoUs and treaties, beginning with signatories of protected area authority (PAA) managers in 2004 to the 2005 Goma Declaration of the environment ministers from the partner states to the 2015 inter-government signing of the Treaty of the GVTC the formally established the GVTC. This process reconfigured the existing institutional logic of informal transboundary collaboration, formalising the collaboration’s problem-solving capacity, distributional attractiveness, and normative acceptability within a political legitimacy (Hall, 2016). For example, when forest borders disputes between the partner states emerged within its territorial jurisdiction, the GVTC was able to deploy its authority and institutional legitimacy to a successfully mediation. The GVTC was also successful in combining

problem-solving capacity with political legitimacy when organising and delivering regular gorilla censuses, deploying its diplomatic authority to facilitate cross-border monitoring teams.

Authority Through Distributed Agency

Carstensen & Röper (2021) identify how institutional bricolage – ‘here understood as a reorganisation of ideational and institutional elements from the existing institutional logic’ (1289) - can work as a strategy with which to organise or build support to develop institutions. This strategy sees social actors apply their knowledge, power and agency to build and reshape social relations, collective (transboundary) action, and resource management in new arrangements that suits needs and circumstances. The Greater Virunga Transboundary Collaboration represents a complex display of distributed agency that saw authority strategically deployed by multiple actors to piece together a novel conservation institution arranged from existing governing fragments. The partner states provided the political authority and legal framework to legitimise the cross-border described above, formalising what had been informal collaboration. International donors deployed their authority through funding conditions in demands for accountability and transparency, and for specific conservation outcomes. Local park staff maintained their position by embracing the new formalised structures, thereby lending the GVTC an institutional legitimacy among its operational actors. As new institutions of resource governance are adapted and shaped from what Carstensen (2015) called the ‘institutional debris’ of previous arrangements, institutional bricolage also emphasises the role and importance of placing historical and cultural contexts at the centre of debates over shaping institutional outcomes (Cleaver, 2012). In that context, the GVTC emerged from the institutional debris of colonial park management systems, post-independence state structures, international conservation norms and interventions, and park staff habits of cross-border collaboration.

Contradictions and Limitations

However, this arrangement of distributed agency ultimately created tensions of legitimacy as authority for managing forest resources in the GVL was decentred from the state. Decision-making centres were equally dispersed across multiple centres of power, from the GVTC

Secretariat based in Kigali, Rwanda, to individual protected area authorities, to the Council of Ministers within the GVTC governing framework. Governing authority had become simultaneously shared and contested, collaborative and contested. The GVTC Treaty, a treaty that gave the new collaboration arrangement its legal authority (if not a legitimacy among partner states) formalised this tension, establishing state sovereignty over forest resources while at the same time committing partner states to cede levels of sovereign authority to the transboundary conservation institution. As mentioned above, interventions in the Global South by global epistemic conservation community interventions can often create new neocolonial frontiers that echo processes of dispossession and territorialisation, in which indigenous knowledge, local livelihoods and even state interests can be sidelined. Through these bricolage processes, policies in the GVL such as protected areas, exclusion zones, threats of fines and imprisonment, the structure, governance, and operations of contemporary conservation institutions like the GVTC have reproduced power imbalances that have led to violence against, and marginalisation of, park-adjacent local communities and the Batwa indigenous people.

2.7 Implications for transboundary governance

The intersection of the conflict of authority in conservation and differentiated stakeholder access mechanisms created a unique situation in the GVL. Similar dynamics of transboundary collaboration led to both the success and the eventual paralysis of the conservation intervention. Partner states enter into what Mattli (2000) calls a ‘sovereignty bargain’, in which states voluntarily accept some limitations in exchange for certain benefits, in this case ecotourism revenue, and that the benefits of integration, ‘namely increased national prosperity, is worth the cost of diminished national policymaking autonomy and power’ (149) – a trade-off between securing territorial control and achieving conservation outcomes.

However, transboundary conservation of the GVL frames a situation where state sovereignty collides with ecological connectivity. In the years of informal collaboration (1991 – 2003) the global epistemic conservation community, through the IGCP, deployed control over key access mechanisms — particularly international funding and scientific knowledge— to create a parallel

authority structure to operate across borders and crucially expanded the community to include staff from the contiguous gorilla parks in Uganda, Rwanda and DRC. By maintaining an informal, 'apolitical' framing the IGCP managed to coordinate conservation action between government staff from the three states in remote border spaces, even while the same state governments were in violent conflict, often in those same spaces. This apolitical framing allowed regular joint and coordinated patrols – patrol teams made up of rangers from more than one country – to cross borders in the name of conservation, crossings that constituted violations of sovereignty. However, the formalisation of the collaboration and escalation across political scales altered these collaborative dynamics. The creation of the GVTC, the trilateral institution owned and run by the partner states and invested with the authority to negotiate transboundary conservation interventions, replaced the informal, 'apolitical' collaboration driven by the IGCP. Formal transboundary conservation areas often force states into negotiations over sovereignty that are irreconcilable with national interests (Ramutsindela, 2024). Trilateral negotiations between the partner states at the GVTC brought a commitment to securing transboundary conservation goals into direct conflict with maintaining territorial sovereignty. One of the consequences of this tension between states has been an absence of joint or coordinated patrols since 2016, with an increase in poaching in the forests as a result.

The breakdown of the collaboration reveals how authority and access operate differently across scale. Mechanisms that worked at the local level and informal scale (personal relationships, habits of collaboration, shared training and a shared goal), broke down when collaboration was elevated up the political scales and met geopolitical concerns of sovereign security (Duffy, 2006). The commodification of gorilla tourism also transformed what was a shared endeavour into competitive race, as states sought to maximise revenue by increasing attempts to control a mobile resource that was/is not constrained by borders (Wolmer, 2003). These reflections may suggest that, rather than formalising collaboration through inter-government institutions, maintaining an ambiguity to authority and access in transboundary conservation may be a beneficial strategy in the GVL. In this ambiguity, conservation is purposely 'rendered technical', reposing political questions as matters of technique to more successfully negotiate

sovereignty claims (Li, 2007). This would, in turn, recentre the authority, legitimacy and access mechanisms of the epistemic conservation community in GVL transboundary interventions, thereby de-escalating conservation governance as a state concern.

2.8 Conclusion

This research is based on the premise that conservation in the Global South, particularly in sub-Saharan Africa, can be best understood through contestations of authority and struggles over access to forest resources. The conceptual framework by which the thesis is informed is grounded in and shaped by postcolonial forces creating frontier spaces in conservation, and in how the legacies of colonial resource governance continue to shape contemporary conservation regimes. The analytical tools of territorialisation and institutional bricolage reveal how the epistemic conservation community deployed access mechanisms as concrete tools for reconfiguring human-nature relations in the GVL that political ecology explores.

While political ecology exposes conservation as an inherently political - producing winners and losers, reshaping social relations, reproducing colonial legacies - examining the actions of the epistemic conservation community reveals *how* these political outcomes are achieved (see fig. 3). A territorialisation analysis demonstrates the transformation of the GVL landscape from a space of customary use to a militarised conservation territory for capital accumulation, which political ecology identifies as a fundamental reshaping of human-nature relations. Such epistemic conservation communities maintain access to, and influence over, state authority and policy formation, shaping both deterritorialising *and* reterritorialising processes. The production and deployment of knowledge particularly by the epistemic conservation community can be conceptualised as a form of power that constructs uneven social ties, responsibilities, and practices that have historically evolved since colonial penetrations in the Global South that has material, ideological and discursive dimensions (Sultana, 2022). A commitment to deploying Western conservation knowledge in the forest space serves to delegitimise the knowledge, traditions and forest relations of the indigenous Batwa, people who have lived in and with the

forests for generations, while keeping local communities alienated from neighbouring forest resources.

Efforts to render the GVL intervention as simply a 'technical' intervention (Li, 2007) while orchestrating deeply political transformations reveals how the epistemic conservation community operated to depoliticise gorilla conservation intervention to achieve its conservation goals. An institutional bricolage analysis revealed how the epistemic community continued to deploy its access mechanisms to formalise the informal collaboration of the 1990s and create a novel form of transboundary conservation authority, albeit an authority that is contested by state sovereignty. This analysis also demonstrated how the new conservation governance in the GVL reproduced power imbalances despite claiming collaborative intent. The continuing marginalisation of the Batwa, excluding local people from resources found in forests on their doorstep, while transforming forests into tourism commodities, demonstrates how the global epistemic conservation community deployed a variety of access mechanisms that served to entrench colonial legacies and logic.

The following empirical chapters further unpacks how the epistemic conservation community deployed those access mechanisms to transform the GVL landscape, examining the impacts of these transformations on local communities, and asks questions about sustainability of imposed arrangements. The empirical chapters also reveal outcomes and resistances to conservation authority in the GVL: the role of neocolonial power in shaping conservation knowledge regimes, and in disseminating conservation knowledges across scale to influence political legitimacy; the tensions between global visions and local realities of conservation; the impacts of capitalist conservation and ecotourism in shaping both relations of authority and the lives and livelihoods of local and indigenous communities; and the complex role of the state and sovereignty in transboundary conservation interventions.

Chapter 3 Methodology for examining multiscale authority dynamics in transboundary conservation

3.1 Introduction

This chapter presents and describes the methodologies adopted to carry out research on the political and social relations of multiscale, transboundary conservation in the Greater Virunga Landscape (GVL). The first half of the chapter explores the broad theory that underpins my approach, presenting the ontological and epistemological framework in which the research is located, and demonstrating how these understandings of truth and knowledge inform and shape the thesis' methodology and data analysis tools. The philosophical framework goes on to explore how postcolonial political ecology provides a grounded understanding in which the research interprets themes, patterns and events that emerge from the empirical data. The chapter goes on to justify the choice of case study, before broadening the discussion into a reflection on ethics, positionality and power in fieldwork as a white, British man, interacting with mostly sub-Saharan African participants. The second half of this chapter introduces the specific methods adopted for data collection and analysis. This half discusses how participants were recruited, how interviews were carried out, and how the confidentiality and anonymity of participants was secured. Finally, I describe the processes of analysis, coding, synthesising, and reporting of the data.

3.2 Philosophical foundations, design theory, and positionality

3.2.1 Epistemological framing

Epistemology is concerned with knowledge discovery, asking whether knowledge is hard, real, and transmittable (positivist), or whether it is softer and more subjective, reflective of personal experience and insight (interpretivist) (Cohen et al. 2006). Constructivist ontology is usually married with an interpretivist theory of knowledge, a theory that builds upon constructivism to reflect a socially constructed reality, interpreted subjectively by the actor. However, case study analysis straddles both these epistemologies. Scientific realism, for instance, provides the

theoretical basis for case study analysis (George and Bennet, 2004). The constructivist analysis at the heart of this research instead investigates the socially and historically constructed, multiple meanings of individual experiences lived by social actors in the Virunga forests, from indigenous communities living in or around the parks, to park authority staff and political elites. Indeed, this project builds on constructivist assumptions by framing an advocacy or participatory research inquiry, explicitly positioned within political discourses. This radicalised discourse raises important questions about the control and the production of knowledge, and its interaction with environmental actors, particularly the impact on indigenous people and local communities.

So, this project adopts a perspective situated specifically in *social* constructivism, which sees knowledge as intersubjectively co-authored or co-produced through social interactions, language and shared meanings (Berger & Luckmann, 1966). Social constructivism shares compatibilities with poststructuralist approaches in political ecology and science and technology studies that view environmental knowledges as discursively mediated constructions, laden with cultural values, tropes, invisibilities, and relations of power that privilege certain representations (Peet & Watts, 1996; Demeritt, 2001). A social constructivist epistemology further foregrounds positionality and multiple possible ways of framing conservation issues, locating, for instance, local indigenous perspectives as just alternatives to Western scientific discourses. It enables the interrogation of the privileging of technical, managerial narratives, and the ‘rendering technical’ of environmental problems, in ways that obscure political contestations and marginalise dissenting subjectivities (Li, 2007; Ferguson, 1994).

A social constructivist epistemology grounds an integrated theoretical framework, one designed to problematise dominant assumptions about governance authority and resource access in the GVL, expose uneven power relations, highlight historical contexts, and centre local and indigenous voices (Albert et al., 2020). A multiscalar bricolage conception re-imagines conservation regimes as provisional social constructions, allowing interrogation and challenges to exactly whose interests and worldviews shape unfolding priorities, discourses and decision-making. Critical institutional approaches explore how institutions dynamically mediate

relationships between people, natural resources and society, 'particularly through the explanatory power of the concept of bricolage for better understanding institutional change' (Cleaver & de Koning, 2015: 1). This methodological framework, then, provides conceptual tools to ensure the research is unaffected by the dominance of hegemonic representations and ideologies that erase or devalue local experiences, whilst facilitating the explanation and critique of both continuity and change in evolving institutions.

3.2.2 Grounded theory approach

The grounded theory approach underpinned data collection and analysis in this research. Grounded theory is rooted in approaching chosen phenomena without preconceived theories or hypotheses, but instead creating the freedom to allow theories and concepts to emerge from the data through an iterative process, a process of building, refining, and improving a project or research initiative (Glaser & Strauss, 1967). Grounded theory's flexibility in developing theories that have the potential to account for interconnected, emerging phenomena is perfectly suited to this research in the GVL, research that has multiscalar geographical, political and social parameters. Furthermore, the emphasis on developing theories and ideas that are grounded in empirical data positions grounded theory in a critical realist tradition that, while recognising the existence of objective reality, still understands that knowledge is socially constructed, and that the role of the researcher themselves interprets, shapes and constructs meaning from the data (Bhaskar, 2008). From a postcolonial perspective, social constructivist epistemology shapes grounded theory's focus on understanding social processes and meanings from the perspectives of the research participants. The intention here is to create space to challenge and decentre dominant Western narratives and uncover marginalised perspectives that might otherwise be overlooked (Berger & Luckmann, 1966; Chilisa et al., 2017).

Indeed, I adopt the term 'Global South' throughout this thesis as shorthand for spaces, communities and nations found primarily in Africa (and in Latin America, Asia, and Oceania) that are described as being historically marginalised in the global economic and political order due to colonialism, imperialism and unequal development, but also to reflect the 'recognition of

alternative perspectives on global issues from formerly colonised or peripheral societies' (Dados & Connell, 2012: 12-13). As already discussed, this research joins others in centring marginalised voices by challenging the Western dominance in theory production (Connell, 2007) and, through interviews in local communities and with Batwa people, emphasises the role of pluralist and alternative knowledge systems found in the Global South (Mbembe, 2015; Mignolo, 2010).

3.2.3 Situating the case study

The GVL represents a compelling case to explore issues of contested authority in conservation interventions, reflecting dynamics particularly found in Global South conservation. Spanning three postcolonial states with long histories of political and violent conflict, the mountain gorilla conservation programme reveals how conservation can transform landscapes into sites of competing claims to legitimacy. An entanglement of Western NGO strategies, market-led logics and state power has created fragmented and contested forms of environmental governance that has reshaped the GVL forests. This case allows for a grounded examination of how postcolonial and poststructural political ecology theories become visible in practice, revealing how seemingly apolitical strategies can produce deeply political outcomes, embedded within broader struggles over resource control, state sovereignty and territorial authority. Additionally, the transboundary nature of GVL conservation reflects moves within global environmental governance towards ecosystem-level management (Söderström et al., 2016), diffusing conservation authority to multiple sites while simultaneously creating new supranational governance arrangements. These new transboundary arrangements, operationalised through peace parks, transfrontier conservation areas, and transboundary protected areas, raise issues of state sovereignty over national resources, while at the same time can reinforce existing power asymmetries rooted in colonial histories and contemporary inequalities.

Understanding the political ecology of the Virunga forests in the GVL, its history as a series of contiguous protected areas, can be thought of in reference to Blaikie and Brookfield's (1987) broad definition of 'combining the concerns of ecology with a broadly defined political economy' (13). Indeed, the origins and continued existence of the national parks that make up the Virunga

forests, in fact the majority of national parks across the African continent, can be framed by theories of the social production of nature (Neumann, 2003), emerging as a European creation of landscape.

The Virunga National Park in Zaire/DRC, and the Volcanoes National Park in Rwanda, were the first national parks in Africa, created in 1925 by the Belgian colonial government. Originally named 'The Albert National Park' in Zaire after the-then Belgian King's visit and subsequent interest in gorilla welfare (changed to Virunga National Park in 1969), Virunga National park was a single contiguous park that straddled the Rwanda/Zaire border (Schaller, 1960). In 1931, the London-based Society for the Preservation of Fauna of the Empire (SPFE – later to be renamed Flora & Fauna International) spearheaded a global (European) campaign to create national parks across Africa. This initiative led to the 1933 'Convention for the Protection of the Flora and Fauna of Africa' in London that, in turn, resulted in an international agreement between the colonial powers on the SPFE's initiative. Consequently, in the 1930s, the British government created as gorilla sanctuaries the Bwindi and Mgahinga national reserves in Uganda (Plumptre et al., 2006), the same sanctuaries that were awarded formal national park status in the early 1990s as part of the gorilla protection project. As reflected in King Albert's efforts to designate two heavily biodiverse areas in the GVL as conservation parks, the SPFE report made it clear that the preservation efforts from colonial conservationists were largely to secure wild nature in Africa, motivated by a fear of losing their particular vision of Africa as a primeval, undisturbed wilderness (Anderson & Grove, 1987). This is what Neumann (2003) describes as a process of nature production, rather than nature conservation: 'The definition, designation and regulation of national parks were, to a large degree, concerned with making ecological reality conform' to a Europeanised imagination of a wild Africa (243).

African men in these conservation areas were framed as savage, uncivilised and barbaric, cruel poachers using traps and snares to capture wildlife, characterisations positioned against portrayals of European sports-hunters as environmentalists who care about conservation and are concerned about reducing the suffering of individual animals (Duffy, 2014). As a result, after the

creation of the Virunga and Volcanoes parks thousands of indigenous people lost their land rights and/or were forcibly evicted from the parks (De Bont, 2015, Inogwabini, 2014). Between 1930 and 1955, some 85,000 of the indigenous population were removed from the forest (Jackson, 2007). Similarly, the 1938 gazetting of land to create the Bwindi and Mgahinga reserves in Uganda introduced a state-sanctioned resource access regime that drastically reduced forest access to the Batwa, who had for centuries lived in and from the forest (Namara, 2006). In 1960, the Ugandan Wildlife Authority (UWA), began an official eviction programme from inside the reserves. Finally, with the reserves being given national park status in 1991, in partnership with Western conservation NGOs, they were evicted from the area completely (Mukusa, 2014; Ronald & Emmy, 2019).

The transition in the 1960s to independence failed to alter colonial conservation logics in the Global South and in the GVL. Western conservation NGOs assumed the roles of the former ruling European states, framing indigenous Africans as a threat to the exotic biodiversity of the continent that required Western management, knowledge and expertise (Wondirad et al. 2020). In 1991, the International Gorilla Conservation Programme (IGCP), itself formed of the three NGOs that have colonial-era roots, created binaries in the GVL that framed Western knowledge as superior to indigenous, and prioritised non-human nature over human homes and livelihoods. The commodification of nature through ecotourism and introduction of capitalist logic into gorilla conservation similarly deploys Western knowledge and practices into the GVL, entrenching patterns of asymmetrical power relations and patterns of dependency that echo colonial practices of resource extraction.

Therefore, the complex entanglement of power dynamics, contestation of authority, and inequality within the GVL conservation intervention, the colonial histories of Uganda, Rwanda and DRC, and the impact of postcolonial conservation on local and indigenous communities requires a deep consideration of positionality and ethical considerations when conducting research in the area. Understanding how identity and institutional affiliations may reproduce and/or reflect existing power symmetries, and reflecting on how that might impact field work

interactions and data collection strategies, is a fundamental requirement for conducting responsible research.

3.2.4 Positionality, ethics, and reflexivity

*'The White Horse is the best bar in Kabale (Uganda) for lunch. It was built by the British for their officers in the 19th Century.'*¹

Taking a social constructivist/critical realist position makes it essential for the researcher to interrogate their own role in the research and their impact on the outcomes. This section prioritises an examination of my own position in this regard in terms of positionality in carrying out fieldwork, ethical issues to consider, and reflexivity in understanding the contexts and the nature of my relationship and interaction with interview participants. Positionality refers to how one's identity markers, like socioeconomic status, race, nationality, gender, sexuality, and ability status, among others, shape the way that interviewees and participants in the research interacts with the researcher, how those markers shape relationships, and how, ultimately, those relationships shape the results of the research (Rose, 1997). Katz (1992) claims that 'Feminism, decolonisation, and "new social movements" have decentred the geopolitical power of the "First World", and ruptured the relations of exploitation, domination, and imperialism that undergird it and the authority of the white, male, ruling class, Western subject' (495). In that spirit, from the very beginning of this research project, I, as a white, British man in former European colonies in sub-Saharan Africa, remained keenly aware of how my position, vis-à-vis the majority of my interviewees, impacted and shaped the perception of me by the African participants, and the extent to which their answers to my questions would be subsequently shaped. Within a grounded theory approach to data collection and analysis, that perception would go on to shape the themes that emerged from the data, which would then impact both the data analyses and the outcomes. The critical turn in geography that this concern of positionality reflects is the ongoing concern that emerged in the 1970s about performing research in the Global South, where the

¹ Anon (Interview No. 47): 19/08/2022

South is understood in a postcolonial context (Griffiths, 2016). Given the imperial origin and history of geography as a discipline, no geographer can/should be ignorant of geography's 'past littered with the skeletons of murderous neglects and encounter' (Robinson, 2003: 277). Therefore, I took great care to avoid, as practically as possible, situations that might cause demonstrations of the power imbalances.

My background is one of activism in both antifascism and antiracism, and politically in the Green Party, a combination which has made me critically aware of the intersection of politics and environmentalism, both domestically and globally, reflected in political ecology theories. With that understanding, the approach to my fieldwork was informed by 'the increased attention to the nexus of power and knowledge and, in particular, to how the researcher's geographic location, social status, race, and gender fundamentally shape the questions asked, the data collected, and the interpretation of the data' (Sundberg, 2001: 180). This awareness was important in maintaining the perspective that my fieldwork in Africa could still be productive and liberating, as long as I cantered critiques and critical awareness, and that my research remained politically engaged, materially grounded, and institutionally sensitive (Nagar, 2002). As a working class researcher from Liverpool, I did reflect on whether social class, as an aspect of subjectivity in African communities, might move my reflexivity towards a greater commonality: after all, 'geography's imperial past, as an *elite* historiography, cannot draw the contours of Western researcher relations with postcolonial 'Others'' (Griffiths, 2017: 2). On further reflection, given the city of my birth, any notion of affinity with subaltern communities in sub-Saharan Africa would be challenged by the foundations of my privilege and position being historically and very specifically built on the trans-Atlantic slave trade.

Ironically, then, that my main mechanism of access with many participants came through my support of Liverpool Football Club (figure 5). While my positionality was not fixed (Sultana, 2015), it was definitely context dependent. Being male, I felt, allowed perhaps greater access and



Figure 5. The Rwandan Reds at the Nyange Genocide Memorial. (Image author's own)

authority in countries that are still heavily patriarchal (Silberschmidt, 2005), certainly when interviewing the overwhelmingly male park and NGO staff. This social negotiation facilitated the building of important informal relationships between interviewer and interviewee, breaking down cultural barriers by discussing Premier League football, before and after formalities. While the majority of interview participants, annoyingly, supported Arsenal, to the many Liverpool FC fans I did meet I was able to gift LFC-branded presents (pens, scarves, keyrings etc.) that the football club itself had sent me to take to the region.

The most remarkable event during my fieldwork was related to this bond. While in Kigali, I was invited by the Rwandan Reds (the Rwandan Liverpool FC supporters' club) to join them on their annual event to mark the anniversary of the 1994 genocide of Tutsi Rwandans (figure 6). This extraordinary day involved over a hundred Rwandan Reds members travelling on busses to a memorial site in rural Rwanda, delivering a large bunch of flowers on behalf of the club, and donating a number of cows to local survivors in the area, or families of survivors, who might be struggling otherwise. Owning a cow in rural Rwandan society serves a number of roles: first, a cow provides a regular income in milk sales; second, theoretically, through successful animal husbandry, cows can provide a lifetime income; third, Tutsi are traditionally cattle herders, and,

historically, social standing is reflected in the number of cattle owned. So, the donation of cows to genocide survivors remains a practical and political act of immense generosity (Robertson, 2018). This event was then concluded by the hundreds of Rwandan Reds singing the Liverpool FC stadium anthem *You'll Never Walk Alone* to the survivors, which was at once the most affecting, beautiful and heart-breaking moment. A song written for the 1945 Rodgers and Hammerstein musical *Carousel*, adopted and refashioned into a song sung on the terraces of an English football team 6800km north of Kigali, had come to be a hymn of unity shared between two very disparate



Figure 6. With Rwanda Reds executive committee at Nyange Genocide memorial. (Image author's own)

communities united through common legacies of devastation and suffering, in the shape of 1994 genocide in Rwanda and the 1989 Hillsborough tragedy in the UK.

Furthermore, the Ugandan Batwa guide I worked with was also a Liverpool fan, and to thank him for his many examples of kindness and assistance, I was also able to give him my LFC shirt. My overall interactions with Batwa community groups were sobering and served to reinforce my position of privilege in the research process. As an historically marginalised and oppressed group, I encountered unimaginable levels of poverty in Batwa towns, and despair was the main theme that emerged from their stories and narratives during our interviews. Every Batwa group interviewed directly asked me to help their community, or be 'a champion' for them, in the UK. The extractive nature of my research was laid bare. Following McDowell (2001), I felt that a \$5 payment (5000 Rwandan dollars) each to Bata, and to each member of local communities, for participation in a focus group, represented 'a significant inducement' for participation, offering 'some form of reciprocation between interviewer and interviewee' to address the intrinsic power and wealth inequalities in the encounter (205, 206), while Meth & Malaza (2010) suggests that a financial benefit for participation can 'explicitly acknowledge' the disparities in wealth and power, potentially resulting in a more honest research encounter (150). However, no payment was made to employed officials, indigenous or non-indigenous, executive or non-executive, to reflect their position of relative power and authority

I occasionally found it hard to connect with some participants, likely due to my status as a *mzungu* (a Bantu word that means "wanderer" originally, currently used in predominantly Swahili-speaking nations to refer to someone with white skin). My position as a white European possibly elevated me to a one of suspicion, and as a consequence some participants remained guarded in our interviews or were more restrained in their responses. For instance, a number of political elites operating at governmental level in the GVL refused to have our interview recorded, only allowing me to make notes during the conversation, while no park official from the Virunga National Park in DRC was prepared to talk to me (see below). This suspicion may be for one of three reasons: first, my identity as a white researcher from a former colonial country; second,

because a previous European researcher in the area had acted unprofessionally, had reportedly broken ethical boundaries, and subsequently wrote papers critical of the conservation institutions; or third, that I was asking questions that were possibly politically sensitive. One interviewee, for example, stopped the interview early and verbally attacked me when I asked questions about the role of the army in border areas in the national park. Whatever the reason, although the social negotiation of my gender probably facilitated more openness in some participants' responses, my ethnicity and profession likely shaped negative interactions in others. These, and other incidents, I noted in a fieldwork journal that allowed me to reflect how my behaviour might have caused these reactions, and to consider ways I might alter my actions to avoid similar exchanges in future. My goal in the GVL, after all, was to explore how transboundary conservation programmes in Africa are shaped by human and political relationships in dynamics of authority contestation and access. So, attempting to write 'with' rather than writing 'about' social actors and vulnerable communities in conservation interventions, utilising the words and voices of participants extensively in the relevant sections, is a challenge that I endeavoured to sustain in order to redress concerns about marginalisation, essentialisms, and differences in representation (Sultana, 2016).

3.2.5 Limitations and weaknesses

The main limitation to this research was the inability to gain access to the DRC due an outbreak of violence and instability in the precise area targeted for field study. As the project had transboundary dynamics at its heart, being unable to collect adequate data from one of transboundary partners potentially diminished the quality of analysis. I compensated for this gap by conducting a limited number of online interviews with DRC conservation executives and relying on surrounding literature on DRC/Virunga conservation.

A further potential limitation of the research could be that the data was likely also shaped by participants who were uncomfortable or hesitant to relay information during interviews. Themes around army activity in the national parks and activity at the forest borders saw more than one participant refuse to answer, while three interviewees, all conservation executives in Rwanda,

refused to allow their interview to be recorded. At the same time, very few interviewees drawn from local communities in Rwanda were willing to level any criticism at the Rwandan government or the conservation programme that was impacting their lives. This may also intersect with my positionality as a white foreign researcher, thereby invoking suspicion of my motives, regardless of the assurances of anonymity. As a result, themes that did emerge from the limited data was cross-referenced with analysis from other, published sources; for example, human rights abuses committed by Virunga park guards has been well documented in academic journals, while the lack of criticism of the Rwandan government was cross-referenced with well-publicised oppression of criticism by the Rwandan government.

A further possible limitation in the veracity of my data was potentially the reliance on translators when carrying out interviews with local and indigenous communities. The translators, both in Rwanda and Uganda, were from the local areas, so I had to trust that their translations were objective and not edited to support the local people being interviewed. That said, objectivity might also be identified as a potential issue in the research, entirely sympathetic as I remain to the plight of local people being negatively impacted by the gorilla conservation regime, and a desire to expose the injustices and inequalities that have emerged as a result. My solution to this, and all issues of verification, was to triangulate this data with interviews with contemporaneous institution reports and interviews with conservation actors from the national parks who were active during the relevant periods. This led to a collection of data that broadly supported each other.

3.3 Data collection and analysis

3.3.1 Recruitment

I recruited interview participants from ten main groups for enquiry: 1) international funding bodies; 2) protected area authority (PAAs); 3) local, park-adjacent communities; 4) local indigenous communities; 5) chief park wardens; 6) park rangers and staff; 7) Greater Virunga Transboundary Collaboration (GVTC); 8) the International Gorilla Conservation Programme

(IGCP) and other international conservation NGOs); 9) local and indigenous NGOs; 10) local and global ecotourist companies; 11) regional analysts and academics with knowledge of the region.

These stakeholder groups were identified by reviewing historic academic publications featuring the GVL, together with extensive research of the main actors in the GVL conservation ecosystem. The selection criteria I adopted to prioritise participants from each stakeholder group was threefold: first, I targeted the most senior level of the relevant institutions; second, ensuring that I recruited participant from non-executive as well as executive level to ensure I collected a broad array of narratives; and third, I followed the snowball technique, interviewing further stakeholders identified by current interviewees, that led me to a greater diversity of participants. The snowball technique was particularly useful when identifying non-academic Western analysts and accessing members of local communities and executives from indigenous NGOs.

3.3.2 Social actors to the GVL gorilla conservation intervention

Below (table 1) is an introduction to the social actors to the GVL conservation intervention, briefly exploring the key relationships of each in the conservation intervention. There are also two social actors that impact relations of authority and resource access in the GVL that were not targeted for participation in the research, due to security concerns and lack of engagement respectively: violent rebel groups, and security organs. Table 2 also introduces a consideration of key non-human actors that impact or are impacted by the GVL conservation intervention.

Table 1: Social actor groups in the GVL conservation intervention

Social groups	
International funding bodies	Donates funds to both state governments specifically for conservation/development interventions, and to NGOs working in the GVL conservation regime.
State governments	Partner states own and manage protected areas and natural resources within their borders, frequently in partnership with conservation NGOs. Ministers and civil servants responsible for the conservation or the national parks meet to discuss landscape level conservation issues with the GVTC management structure.

Protected Area Authorities (PAAs)	The Rwanda Development Board (RDB), Uganda Wildlife Authority (UWA) and the Institut Congolais pour la Conservation de la Nature (ICCN), are the three protected area authorities (PAA) that manage their states' national protected areas. DRC and Uganda's PAAs are located in the government ministries concerned with environmental management. Rwanda's PAA is embedded in their development institution that combines environmental and national park management with business development, which is itself located within the Ministry of Information Communication Technology (ICT) and Innovation.
Head park wardens	The head wardens of the three contiguous gorilla-dwelling national parks are at the head of large team of public park employees that are responsible for a wide range of competencies: research and monitoring gorillas and other wildlife; tracking and surveillance; habituating gorillas for human contact; maintaining park tourism infrastructure; coordinating anti-poaching security programmes and patrols; industrial relations; 3 rd party relations; strategic planning; transboundary planning; and community relations.
Park staff	Overwhelmingly men, park ranger duties are split between gorilla tracking, direct tourism duties (office work, drivers etc), and anti-poaching security patrols. There are several types of security patrols in the forest, which can last from a few hours to a week. Ranger patrol posts, spread along park boundaries, are situated in park-adjacent communities. Rangers are recruited from across their respective countries and are expected to have high school education levels as a minimum.
Local communities	Local people living in communities bordering the national parks. Suffer from frequent human/wildlife conflict, but benefit from development funds drawn from revenue raised through gorilla tourism.
Indigenous communities	The Batwa (or, 'Twa') are a group of indigenous Central African forager tribes that had lived in the East African forests for generations and are said to be among the oldest ethnicities in Africa.
Greater Virunga Transboundary Collaboration (GVTC)	An interstate diplomatic forum for partner state representatives to discuss and formulate transboundary conservation policies.
International Gorilla Conservation Programme (IGCP)	A coalition of three Western conservation NGOs – WWF, AWF and FFI (see chapter 4 for more information). AWF left the coalition in 2015, replaced by Conservation International. The IGCP began working in the GVL in 1991 and is the main gorilla conservation NGO operating in the GVL. The IGCP support PAAs in delivering conservation policies.
International conservation NGOs	In addition to the IGCP, several international conservation NGOs deliver conservation and development programmes in the GVL. These organisations work in partnership with PAAs, the GVTC, and the IGCP to deliver tendered projects or address anticipated needs in the conservation regime.
Local NGOs	NGOs created and run by actors local to the GVL engage with state authorities to fulfil government contracts in the GVL or surrounding communities, delivering conservation, development or legal outcomes.

Virunga Foundation	A London-registered NGO, the Virunga Foundation has managed the Virunga National Park since 2014, having secured the public-private partnership contract with the DRC state in 2014. Virunga Foundation lists the European Union as its main funder, and the billionaire US hedge fund manager and philanthropist Warren G. Buffet has been a large donor in recent years.
Ecotourist entrepreneurs	Local and international companies offering safaris, treks, experiences and gorilla-trekking packages in the three national parks. Companies ranging in size from large international tourism agencies to local entrepreneurs taking advantage of the growing tourism market, offering more personalised services.
Security services	Regular state armies are present in all three national parks for security-related objectives. Armies conduct border security patrols, and security services also provide paramilitary training and support for park rangers. There are dedicated army units attached to the Mgahinga and Virunga parks.
Rebel groups	Two forms of armed groups are active in the GVL forests. First, rebel groups, with the aim of political violence. Second, so-called Mai-Mai groups. Rebel groups, such as the Forces Démocratiques de Libération du Rwanda (FDLR), are anti-government forces using the forest for cover and resource exploitation. Mai-Mai groups are community-based militia groups, formed to defend local communities and territory against other armed groups.

Table 2: Non-human geographies in the GVL landscape

Non-human geographies	
Mountain gorillas	Currently over 1000 mountain gorillas, spread between the three contiguous Virunga forests and Bwindi Impenetrable Forest in Uganda, a separate national park that borders DRC, 50km north of Mgahinga National Park.
Other flora & fauna	Elephants, buffalo, golden monkeys, and endangered species of birds, amidst dense tropical rainforest, are among non-gorilla animals that can be found on the slopes of the volcanoes in the transboundary Virunga forests
Protected areas/national parks	Mgahinga National Park, Uganda; Volcanoes National Park, Rwanda; Virunga National Park, DRC. Although there are a small number of inhabitants living inside the Virunga National Park, farming, hunting, fishing, logging and producing charcoal for livelihoods are prohibited activities. People from park-adjacent communities are forbidden from entering the parks.
Borders	Regularly patrolled by security forces, colonial-era borders not only partitioned the Greater Virunga Landscape but also divided local ethnic groups into new state identities.
GVTC Treaty	Signed in 2015 by the then-environment ministers of each partner state, the Treaty brought into existence the GVTC as a legal body, with diplomatic status, formalising transboundary collaboration at the governmental level.

3.3.3 Data collection strategies

The primary data collection method adopted was the conduct of a series of hour long interviews. The format of semi-structured, open-ended interviews offered a flexibility and dynamism in building a coherent representation of historical and current relations between the actors in the GVL case. Underpinning the interviews is the assumption that the participant either understands the role of their association with the park, or the creation of biodiversity conservation regimes, or the region's political dynamics, in varying subjective, or constructivist, ways (Coughlan, 2009). A flexible interview schedule, together with a spine of emergent themes, acted as a framework that guided the interview process and ensured that the data collected reflected the interviewee's personal experience, knowledge and views in the region (Bridges et. al 2008). This iterative process, repeatedly revisiting and revising data and interview schedules, allowed emergent topics to be discussed and followed, and open-ended questions allowed me to act on any unanticipated responses or newly emerging themes that demonstrated participants' intimate knowledge of the case (Tod, 2006). Complementing the interviews were nine focus groups of three or more participants, drawn from local, park-adjacent community living on the border of Volcanoes and Mgahinga national parks. Data from Congolese communities living adjacent to Virunga national park was drawn from a number of secondary sources (Hochleithner, 2017; Verweijen et al., 2020; 2022). The process of these focus groups ran along much the same lines as the interviews, following a flexible interview schedule of emergent topics. The only difference was, of course, a multiplicity of views and opinions, which produced contours of support, contradiction, and humour that provided extraordinary heuristic value to my research questions (Acocella, 2011).

3.3.4 Data collection and fieldwork

Data collection took place over two key periods. The global impact of COVID left uncertainty around whether I would be able to travel to East Africa for fieldwork. In that light, an initial exploratory, pilot study involving online interviews of international



Figure 7. Running a focus group in Rugarama, Rwanda. (Image author's own)

I returned to Kigali in early July. In the absence of travelling to DRC and Rumangabo due to a sudden breakdown of security (see below), I conducted several more interviews with Rwandan political elites in Kigali, and online interviews with Congolese political elites in Kinshasa, before attending the inaugural African Protected Areas Congress (APAC), held between 18th to 23rd July at the Kigali Convention Centre. Attending APAC were representatives from over 40 African states, global conservation NGOs, youth groups from across the continent, and conservation science groups, discussing current and future conservation in Africa. At this conference I secured interviews with senior executives from core GVL conservation NGOs, and made contact with conservation practitioners from key towns in Uganda. At the end of July, I left Kigali for Kisoro, a rural town in southwest Uganda, home to the Mgahinga National Park headquarters. My accommodation here was the Virunga Hotel and Campsite. In Kisoro, and in neighbouring Kabale, I secured interviews with Mgahinga National Park staff, groups from the Ugandan Batwa community, and executives from local conservation/development NGOs. One of these NGO executives secured a focus group with a dozen village elders in Rubuguli, drawn from a number of neighbouring park-adjacent communities. In mid-August, I travelled by bus to Kampala, the capital of Uganda, to interview senior conservation and political elites. At the end of August, I travelled back to Kigali for the flight home to the UK.

In total, I engaged 97 participants for this research project across three countries, either online or face-to-face: 57 in individual interviews and 40 in focus groups (see figure 8 and tables 3 and 4 for details). To assist in this data collection phase I kept a field diary to chronicle my thoughts and experiences, logging details of observations and reflections as the fieldwork progressed (figure 9). The diary proved useful for analyses of key moments during the fieldwork, positive and negative, lessons learned, and challenges to previously held assumptions. It also provided a critical reflective space to consistently re-evaluate my role as researcher, as well as researcher bias that might have emerged. Continuous attention was paid to my role as a white



Figure 9. Fieldwork laptop and diary.
(Image author's own)

British man in an African region of historic colonial crimes and violent oppression, a time when

European academic research in the area often assisted repressive imperialistic goals (Neumann, 2005).

Table 3: Fieldwork interviews and focus groups

Fieldwork location	Country	Focus Group	No. of participants	Gender (m/f)	Classification	1-2-1 Interviews
Ruhengeri/ Musanze	Rwanda	1	3	1M 2F	Community	12
Gisenyi	Rwanda	1	3	3M	Community	
Bugeshi	Rwanda	1	3	1M 2F	Community	
Kigali	Rwanda	-	-	-	Community	9
Cyanika	Rwanda	1	3	2M 1F	Community	
Kinigi	Rwanda	2	10	2M 1F 0M 7F	Community	
Colline Nyarugina	Rwanda	1	3	2M 1F	Community	
Rugarama	Rwanda	1	3	2M 1F	Community	
Kisoro	Uganda					6
Kampala	Uganda					3
Kabale	Uganda					2
Rubuguli	Uganda	1	12	6M 6F	Community	

Nkanda	Uganda					2
TOTAL		9	40	19M 21M		34
					Tot. no. of fieldwork participants	74

Table 4: Number and character of project interviews (fieldwork and online)

Institution	Nationality	Classification	Status	Number	Gender
IGCP	Regional	Executive	Current	1	1M
IGCP	Regional	Executive	Former	1	1M
IGCP	Western	Executive	Former	4	2M 2F
IGCP	Regional	Staff	Current	8	8M
IGCP	Regional	Staff	Former	1	1F
GVTC	Regional	Executive	Current	2	2M
GVTC	Regional	Staff	Current	1	1M
RDB	Regional	Executive	Current	3	2M 1F
RDB	Regional	Staff	Current	5	5M
UWA	Regional	Executive	Current	4	4M
UWA	Regional	Staff	Current	2	1M 1F
ICCN	Regional	Executive	Former	1	1M
Western conservation NGOs	Western	Executive	Current	4	1M 3F
Western conservation NGOs	Western	Executive	Former	1	1M
Western conservation NGOs	Regional	Staff	Current	1	1M
Local NGOs	Regional	Executive	Current	7	5M 2F
Academia & analysts	Western	-	Current	5	1M 4F
Academia & analysts	Regional	-	Current	1	1M
International funding bodies	Western	-	Current	1	1M
International funding bodies	Western	-	Former	3	2M 1F

Ecotourism business	Regional	Executive	Current	1	1M
			Total number of interviews	57	42M 15F
			+ 40 focus group participants (table 3)	97 total research participants	61M 36F
<p>Key</p> <p>Regional: Rwanda, DRC or Uganda Executive: political elites, NGO management, senior park staff</p> <p>Western: European or US Staff: non-executive employees</p> <p>Current: Currently in role Community: members of park-adjacent communities</p> <p>Former: Has since left the role</p>					

3.3.5 A note on data from the Democratic Republic of Congo

Plans for the original fieldwork period of the summer of 2020 was postponed due to the global COVID pandemic. The Rwandan government closed the country to all foreign visitors and only opened again late 2021. My fieldwork dates were consequently rescheduled to the summer of 2022, complying with international, British, and Rwandan COVID regulations. My base was Kigali, Rwanda, the location of the IGCP and the GVTC headquarters.

My initial fieldwork plan to travel to DRC in July was halted by intense fighting taking place in the target location. On May 26th, a month before I was scheduled to travel to DRC, the M23 group, a violent rebel army, attacked and occupied Rumangabo, a small town near the Rwandan border, and home to the headquarters of Virunga National Park. Rumangabo is also home to a major Congolese military base. At the start of the M23 invasion, the majority of the park staff were evacuated from Rumangabo to Goma, the nearest city, 50km to the south, and still under DRC state control, leaving a skeleton staff of forest guards. The DRC promptly closed all land borders between Rwanda and the DRC on June 17th. The fresh outbreak in fighting also saw the eastern Kivu provinces of the DRC listed as red by the UK Government's Foreign and Commonwealth Office, with the accompanying advice: 'Advise against all travel'. Consequently, the decision was made between myself, my supervisors and Lancaster University that I should postpone/cancel my fieldwork visit to Rumangabo, and transfer research interviews online. The M23 finally left Rumangabo in July 2023, long after I had left the region.

In addition to the instability in eastern DRC, Virunga National Park authorities also refused all requests for interviews. The one contact who did reply to my approaches from Virunga Foundation voiced the executive staff's collective suspicion of Western academics, formed after a 2020 report exposed human rights abuses and abuses of authority committed by Virunga NP staff against suspected poachers and in park-adjacent communities (Verweijen et al., 2020). The limited number of interviews secured with Congolese actors were conducted online and remained outside of the Virunga NP network (for example, ICCN political executives and DRC actors from the IGCP, from local NGOs, and the GVTC). Consequently, without access to Virunga

National Park executives and rangers, nor the opportunity to engage with park-adjacent local Congolese communities, there is a substantial, DRC-shaped gap in my thesis.

3.3.6 Data storage and confidentiality

Given the past political sensitivity and conflict between the partner states, full anonymity was assured to all interview participants. All subjects were made fully aware of the ambition of the research project through an information sheet, and consent was secured on a consent form before any formal interview, by either signature or, in cases of illiteracy, fingerprint signature (see appendix 1 and 2 for consent form and information sheet). In those cases of illiteracy, or in cases where English was not a familiar language, a hired translator translated the project information sheet, consent form, and questions and interviewee answers. The translator also signed all necessary consent forms. The consent form was clear in asserting that the interviewee would not be subjected to any coercion or pressure to participate, and that they were free to withdraw at any point, and with no explanation necessary. The consent form also assured confidentiality, and that all data that could suggest identity would be removed during data analysis. Furthermore, I provided an email address and local and UK phone number to all participants so they could contact me directly if they wish to withdraw at any time. Interviews were recorded on a digital recording device.

The data collected was anonymised at the transcription stage to ensure participants remained unidentifiable. Directly after transcription, the recorded data was immediately transferred from the recording device and stored as a password-protected file on the encrypted university OneDrive cloud. The recorded data was then deleted from the recording device. In accordance with University guidelines, recordings were deleted after a 12 month period, with the transcribed data to be stored securely for a maximum of ten years. *Ethical Approval for Research* was granted by the Faculty of Science and Technology Research Ethics Committee (FSTREC) on 8th October, 2021 (See appendix 3 for ethical approval document).

3.3.7 Data coding and analysis

A qualitative research project such as this involves making sense of data gathered from interviews, situated observations, and document analysis, and presenting themes that the data reveals (Caudle, 2004). To this end, I followed Merriam's (1998) recommendation that data collection and data analysis is best carried out as a simultaneous process, recommendations that feature in a grounded theory approach that identifies and describes patterns and themes emerging from the data-collecting process. Grounded theory approaches shaped subsequent data coding and analysis processes, following the strategy of generating categories of information (open coding), selecting one of the categories and positioning it within a theoretical model (axial coding), and then extracting a story from the interconnectedness of the categories (selective coding) (Strauss & Corbin, 1990). Data coding and data organising was performed within an emergent coding framework that identified themes directly from the data, engaging a hermeneutic method of analysis, or one of 'identifying or eliciting meanings, patterns and themes' (Goodrick & Rogers, 2015: 567), during the collection process.

The interviews and focus groups were transcribed using a combination of an automated transcription service (otter.ai) and by hand, printed and reread for familiarity. The transcripts were subsequently loaded into NVivo, a qualitative data analysis software programme designed to work with rich data by 'making use of multiple strategies concurrently – reading, reflecting, coding, annotating, memo-ing, linking, visualising – with the results of those activities recorded in codes, memos, journals and models' (Jackson & Bazeley, 2013: 68). During the open coding stage, several categories were recorded that had emerged across the data-collecting periods that continuously (re)shaped subsequent interview schedules. These themes roughly reflected the various stages, contours and impacts of the transboundary programme and the dynamics of contested authority and resource access in the GVL: first, the period 1990-2003, characterised by NGO-led informal collaboration and interstate violent conflict; second, 2003 to present, a period that saw formal conflict end, institutional evolution, and the corresponding extension and reinforcement of authority in resource access and management; third, the impact of global environmental governance processes on the GVL intervention, the impact Western forms of

conservation has had and is having on the socio- and political economy of the GVL, and the contemporary impact of gorilla ecotourism on local communities. Each of these categories was assigned a set of codes in NVivo, codes that reflected an emerging draft framework of empirical chapters. I reread the transcripts, coding the data against the thematic codes, coding that allowed space for the words and stories of the interview participants to shape narratives and analysis.

Next, each of the emergent categories were isolated, coded, and expanded, and positioned within a theoretical or conceptual framework that linked the themes and patterns to broader theories and ideas, in this case postcolonialism, epistemic communities, critical institutionalism, and theories of authority, power and resource access. The contours of each theme were continuously expanding, altering, contracting and evolving during the axial coding process, so I engaged in a second coding process, a cross-checking procedure aimed at ensuring the reliability of my analysis, searching for missed data for consistency of coding, and to identify anomalies in the data, and also to identify potentially disconfirming evidence. At this stage I also connected the identified themes to broader theories to provide broader contexts and empirical support for each narrative. Finally, the broader story of the interconnected narratives was drawn together from each collection of codes to create full empirical chapters that explored dynamics of transboundary conservation in the GVL. For example:

OPEN CODING: Themes of collaboration and friendship between park staff, in the midst of violent regional conflict, emerged in multiple interviews with conservation actors from both Western NGO and indigenous park staff who were active in the early stages of the transboundary intervention. Furthermore, a number of participants broadly discussed the emergence of a new, common identity between park rangers that exceeded that of their nationality, facilitated by informal policies of joint borderland security patrols performed by rangers from neighbouring countries working together. The emergence of these themes in the data led to the creation of three subcodes within the broader *Parklife* main chapter code (chapter 4), into which I coded relevant data related to the informal collaboration (Appendix 4): *Narrative of a park guard* recorded guard testimonies of the early 1990s; and *History of conflict & collaboration*. Within the

History of conflict & collaboration code I created two sub-subcodes: *Patrols*, to specifically categorise data about joint patrols, about which several participants spoke fondly and at length; and *EPB (environmental peacebuilding)*, for data in which peace, collaboration, and identity was mentioned.

AXIAL CODING: Through a number of readings of the data, the emergent themes identified reflected key features of environmental peacebuilding theories and strategies, so I utilised Nvivo's 'memo-ing' feature here, linking sections of the data to corresponding ideas and themes in the broader environmental peacebuilding literature. At the end of this stage of coding I had a set of themes that had emerged from the data, themes that had shaped subsequent interviews during the data collecting stage and were situated in broader academic theories during the axial coding process performed both in parallel and subsequent to data collection.

SELECTIVE CODING: The data coded against environmental peacebuilding contributed to a number of interconnected stories throughout the thesis, not least as a foundation that underpinned the creation of the transboundary epistemic community in section 4.3.1 *Deploying institutional bricolage to build trust across conflict borders*, but also in discussing the creation of the GVTC as a product of institutional bricolage in section 5.3 *Reterritorialisation in the Greater Virunga Landscape*, and as a concept challenged by the data in section 5.6 *The GVTC as a peacebuilding authority?*

3.4 Conclusion

I have used this chapter to examine and justify the methodology I adopted for the research. Given the multiple sites where authority in the GVL is dispersed, interviews allowed me to draw out wide and often competing narratives around a complex set of themes and patterns that emerged from the fieldwork data. The main risk to the validity and reliability of the data, though, would potentially be the fear and/or concern shown by some participants about the use of their interview data, despite written and verbal assurances otherwise. This was an issue that I encountered a number of times, implicitly and explicitly. For example, a number of park authority

executives in Rwanda refused to have our interview recorded; staff at the GVTC were wary after a previous Western researcher had, in their view, misrepresented them in her consequent publications; and local people in Rwanda, although free to speak in a private room, rarely provided criticism about the conservation programme or park authorities. My response to try to anticipate and overcome these risks was to acquiesce to any demand made of me in order to put the participant at ease and present my credential and contact details (and university contact details) to assuage suspicions of my motives. I also took the opportunity to reflect in the thesis on the power relations between social actors, relations intrinsic to the positions of authority within the conservation discourse, and how these relations might impact wider conservation outcomes. Furthermore, I attempted to overcome any perceived power imbalances with payment to local people, and quite often by an engagement with the mostly male participants in a discussion on professional football, which I felt helped bring us onto common, more balanced territory. With that in mind, the study makes no claims, beyond representing the perspectives of a limited group of people representing a range of organisations and social groupings, conducted at a single point in history, and mediated through the relationship with one particular researcher. Despite its shortcomings, considerable efforts were made faithfully to represent the voices of the available stakeholders, with the hope that it may generate beneficial lessons for all involved.

Drawing on primary source interviews, secondary data from grey literature, participant observations and historical records allowed me to gather and produce rich, detailed and in-depth data around the transboundary conservation intervention over the past 35 years. A multiscale analysis that spans local, national, regional and global levels provided a nuanced exploration of the political, social and economic realities that impact conservation actors. My goal, as described above, is to write ‘with’ rather than ‘about’ the social actors in my research, a motivation that shaped the PhD’s narrative style. Weaving together historical context, theoretical support, and empirical data into cohesive narratives shaped a rich story, told ‘with’ those performing the conservation. This process of triangulation, of supporting empirical data with academic evidence, reports, and historical documents, strengthened the methodological rigour of the research. The thematic structure and ordering of the chapters allow for situated

and time-specific analyses, telling the important and complex story of how, in the midst of high levels of regional violent conflict, three conflicting states collaborated in saving the mountain gorilla from extinction.

Chapter 4 Parklife: Epistemic communities and the construction of knowledge at a contested frontier

‘The countries had scientists from around the world arriving and telling them that they had mountain gorillas and needed to protect them. There was increasing global attention and so had to be seen to be doing something to help.’

- Anonymous, Western NGO executive²

4.1 Introduction

This chapter focuses on the critical period between 1991 and 2002 in the East African Great Lakes, a time when violent conflicts between Rwanda, Uganda and DRC beset the region, and how epistemic conservation communities emerged as influential actors in reshaping authority and resource access in the region towards gorilla conservation. In the heart of the conflict, against the backdrop of civil war, genocide and inter-state conflicts, local and international conservation organisations, researchers, and actors formed scientific and policy networks that leveraged knowledge, expertise, and collaborative efforts to protect the critically endangered mountain gorilla population in the transboundary Virunga tropical forests. Through a qualitative analysis of primary source interviews, secondary source papers and articles, and historical records, this chapter answers the first research question: *‘How did ‘apolitical’ epistemic communities reshape the Greater Virunga Landscape frontier, influence state authority, and transform resource access in a conflict arena?’* The chapter reanimates the violent history of the three protected areas in question, building a sociology of the Virunga forests where, far from conservation being ‘inherently apolitical’ (Adams, 2015: 64), protected areas are reconstituted as ‘sites of social production and interaction’ (Michel & Backhaus, 2019: 172) and ‘complex social-ecological systems’ (Cumming, 2016: 46).

² ANON (Interview No, 26): 17/04/2017)

The chapter introduces the Virunga forests as a frontier space, a landscape in which existing social orders are dissolved, and ‘ideas of what constitutes the nature of resources, as well as the *rules* that govern their use and control’ are reworked (Rasmussen & Lund, 2018: 389). The analysis explores the roles, relationships and narratives of key actors within the frontier, highlighting the significance of epistemic communities in addressing complex challenges that were at once global, regional and local. Epistemic communities in the GVL fostered informed decision-making that led to the successful institutionalisation of transboundary ecosystem management and mountain gorilla protection, challenging customary authority and existing resource access arrangements. The conditions in which the epistemic conservation community operated is contrasted against the political violence of the region, seeking to understand the dynamic co-existence of violent conflict and cooperation between the same state actors (Martin et al., 2011).

The chapter addresses a number of gaps in the literature on epistemic communities. First, studies on epistemic communities tend to focus on stable and cooperative political environments, neglecting conflict-affected and fragile states (Barnett & Finnemore, 1999; Gupta et al., 2015; Leach & Scoones, 2015). This chapter specifically examines how transboundary epistemic communities operate in contexts of protracted conflicts, and between states with weak governance structures. Secondly, the majority of literature on epistemic communities has been generated from and about Western and developed country contexts (Jasanoff, 2004). This case study explores local, regional and global dynamics from a non-Western or Global South region, while at the same time uncovering power dynamics within the GVL epistemic communities. The third contribution to the epistemic communities literature explores how power imbalances, hierarchies, and exclusions shape knowledge production, dissemination, and decision-making processes where ‘apolitical’ Western conservation science is applied to conservation geographies in the Global South (Leach & Scoones, 2015).

To that end, the chapter first briefly explores the history of gorilla conservation in the GVL, introducing important steps as to how international conservation NGOs reshaped the GVL into a frontier, and reveals how the creation of a broader, transboundary epistemic conservation

community challenged existing governing arrangements. This section centres the duality of cooperation within violent conflict, exploring how the IGCP negotiated the various regional conflicts to maintain collaborative transboundary biodiversity conservation. Next, the chapter takes a closer look at the institutional actors in the epistemic conservation community and exploring their roles in the transboundary frontier, before revealing how processes of institutional bricolage were deployed to reshape existing institutions to build trust and facilitate collaboration between social actors from the three states at the height of regional conflict. The chapter goes on to reveal how knowledge was produced and disseminated by the epistemic community, and how this process secured western science as the dominant conservation paradigm in the frontier. Finally, the chapter examines the impact of frontier dynamics on regional politics and policy, and how the emergence of reterritorialisation began to move the collaboration across geographic and political scales.

4.1.1 A note on the participants

The key interview participants in this first empirical chapter were executives, practitioners and employees from the IGCP coalition and protected area authorities that were active in the GVL from 1991 to 2002. Some of these actors are still active in the GVL in various capacities, while others have moved away and onto other positions. Interviews with most of the contemporaneous indigenous park staff were conducted in person during fieldwork in Rwanda and Uganda, while interviews with those that had moved away were conducted online. While park staff were indigenous Ugandans, Rwandans and Congolese, former IGCP executives and staff from the 1990s ranged in nationality: Dutch, Spanish, Mexican, American, German, and British. Although set for one hour, many interviews with this set of participants tended to overrun, sometime quite considerably, as interviewees anecdotally appeared to enjoy reflecting and divulging stories about their time in the early transboundary collaboration.

4.2 The Greater Virunga Landscape as a frontier

The Virunga forests in the GVL can be described as a frontier (Rasmussen & Lund, 2018), where zones of conservation and production overlap, and where competing claims, narratives and worldviews are expressed through territoriality, institutional norms, and forms of violence (Dancer, 2021, Tsing, 2003). Post-1991, the IGCP unified and extended the role of Western conservation NGOs in the GVL in reshaping frontier dynamics. In introducing new actors and practices to the conservation regime, Western NGOs fundamentally altered how the GVL was understood, valued and governed. In light of the transboundary nature of gorilla conservation, the IGCP reconceptualised the Virunga forests as one cross-border ecosystem, challenging conservation as a concern of separate state authorities.

Mountain gorilla research in the Virunga Massif actually began in 1959 by the Belgian colonial authorities, research that led to organised anti-poaching patrols and educational programmes in Rwanda by the early 1970s. A census in the early 1960s estimated numbers of mountain gorillas at 400-500 in total, living in the Virunga forests and in the Ugandan Bwindi reserve (Schaller, 1963). By the mid-70s, the population in Virunga forests had dropped to between 260 and 290 individuals (Aveling & Harcourt, 1984). Numbers in the Bwindi area is estimated to have similarly decreased throughout the 1960s (Harcourt, 1981), although there was limited attention given to the Ugandan gorilla populations at this time as a result of what was recognised as the chronic human threats in the Rwandan and Zaire/DRC forests (McNeilage et al., 2006). The greatest threat to the survival of the species at this time was reported as: 1) population pressure, causing villagers to pass on to the gorillas transferrable diseases and viruses after entering the forest in order to harvest forest resources; 2) poaching of forest animals for bushmeat; 3) regional conflict, representing a direct threat to the gorillas; 4) a threat to the gorillas' habitat through village encroachment into the park for land cultivation and resource harvesting (Rainer et al., 2003); and 5) a limited trade in gorilla heads and skulls, potentially involving European and American museums (Harcourt & Curry-Lindahl, 1978).

It was the global publicity of the rapid decline and potential extinction of mountain gorillas that precipitated the involvement of the first conservation NGOs in the Virunga forests in 1979, coalescing around the prevention of the mountain gorillas' extinction and protection of their forest habitat (Nielsen & Spenceley, 2011). The *Mountain Gorilla Project*, operating solely in the Rwandan Volcanoes National Park, established collaborative partnerships with the *Rwandan Office of Tourism National Parks* (ORTPN) and the handful of (mostly American and European) scientists and conservationists already operating in the forest. The MGP began by bolstering the existing conservation work of the ORTPN, increasing the capacity of the sole dedicated gorilla research institute in the forest, Dian Fossey's *Karisoke Research Centre*, and 'complimenting the role of the Belgian government' (Harcourt, 1986: 34) in its conservation work (McNeilage, 1996; Harcourt & Curry-Lindahl, 1979). As well as an increase in gorilla research, the MGP had three main objectives. First, to improve park security, the number of park guards were increased by 50% from the 30 in 1978, in addition to improving foot-patrolling equipment and training. Second, habitat conservation and conservation-awareness saw the removal of all livestock from the Volcanoes, and the establishment of conservation programmes and courses for school syllabuses and at the Rwandan National University. Public engagement across Rwandan communities and with farmers living in and around the park, highlighting the plight of the mountain gorilla, increased. Third, a revenue-raising programme was introduced through an ecotourism programme that was based on gorilla-trekking and viewing. Under the revenue-sharing scheme, income raised from tourism would also make the national park and its conservation work financially sustainable, independent of foreign financial assistance (Harcourt, 1986; McNeilage, 1996). Funding for the MGP came from a variety of global sources: the MGP consortium, consisting of several international NGOs – the African Wildlife Foundation (AWF), the Fauna and Flora Preservation Society (FFPS), the People's Trust for Endangered Species (PTES), and the World Wildlife Fund (WWF); the ORTPN; the Belgian government; the National Geographic Society; and the New York Zoological Society (Harcourt, 1986).

In 1984, the Zaire Gorilla Conservation Project (ZGCP) was launched with similar aims, after evidence suggested that the MGP in Rwanda had contributed to the successful protection of and

increase in numbers of gorillas in Rwanda (Aveling & Aveling, 1989). The MGP was also found to have been successful in raising awareness and education around gorilla habitat conservation among the Rwandan population (Harcourt, 1986). The ZGCP was initially funded by the Frankfurt Zoological Society, the Messerli Foundation, and the WWF, and followed similar developments to the MGP in terms of policy and strategy (*ibid*: 70). Like the MGP, the ZGCP worked in conjunction with and supported the conservation work of the Zairian protected area authorities, the Zaire Institute for the Conservation of Nature (IZCN) (Aveling & Aveling, 1989; Harcourt, 1986). The Bwindi Impenetrable Forest and the Mgahinga forests in Uganda, by contrast, were left largely unregulated and undefended throughout this period, one marked by the 1981-1986 civil war, and was managed by the Ugandan Wildlife Authority (UWA) with relatively liberal (and rarely enforced) regulations regarding access rights (Castro & Neilson, 2003).

As a nomadic species, it became clear to conservation actors that the survival of the mountain gorilla would depend on protecting gorilla habitats across Rwanda, Zaire and Uganda (Refisch & Jenson, 2016). Any conservation intervention would involve working with Uganda, Zaire and Rwanda as partner states, in a recognised need ‘for larger scales of management, requiring the joining of parks, but also an extension of conservation beyond park boundaries,...desirable where ecological structures at this scale can be expected to significantly affect species abundance and distribution’ (Martin et al., 2011b: 623). The International Gorilla Conservation Programme (IGCP) was formed and began operating in the contiguous forests in 1991 to that end, eventually working in the Bwindi and Mgahinga national parks in Uganda, together with the Volcanoes National Park in Rwanda and the Mikeno sector of the Virunga National Park in Zaire/DRC. Collectively, these protected areas, home of the diminishing number of mountain gorillas, constituted the informal Transboundary Natural Resource Management (TBNRM) area in 1991 (figure 10).

Figure 10.
Transboundary
gorilla-dwelling
Virunga forests
in the Central
Albertine Rift.
(Bitariho et al.,
2015).



4.2.1 Rwandan civil war

That cooperation between government actors of the three states existed throughout the 1990s was remarkable, given the backdrop of conflict between the three countries and the associated loss of life described as ‘nothing short of staggering’ (Omeje & Hepner, 2013: 2). In October 1990, the ethnic-Tutsi Rwandan Patriotic Front (RPF) army (Rwandan Patriotic Army – RPA), invaded Rwanda from Uganda in the north, with the support of Ugandan president Yoweri Museveni. Their aim was to overthrow the Hutu-dominated Rwandan government of President Habyarimana, which was, in turn, supported by the Zaire government of President Mobutu. By 1991 the RPF had cross the border from Uganda’s Mgahinga National Park to base itself in the Volcanoes National Park in Rwanda, launching raids against the Rwandan army (*FAR - Forces Armées Rwandaises*) in towns and cities that bordered the forests. Consequently, those forests became the site of violent conflict and collaboration in the civil war, as this tumultuous period reflected high-level political and violent conflict, but also, in parallel to the violence, low-level, technical cooperation between Uganda, Rwanda park staff around gorilla conservation at field level (Martin et al, 2011). As a result of the lack of protection of the national parks, poaching and natural resource harvesting by local communities increased. The forests were also degraded by military operations: in 1991, for example, the FAR cut a 50-100m wide path that bordered an important natural trail for migrating animals through the bamboo forest in the park in order to reduce the threat of ambush from the invading RPF (Shambaugh et al., 2001).

By this time the IGCP had already formed informal working relationships with all three partner state governments in conflict, and as a trusted and neutral conservation partner was considered an important technical advisor on gorilla habitat conservation. The IGCP organised and funded regular regional meetings, bringing together local conservation staff from all gorilla-dwelling parks to discuss best practice, harmonising anti-poaching policies and building trust and habits of collaborative working. From these meetings, the IGCP and park staff launched joint patrols that saw staff from neighbouring countries together monitoring forest borders, frequently crossing into each other's territories (IGCP, 2008). Consequently, this trust was leveraged by the IGCP into a position of what a senior AWF executive described as...:

*'...what you might call a "bio-diplomat", the first ever ambassador for an endangered species, which was potentially going to be wiped out by a terrible conflict in a transboundary area.'*³

Through direct communication with conflict actors and their armies, the IGCP worked with all parties to circumnavigate the gorilla habitat during the fighting. During this period, the Karisoke Research Centre, created by Dian Fossey in 1967 to study endangered mountain gorillas, burned down three times and was rebuilt twice. Interestingly, an IGCP executive operating in Rwanda at the time reflected that the RPA rebel group rescued and safely stored the gorilla research records, all on paper and dating back to the 1960s:

*'They saw the value in those records...it was surprising, especially as they couldn't have been sure they were going to win the war and become the new government in Rwanda.'*⁴

When the RPF did become the new Rwandan government, they handed over the files to a newly built Karisoke Research Centre. Dialogue between conflicting parties, facilitated by the IGCP, had become a form of managerialism of the GVL that ran in parallel to the conflict. This managerialism allowed the states to collaborate towards a more efficient resources extraction (in the form of

³ ANON (Interview No. 61): 28/09/2022

⁴ ANON (Interview No. 2): 16/09/2022

gorilla conservation and tourism) without needing to attempt to transform the political status quo of inter-state conflict (Conca & Beevers, 2020).

4.2.2 Genocide and the Congo wars

In April 1994, the Rwandan President Habyarimana was assassinated when the plane carrying him and Burundian president Cyprien Ntaryamirawas, a fellow Hutu, was shot down as it prepared to land in the Rwandan capital, Kigali. The Hutu government blamed the RPF for the assassination, and Rwanda degenerated into a genocide that saw the murder of almost 1 million Tutsi, moderate Hutu and Batwa people in just 100 days, a number that included members of Volcanoes NP staff. The victory of the Tutsi-RPF that ended the genocide on 15th July 1994 saw the RPF assume the role of the new Rwanda government, but conservation capacity had been devastated. According to one Rwandan IGCP employee from that 1994:

*'All the conservation activity in Rwanda was just starting from scratch again (in 1994). Soldiers were still in the mountain regions, on the DRC/Rwanda border. Many of the park staff died in the genocide, so we were really starting from scratch.'*⁵

Fearing reprisals, this regime change caused a mass exodus of Rwandan Hutu towards DRC (Prunier, 2008). Between July and August 1994, around 850,000 Rwandans fled to the Congolese city of Goma and its surroundings, creating sizeable refugee camps close to the Rwandan border (Pech & Lakes, 2017). What remained of the Hutu Volcanoes NP staff also fled, but, such was the friendship and collegiality generated by the collaboration, DRC staff offered shelter to the Rwandan staff:

'Amongst those refugees from Rwanda were the park rangers and park wardens from the Volcanoes National Park in Rwanda. Because they had established those relationships before the genocide through the IGCP, through those regional meetings or joint patrols, the Rwandan wardens and rangers were welcomed as friends by their colleagues on the

⁵ ANON (Interview no. 26): 17/04/2017

other side of the border. They didn't end up in those huge refugee camps, but ended up at the (Virunga) park headquarters in Rumangabo in Zaire (now DRC).⁶

Approximately 40,000 members of the former Hutu regime and army, together with the *Interahamwe* and fellow *génocidaires*, joined the exodus of Hutu refugees fleeing the country (Prunier, 2009, p. 25). They created a new violent rebel group, the Democratic Forces for the Liberation of Rwanda (FDLR) and based itself in the Virunga National Park, using the tropical forest as cover from the regular DRC army, as a source of revenue from resource and mineral extraction, and as a staging point from which to make violent local and cross-border attacks in Rwanda against perceived enemies. Far from the end of the 1994 genocide being the end of conflict in the region, the post-genocide period is defined by Martin et al. (2011) as medium/high conflict at the political level, together with a parallel low/medium and still informal cooperation between the park staff. Two wars in quick succession followed. The first, from 1996-1997, saw the successful Rwandan- and Ugandan-backed overthrow of Zaire President Mobutu Sese Seko. The second conflict, from 1998 – 2003, quickly spiralled into a regional conflict, as Rwanda and Uganda once again pushed for regime change in Zaire (now called the Democratic Republic of Congo).

Ecologically, the conflict, Hutu exodus, and refugee camps resulted in the loss of some 300 km² of land from the Virunga National Park in DRC. As many as 40,000 people entered the park from the refugee camps and surrounding villages each day to harvest forest products and hunt wild animals, including elephant, hippopotamus, and buffalo (McNeely, 2002). The impact of the refugee crisis and activities of the rebel groups on the forest presented a constant danger to the ICCN staff and the animals in the national park: heavy deforestation for illicit charcoal production, firewood and building materials (105km² of park affected by deforestation); depletion of fresh water sources; soil erosion; human encroachment potentially transmitting human-to-ape disease; and problems with the disposal of waste and corpses (Lanjouw, 2003; UNHCR, 1995). These threats to Virunga NP led to a number of direct impacts: loss of protected area staff to

⁶ ANON (Interview No. 26): 17/04/2017

armed conflict – at least 5 park staff were killed by mines and more than 30 killed as a direct consequence of the conflicts; decimation of wildlife numbers due to poaching (including the killing of 18 mountain gorillas from 1995 – 1998); transmission of human diseases to wildlife from people moving through the park; and threats from armed groups to local communities (Lanjouw, 2003; Plumptre & Williamson, 2001). Nor were conservationists able to carry out a regular gorilla census in the Virunga forests after 1989, when the population was thought to number just over 300 gorillas (Gray et al, 2013). However, although 5% of that gorilla population is estimated to have died due to the conflict, a year-2000 estimate based on available evidence found that ‘the minimum population was 359 gorillas, and a best-case scenario correcting for groups that might not have been counted was 395’, which ‘represented a 0.9% or 1.8% annual growth rate’ across the 1990s (Kalpers et al., 2003: 326). Despite the Volcanoes and Mgahinga forests being a site of violent conflict for 4 years, a 2010 census found that gorilla numbers in the Virunga forests had maintained a 1.15% annual growth rate since the previous census in 1989, including throughout this period of conflict (Gray et al., 2010).

Again, such was the fraternity and collaborative working practices built between park staff within the GVL epistemic community, the regional meetings and patrols continued in the Virunga forests throughout the conflicts as best as possible:

‘We would meet when we could and say, “Our countries are at war. So how can we work together to protect the parks?”’⁷

‘(The regional meetings particularly were)...actually a really, really important way to develop that relationship and the trust between them, and it meant that, as a consequence, throughout the entire years of the wars, those relationships were maintained. There were times when we had to play it very low key because of the war, but we continued to have these regional meetings almost uninterrupted during that entire time.’⁸

⁷ ANON (Interview No. 26): 17/04/2017

⁸ ANON (Interview No. 33): 12/04/2017

*'I think that one of the things that was the most noticeable to me was the friendships that developed between the park wardens and the rangers from the three countries. They were very difficult times; during the war, it was often extremely dangerous, and people struggled and suffered, and insecurity in both Rwanda and Congo at times made it incredibly difficult. Having this group of people that they trusted, that they knew would help them during these difficult times, was of great value, and real friendships developed.'*⁹

4.2.3 Features of GVL reterritorialisation

Given the violence between the partner states, the boundaries between Uganda, DRC and Rwanda represented articulations of political difference, manifested in lines on a map that turned borderlands such as these into sensitive areas (Cons, 2016). As we have seen, however, the GVL frontier did not describe the physical border as seen on a map, but instead a social space delineating wild spaces (Rasmussen & Lund, 2018), which stretched deep into Uganda, Rwanda and DRC sovereign territory. This redefinition of the ecosystem was, and would become, a particular challenge to existing ideas of the state, boundaries and sovereignty among partner states (see chapter 6). Furthermore, by operating across borders and across scales, Western conservation NGOs deployed new forms of authority in the forests, authority with global legitimacy. This form of expert-driven authority challenged both customary authority and access regimes, as well as state authority over the forests.

Conservation forces created new frontier spaces in the GVL in resource use, in epistemic conservation knowledge, and in conflict dynamics, with questions over to what extent new forms of economic dependency, authority over property, and political dominance were being established (Barney, 2009). The challenge to existing customary regimes of access shaped this new resource frontier (Wong et al., 2022). The conservation regime saw access to, and the value

⁹ ANON (Interview No. 23): 19/04/2017

of, forest nature, particularly that of mountain gorillas, reshaped and revalued towards market logics. Although the frontier challenged state borders and authority, paradoxically the conservation intervention extended and/or reinforced state power in the protected areas and park-adjacent communities to protect ecotourism developments. The reshaped construction of a resource frontier in the GVL remained the inevitable precursor to the active transformation into a commodity frontier, with the various actors – scientific, state, market forces – reinventing the forests as zones of economic opportunity (Cons & Eilenberg, 2019, Li, 2014). The scientific forces at work in the GVL deployed their global legitimacy to reshape national institutions and challenge local, customary knowledge. Indeed, the rhetoric of conservation ‘frontiers’ can be understood as a legitimising ideological device in Global South conservation interventions (Barney, 2009). New knowledge systems were deployed to support the process of reshaping knowledge and legitimacy, systems that not only challenged but also marginalised the primacy of customary authority and customary resource distribution, promoting Western science as the dominant reference for understanding and, therefore, managing the ecosystem. And the regional meeting and joint patrols provided support structures to the reshaping of the GVL landscape, drawing on processes of bricolage, of constructing something new from a diverse range of available materials and resources at hand (Denzin & Lincoln, 2005), to facilitate the formation of new informal cross-border institutional arrangements in the frontier space. At the same time, the epistemic conservation community performed a role of mediation between global, regional and local forces, shaping the GVL frontier space towards global imaginaries. Through these processes, the IGCP (re)shaped the frontier space of the GVL, developing and deploying strategies that maintained conservation practices in the midst of violent regional conflict.

4.3 Emergence and evolution of the GVL epistemic conservation community

In 2015, senior government officials from three countries, which until just over a decade before had been at the heart of a regional conflict, sat down together in Kinshasa, the capital of the DRC, to sign the *Treaty on the Greater Virunga Transboundary Collaboration on Wildlife Conservation and Tourism Development* (GVTC, 2015a). The 2015 Treaty formalised the increasingly levels of












collaboration between the partner states over conservation, management and tourism development, which itself was facilitated and supported by the epistemic conservation community that emerged in the 1970/80s, and spearheaded in the 1990s by the IGCP. Haas recognised that the human agency at the heart of an epistemic community lies ‘at the interstices between systemic conditions, knowledge, and national actions (Haas, 1992: 2), three dynamics that the IGCP developed in establishing the transboundary conservation programme. The evolution of the transboundary epistemic community in the GVL since 1991 was a result of over a decade of sustained interactions between partner state actors, knowledge exchange, and shared goals among the diverse state and non-state stakeholders. But the process started by building trust and working with the ‘combined sources of expertise’ (IGCP, 2008: 5) of the staff of the individual PAA institutions (ICCN, UWA & ORTPN/RDB) through the 1990s. A then-IGCP executive explained that that involved providing support through external NGO financing equipment and staff, and by inviting outside expertise to deliver training:

‘Every quarter we had a list of themes for the regional meetings that they generated – what they wanted to talk about, and every quarter we would vote on what was going to be the theme for the next meeting, and that way they could determine what they wanted to talk about and what the main issues were, and it was completely driven by them. IGCP would then facilitate it, and make sure that if we needed external experts to come help with the theme, we would pay for and bring those in.’¹⁰

In addition to the IGCP, the burgeoning epistemic conservation community in the GVL included ‘a variety of public and private sector partners...community associations and corporate partners to build capacity’ (IGCP, 2008: 5): the Dian Fossey Gorilla Fund and Gorilla Doctors in the Volcanoes and Virunga forests, and later the Bwindi and Mgahinga Conservation Trust in Uganda, to name several (table 5). The community also included academics and practitioners from local education institutions like Rwanda University and the Institute for Tropical Forest Management at Mbarara University in Uganda. Table 4 explores the key actors of the epistemic conservation community, and their roles in shaping the frontier space in the GVL.

¹⁰ ANON (Interview No. 33): 12/04/2017

Table 5: Conservation organisations present in the GVL 1991 – 2002

	Organisation	Description	Date active in GVL	Role in epistemic conservation community
	International Gorilla Conservation Programme (IGCP)	Coalition NGO formed by WWF, AWF & FFI specifically for the protection of mountain gorillas in the GVL.	1991	Developed GVL transboundary gorilla protection and biodiversity conservation programme, superseding the Mountain Gorilla Programme in Rwanda's Volcanoes National Park and the Zaire Gorilla Conservation Project in Virunga National Park, and eventually working in Uganda's Mgahinga and Bwindi National parks.
	World Wildlife Fund (WWF)	European/US conservation charity, one of the biggest in the world. Founded in 1961.	1979	WWF was a partner in creating the Mountain Gorilla Project (MGP) in 1979, the region's first coordinated gorilla conservation programme. WWF was also a partner in the Zaire Gorilla Conservation Project in 1984.
	African Wildlife Foundation (AWF)	A US conservation NGO, operating solely across Africa. Founded in 1961.	1979	AWF was a partner in creating the Mountain Gorilla Project in Rwanda in 1979.
	Flora & Fauna International (FFI)	A US/UK conservation NGO. Founded in 1901.	1979	As Fauna and Flora Preservation Society (FFPS), it was involved in creating the MGP in 1979.
	Ugandan Wildlife Authority (UWA); Institut Congolais pour la Conservation de la Nature (ICCN); Rwanda Development Board (RDB)	Office <u>Rwandais du Tourisme et des Parcs Nationaux</u> (ORTPN) became the Rwandan Development Board in 2009.		Key partners in transboundary GVL conservation. Supported by IGCP from 1991 in strengthening and harmonising gorilla protection measures, community development initiatives, and ecotourism policies.
	Gorilla Doctors	US-based <u>nonprofit</u> , providing gorilla veterinary services in the GVL.	1985	Established as Volcanoes Veterinary Clinic in Rwanda, working in Volcanoes National Park throughout the 1980s and 1990s, the organisation began operating in Uganda & DRC as Gorilla Doctors in 1997.
	Institute for Tropical Forest Conservation (ITFC)	Biodiversity research institute based in Bwindi forest, south west Uganda. A department of Mbarara University of Science and Technology.	1986	Founded as Impenetrable Forest Conservation Project (IFCP). Became ITFC in 1991 with the establishment of Mgahinga & Bwindi as national parks. IFCP was founded in 1986 with the support of WWF to promote the conservation of mountain gorillas from their habitat in the Ugandan forests. Received funds, training and equipment from IGCP for conservation, gorilla monitoring and census activity throughout the 1990s.
	Dian Fossey Gorilla Fund (split in 2006 to become The Gorilla Organization (UK) & the Dian Fossey Fund International (US))	Dian Fossey Gorilla Fund was a UK-based conservation charity, created in 1976 to support anti-poaching patrols and gorilla research in the Volcanoes forest, Rwanda.	1976	Grew from the Dian Fossey-created organisation The Digit Fund, worked primarily in the Volcanoes National Park. Supports the Karisoke Research Centre, created in 1967 to study mountain gorillas in the Volcanoes forest. Dian Fossey Gorilla Fund continues to operate solely in Volcanoes NP, while the Gorilla Organization operates across the GVL. The two organisations partner with local indigenous organisations in park-adjacent community livelihood and development programmes. IGCP financially supports Dian Fossey Gorilla Fund.
	National University of Rwanda	The main public university in Rwanda, it was merged in 2013 with other public higher education institutions in Rwanda to create the University of Rwanda.	1963	1963, the university has been regularly engaged in biodiversity conservation in the GVL since its creation. Worked with IGCP in the 1990s to offer courses and qualifications in conservation to local conservation practitioners.
	Conservation Through Public Health (CTPH)	US/Ugandan NGO that focusses on preventing potential human-wildlife disease transmission.	2002	Established in 2002 by doctors and practitioners operating in Bwindi/Mgahinga from 1996. In 1996, doctors and practitioners addressed an outbreak of scabies among the gorilla population in Bwindi Impenetrable NP, a disease traced back to a park-adjacent community. Future CTPH staff worked in Ugandan forests (and in forests throughout East Africa) to prevent human to wildlife disease transmission.
	Mountain Gorilla Conservation Fund (MGCF)	US charity that trains vets specialising in treating fauna found in central and east African forests.	1985	Established in 1985 as the Mountain Gorilla Veterinary Project, though the founder, Ruth Keesling, was an associate of Dian Fossey and had worked in the forests since 1983. In 1996, the MGCF founded the Wildlife Animal Resource Management (WARM) in Kampala University, Uganda, to teach local people to become park rangers or wildlife veterinarians, working in all three Virunga forests.
	Bwindi Mgahinga Conservation Trust (BMCT)	Ugandan NGO, created to foster conservation of biodiversity of Mgahinga and Bwindi Impenetrable parks through investments in park-adjacent community development projects.	1994	BMCT works specifically on development and livelihood issues with park-adjacent communities, and in partnership with the IGCP on conservation issues and human/wildlife conflict, and the gorilla census in Mgahinga/Bwindi national parks.
	African Indigenous Minorities Peoples' Organization (AIMPO)	Rwandan organisation, AIMPO advocates for the rights and welfare of Batwa forest people who were violently evicted from Volcanoes forest in the 1980s and 1990s	2001	Established in 2001 as the African Indigenous Minorities Peoples' Organization. Links were made by the IGCP with AIMPO to develop partnerships with Dian Fossey Gorilla Fund on community development programmes to support what the Rwandan government had relabelled 'historically marginalised people'
	Association Rwandaise pour la promotion du Développement Intégré (ARDI)	Rwandan <u>nonprofit</u> , supporting rural Rwandan communities in development issues, livelihood initiatives, and climate change resilience.	1983	Partnered with IGCP and others in Volcano National Park-adjacent rural communities to provide non-forest based livelihood support.
	United Organisation for Batwa Development in Uganda	Ugandan community-based NGO, UOBDU advocates for the rights and welfare of Batwa forest people who were violently evicted from Mgahinga and Bwindi forests when they were reclassified as national parks in 1991.	2000.	UOBDU partnered with IGCP to support non-forest based livelihood initiatives and develop tourism-related activities designed to bring employment and revenue to Batwa communities.

4.3.1 Deploying institutional bricolage to build trust across conflict borders

The IGCP was itself formed only after positive results were established on the potential for joint ecosystem management from conversations with each country's government in Kigali, Kinshasa and Kampala, even though relations between the governments were such that the Rwanda/Uganda border was closed throughout the 1990-1994 civil conflict. An IGCP executive from the early 1990s was involved in those conversations:

*'The feasibility study indicated that there was a willingness from all three governments... to take a regional approach, or a coordinated approach, to managing gorilla habitat along this boundary area. And that directly led to the creation of the IGCP.'*¹¹

According to local conservation practitioners from these formative years, the motivation of the partner states was twofold. The first was economic:

*'I think primarily, the three countries recognised the value in the gorillas as a shared treasury... Rwanda saw the gorillas as part of its economic growth and today sells them to the world as the image of the country'.*¹²

The second was international conservation concerns:

*'The countries had scientists from around the world arriving and telling them that they had mountain gorillas and needed to protect them. There was increasing global attention, and so had to be seen to be doing something to help.'*¹³

These motivations laid the groundwork for transboundary cooperation. However, implementing it during violent interstate conflicts required careful navigation of complex political landscapes. As noted above, the IGCP recognised that an effective conservation intervention would need to extend beyond national borders to cover the entire Virunga forest ecosystem. In doing so, the IGCP began to foster a local conservation community that could operate across multiple levels of governance and diverse stakeholder groups, a strategy crucial for addressing complex issues (Haas, 1992), such as a transboundary gorilla conservation programme.

¹¹ ANON (Interview No. 34): 16/03/2022

¹² ANON (Interview No. 11): 08/07/2022)

¹³ ANON (Interview No, 26): 17/04/2017)

Within the environmental peace perspective, this dynamic reflects functionalist, or neo-functionalist (Haas, 1970) approaches to interstate relations: environmental problems (declining gorilla numbers) tend to cross borders between countries or social groups, and so led to a process of environmental interdependence (Ide, 2014). Consequently, this interdependence was catalysed by the IGCP towards material incentives for states to cooperate along functionalist rather than territorial or ethnic divides (Ali 2007; Harari & Roseman, 2008), or what Dunlop defines as ‘helping to define the interests of the state’ (Dunlop, 2012: 230). Framing epistemic communities as boundaries organised according to social processes (Roth, 2008), it is interesting to note that, as well as receiving support from Kinshasa for the project, an IGCP director remembers that the NGO played a crucial role in including local governors or political chiefs in the Kivu region of DRC that border Virunga NP:

‘The local chiefs were a lot more powerful than the Kinshasa government in eastern Congo (some 2,500km apart)...I don’t think it was really the Kinshasa government that was involved initially because it is so remote from Virunga... It was the local governors and village chiefs that had an interest in the area and who was the main political power in the Congo dynamic.’¹⁴

If the centres of interest in the organisation of epistemic communities are ‘first organised according to the relevance of the categories in question’ (Roth, 2008: 364), then in approaching and including bases of power outside of the Congolese state (the ICCN) the IGCP expanded the model of formal reference points that emerged in the epistemic community to include the informal institutions necessary for successful transboundary governance.

The potential challenge to borders and sovereignty that the transboundary conservation intervention represented in the frontier was built through processes of institutional bricolage by the IGCP and the epistemic community. For example, on a practical level, the IGCP’s early activities largely involved supporting the three PAAs by providing basic equipment (Gray & Rutagamara, 2011). To cement the cooperative structure of the transboundary programme and the creation of the transboundary epistemic conservation community, the IGCP financed regular meetings within the parks, and, borrowing from partner states’ institutional capacity, organised and paid for quarterly and annual regional meetings of

¹⁴ ANON (Interview No. 2): 16/09/2022

staff from the parks and PAA officials, to which the local chiefs were also invited (Refisch & Jenson, 2016). Reflecting the epistemic communities of the technical, low-level political scale that depoliticises transboundary cooperation, and positions itself as a neutral in the region, the IGCP's value was to provide 'opportunities for structured face-to-face communication, in which shared goals were articulated and pursued' (Martin et al., 2011b: 628). During the Rwandan civil war, this position facilitated some contact with the Ugandan park staff. For example, limited cooperation between Uganda and DRC saw an agreement on a set of protective actions for when gorillas crossed the border from the Bwindi Impenetrable Forest in Uganda into the neighbouring (and contiguous) Sarambwe Forest Reserve in DRC. Also, although official high-level collaboration was forbidden between Rwanda and Uganda, a Western former IGCP executive confirms that informal networks between park staff were created:

'Uganda wouldn't talk to Rwanda, but (park staff) were keen to receive information about gorilla movements and issues related to law enforcement, like illegal activities and those kinds of things... You have to imagine people from Uganda and Rwanda, they knew that there was political tension between the countries at the highest level, but on the ground they were very keen to know what was happening on the other side, especially when they knew some gorilla groups were moving and crossing borders. So, it was good to let them know...I think that that started some sort of 3-way communication ...obviously, as I said, between the Congolese and the Rwandans there was direct contact, and with the Ugandans it was indirect through me, but at least things were still working on both sides of the border'.¹⁵

In fact, during the Rwandan civil conflict, a then-senior IGCP described the regional meetings as:

'...probably the most important form of communication. It kept open regular communication channels... and they knew what the challenges were that the others were facing.'¹⁶

But as well as increased communication between the park actors, the regional meetings also served to develop social relationships and networks in the epistemic conservation community that belied the political (and violent) conflict at the political level:

¹⁵ ANON (Interview No. 23): 19/04/2017

¹⁶ ANON (Interview No. 33): 12/04/2017

*'They were very, very rich meetings, where we sat down and planned with everybody about things like coordinated patrols, which were sensitive at the time. We sat together, ate and drank together, and even sometimes danced together at discos! Those meetings built a lot of rapport and friendships between staff across the parks, which made collaboration so much stronger and more efficient. There was a bonding between new friends. At the end of the day, that teamwork that was built is difficult to break.'*¹⁷

The sense of friendship and congeniality at these meeting was a recurring theme in interviews:

*'The regional meetings were always masses of fun, with a lot of...after the meeting, sitting around, having beers together, chatting and laughing, talking about issues together.'*¹⁸

There also grew a mutual understanding and respect between the employees, and with it an exchange of 'best practice' to overcome difficulties in their workplaces. The park actors would 'share their experiences. Because the participants realised that they often encountered the same problems, these regional meetings helped to foster a shared vision and reinforce common goals' (Refisch & Jenson, 2016: 11). Similarly, as a former director of the IGCP commented, the regional meetings became a foundation for building trust and collegiality: 'Friendships formed, and wardens were able to deal with problems that might otherwise have involved the police...the kind of thing that had previously escalated into a major incident. Regional meetings had a deep impact' (Martin et al., 2011b: 628). The relational act of agents deepening a social bond within the epistemic community (Dunlop, 2012) created the informal diplomatic space that also enabled, in 1993/early '94, the launch of joint anti-poaching patrols of Rwandan and Congolese rangers to monitor the borders within the forests (figure 11). Once again, the IGCP recruited local conservation practices to deploy armed state paramilitary actors (park guards) from more than one country to illegally cross a conflict border into the neighbouring country on anti-poaching security patrols, and in the process build social networks across violent borders (Pretty & Ward, 2001).

¹⁷ ANON (Interview No. 47): 19/08/2022

¹⁸ ANON (Interview No. 23): 19/04/2017



Figure 11. Rwandan and Congolese rangers on joint patrol. (BBC, 2009)

Though interstate relations during the first half of the 1990s were tense and marked by violent conflict, relations within the epistemic community made these patrols possible. A former Rwandan park guard remembers these patrols:

*'We shared the tent, we shared the food, we shared everything, and the following day we divided into 4 small groups and decided where to work. The teams, say, of ten people would be made up of 5 Rwandan and 5 Congolese.'*¹⁹

Joint patrols were restarted after the genocide, and by 1996 had even begun to include Ugandan rangers in tri-national patrols (Gray & Rutagamara, 2011). Once security forces raised concerns about armed paramilitaries from neighbouring countries illegally crossing borders, 'coordinated patrols' replaced joint patrols, described by a former Rwandan ranger:

*'Each country was patrolling their side, but there would be regular radio communication between the rangers and staff to coordinate their locations. No ranger crossed the borders, but they would meet at the border and patrol the same areas. This coordination prevented poachers from avoiding capture or arrest by crossing a border and evading one county's rangers.'*²⁰

¹⁹ ANON (Interview No. 40): 06/07/2022

²⁰ ANON (Interview No. 2): 16/09/2022

A previous account similarly reports on the friendship and mutual respect that emerged between park staff: 'There was real brotherhood at these events. I saw Congolese wearing Rwandan shirts and vice versa – they exchanged shirts like football players' (Martin et al., 2012b: 628). The IGCP combined elements from these surrounding institutional sources – state bureaucracies, international conservation norms, local practices – to facilitate the creation and expansion of the transboundary epistemic conservation community in the GVL, practices aligned to institutional bricolage (Cleaver, 2002; Cleaver & de Koning, 2015). The relationships and working practices formed within the community increased the ability of PAA staff to work across international borders and help tackle the problem of forest resource poaching and of the trafficking of gorilla infants (Rainer et al. 2003). Furthermore, by taking place outside of formal state authority, these practices were contributing to new forms of authority within the GVL, within all three state boundaries (Lund, 2006). The regional meetings and joint patrols created neutral spaces for interaction and collaboration, which allowed actors within the epistemic community to navigate political tensions between their states towards greater cross-border institutional collaboration (Martin et al., 2011).

4.3.2 Collaboration through technical conservation

According to contemporaneous reports from conservation actors, there are two reasons why the transboundary epistemic community around mountain gorilla protection developed in this way. The first was that, for the first few years, the community simply kept their actions informal and under a level of secrecy, as recalled by a former IGCP executive:

'...the grassroots – the rangers, the wardens, the people working in the field - we just didn't tell the bosses or managers. We all knew we couldn't talk about it, so we didn't tell Kinshasa or Kigali or Kampala that this is what was happening. Because it wasn't allowed. We knew we weren't allowed to do this'.²¹

²¹ ANON (Interview No. 32): 26/04/2021

Second, the IGCP engendered a relationship of trust with the field staff of each of the PAA, organising itself as an NGO-state model of transboundary cooperation, positioning itself as a neutral facilitator of conservation, communication, and policy between the three states (Martin et al., 2011b):

'The trust built by the IGCP was tremendously important in bringing together the stakeholder countries, because they knew that whenever they were going to meet they would be discussing common conservation issues'.²²

The IGCP also employed dedicated staff in each partner country to liaise with and lobby the park authorities at multiple levels:

'We (the IGCP) had a country coordinator working with the staff and executives in each of the three parks, convincing them, but also limiting the threats to each of them. We also provided tools and finance for the parks achieve their goals, and I think that was the attraction – to show them the conservation benefits of working together.'²³

To the IGCP conservation practitioners, the key to creating a transboundary epistemic community was in rendering the conservation technical, presenting the conservation as a simplified problem/solution narrative (Li, 2007), while positioning itself as a strictly neutral presence and at the same time appealing to the self-interest of each state. A former Ugandan ranger explains:

'We (the partner states) were able to meet because it was the purely technical discussion. And you were able to argue that it was to the benefit of everyone. When you were together at a technical discussion, you could sort of say, "We all have the same objective". Right? At the very local level, at a very person-to-person level, it built those bonds, and it removed the elements of the larger political conflict.'²⁴

On top of fomenting cross-border social networks of trust and cooperation, the regional meetings and joint patrols also facilitated the exchange of knowledge and skills, further drawing together a unified conservation regime among the epistemic conservation community (Haas, 1992). Furthermore, the

²² ANON (Interview No. 26): 17/04/2017

²³ ANON (Interview No. 56): 20/05/2021

²⁴ ANON (Interview No. 53): 24/05/2021

transboundary practices instigated by the IGCP saw conservation actors moving towards a sense of shared identity, over and above that of their nationalities (Conca & Dabelko, 1990). As a Rwandan national and one of the most celebrated architects of the gorilla protection transboundary programme, said:

'I am a part of this region. I have been a victim of politics. But my approach was to go beyond what I was... to work as peers with my colleagues from Congo and Uganda, not being seen as Rwandan. We are doing conservation, not representing whoever I am in an ethnic group, but being seen as conservationists who can bring something positive to the region'.²⁵

Creating a shared identity between conservation actors borrowed from local historical institutions of cooperation and communication between local people and served as a form of informal diplomacy in a conflict-prone region, which in turn facilitated communication channels between park authorities, even when larger state authorities were strained. The IGCP deployed further processes of bricolage provided by greater collaboration in these arenas in generating more efficient use of limited resources in park security and conservation programmes (Gibson et al., 2000). The IGCP facilitated the GVL transboundary epistemic conservation community in two distinct ways: first, by building political, cultural and social capital with the three state governments by remaining resolutely independent, focussed on technical formations of conservation, and a willingness to talk to all actors in the gorilla-dwelling forest, state and non-state (Lanjouw, 2003; Lanjouw et al., 2001). And second, by deploying processes of institutional bricolage to create new institutional arrangements that challenged both state and customary authority in the GVL, conferring a negotiated and contested legitimacy instead on conservation authority and global (Western) practices (Sikor & Lund, 2009).

4.3.3 Rendering conservation technical

The main threats to the mountain gorilla and the forest habitat identified by the IGCP can be largely placed in two broad categories: poverty-related activity; and conflict (Lanjouw et al., 2001). First, high human population density, human encroachment, poaching and deforestation in the Great Lakes region

²⁵ Anon (Interview No. 56): 20/05/2021

are symptomatic of areas with high levels of poverty, low employment opportunities and a trend towards agriculture and subsistence living (Masozera & Alavalapati, 2004; Brockington et al., 2008; Lynch et al., 2017). Secondly, civil unrest, interstate conflict and regional political tensions between the partner states (and surrounding countries) increased instability along the border areas and the presence of refugees, militias and rebel groups in the Virunga forests (Lanjouw, 2003): 'Only by addressing these threats from all sides could the habitat be effectively protected' (Lanjouw et al., 2001: xiii). The IGCP addressed the twin threats with twin responses: first, to increase development funding and employment opportunities for forest-adjacent communities through increasing revenue from regional gorilla tourism; and second, harmonising antipoaching enforcement and tourism policies between PAAs from the partner states, attempting to create more harmonious relations within the parks and increase capacity to negotiate and minimise the surrounding conflict (McNeillage, 1996; Gray & Rutagamara, 2011; Martin et al., 2011; Martin et al., 2011b). The epistemic community in the Virunga transboundary natural resource management intervention thus presented a simplified narrative of problem/solution that Li would critically identify as 'rendering technical' (2007a) and, simultaneously, apolitical – that is, 'representing the unruly array of forces and relations on the forest edge as a bounded arena in which calculated interventions will produce beneficial results' (Li, 2007: 270), while 'reposing political questions as matters of technique' (*ibid*: 265). The community creating the transboundary conservation programme had largely excluded the historical structures of political economic relations from their analysis, glossing over the political economy of poverty in the region that led to deforestation and conflict. The epistemic community had instead formulated a simple set of market-oriented relations in which problem could be rendered as: a) the near-extinction of mountain gorillas, + b) TBNRM and ecotourism = the protection and growth of mountain gorilla numbers and conservation of forest biodiversity, thereby 'extracting from the messiness of the social world...a set of relations that can be formulated as a diagram' (Li, 2007b: 265).

However, this not completely fair. The IGCP insisted on introducing or strengthening programmes to alleviate poverty in park-adjacent communities through revenue-sharing schemes (Refisch & Jenson, 2016). While not addressing the complex reasons for poverty in the Great Lakes region, an undertaking the community was probably in no position to take on, under such revenue-sharing schemes a

percentage of eco-tourism income is redistributed and invested into development programmes for park-adjacent communities (building roads, hospitals, schools etc) or community employment programmes (Tumusiime & Vedeld, 2012; Munanura et al., 2016) in an attempt to alleviate household poverty.

4.4 Epistemic knowledge production, and the reconfiguration of frontier authority

Following Li's 'rendering technical' processes, it is worth exploring the epistemic authority of this global/local epistemic conservation community in the GVL, and its contribution to the coordination of knowledge creation, action and dissemination. As already noted, in the late 1980s mountain gorilla numbers in the Virunga volcanic forests of Rwanda, Uganda and DRC had declined to under 300 individuals due to habitat loss, poaching, disease transmission from humans, and political instability in the region (Weber & Vedder, 2001; Harcourt 1996). This precipitous population decline raised alarms within the broader international primatology and conservation biology epistemic community that the mountain gorilla subspecies could face extinction in the wild within decades. This expert network coalesced around the urgent goal of saving the mountain gorilla population from this fate through increased conservation knowledge and action in the Virunga forests (Harcourt, 1996; Adams, 2004).

Corson (2011) reveals that the state often remains a vehicle *through* which numerous non-state entities sought to expand their control of and authority over land and resources. In the GVL, this is both true and not quite true. The IGCP recruited state authority, in the shape of protected area authority staff, into a wider epistemic conservation community. But, as we saw above, throughout the 1990s the epistemic community operated largely beyond the reach of the state to shape GVL boundaries, rights and authorities, processes associated with the creation of transboundary frontiers: 'Transnationalised spaces (are) governed according to the needs and agendas of transnational networks of actors and institutions' (Igoe & Brockington, 2007: 441). Networks within the epistemic community in the Virunga intervention negotiated resource rights and deployed access mechanisms across international, national, regional and local scales. Henry and Pinch (2000) delineate six key processes through which epistemic communities construct and propagate epistemic knowledge claims towards this negotiation: shared norms and beliefs; interaction and networks; artifacts and infrastructure; certification and competencies;

dissemination to wider groups; and institutional embeddedness. Analysing these socio-cognitive dimensions sheds light on how mountain gorilla conservation knowledge is generated, propagated and circulated in the Virunga TBNRM by transnational expert networks centred on saving the endangered species. The community's sophistication navigating these dimensions explains its impact in driving gorilla conservation progress in the GVL frontier space, despite political upheavals.

First, the epistemic conservation community cohered around shared normative beliefs about the intrinsic value of mountain gorillas and the urgent need for active protection to prevent their extinction (Weber & Vedder, 2001; Adams, 2004). These unifying assumptions guided interactions and facilitated collaboration toward common goals like scientifically monitoring populations, maintaining genetic diversity, community partnerships, increasing gorilla-tourism capacity, and stabilising decline across GVL sites through programs like the IGCP (Gray et al. 2013), and thereby unmaking previous orders of property and customary authority in the GVL. The Ranger Based Monitoring (RBM) program that began in 1997 provided the epistemic community with the basic tools for ecosystem surveillance, monitoring and management: daily patrols, routine gorilla monitoring and collection of data on the habituated gorilla groups, key species of flora and fauna, evidence of poaching and illegal activity, socio-economic monitoring to capture outside pressures on park resources, and the provision of small arms (IGCP, 2008). Processes of mapping, surveillance and boundary-making were central to the territorialisation of the frontier, a range of actions deployed to consolidate the GVL landscape, and, by extension, its resources and, ultimately, its people (Sack, 1986). A former IGCP executive discussed what underpinned the initial programme:

*'Those were the sort of four pillars: protection, ranger-based monitoring, policy and education work, and tourism. And yeah, that's what... the focus was, and making sure people were staying alive and protected, because it was getting increasingly violent and difficult.'*²⁶

And, once again, the crucial aspect here was securing membership of, and a shared normative belief from, the epistemic community from all potential partners, which could challenge the national identity of individual members and any potential support for the larger conflict:

²⁶ ANON (Interview No. 32): 26/04/2021

'We always mixed the technical teams. So, when politics was difficult, you still invite, say, the Congolese, you still make sure that the Congolese rangers get the same training, you make sure the routes are the same, the benefits are the same, the training is the same. We'd organise cross-site visits. So, the Rwandan staff can see their colleagues in the DRC and realise, "Wow, the Congolese are not monsters, they're just normal human beings. They're families, they pay school fees, health insurance." So, internally, you undermine the political conflict happening between their governments'²⁷.

The informal transboundary programme challenged the authority of state government in governance arrangements in the GVL frontier, not to mention notions of borders and boundaries. Similarly, the frontier reconfigured spatial control and resource access, challenging existing customary authority and traditional resource governance structures with moves towards ecotourism (Neumann, 1998; Vandergeest & Peluso, 1995): the implementation of new access regimes saw access to forest resources removed from subsistence communities and commodified into gorilla-trekking permits for the global tourism market.

Second, the community's dense conference, research, and NGO networks allow rapid flows of empirical gorilla data as well as consolidation of epistemic standards, such as standardised monitoring methods in RBM enacted through the IGCP (Robbins et al., 2011). Regular expert interactions, together with the informal regional meetings of park staff, synthesised dispersed field insights through discussion, negotiation and friendship networks, strengthening the authority of the community's collective knowledge claims about gorilla conservation priorities (Dunlop, 2009). Indeed, the stated objectives of the regional meetings were: '1) To create and enhance the awareness of conservation and management issues in all mountain gorilla parks and three countries and exploration of ways and means for potential collaboration between parks in conservation and management activities; 2) To increase awareness of thematic conservation issues raised; 3) To instil collaborative development and implementation of activities; and 4) To encourage joint planning between PAAs and partners of programmes so as to ensure a holistic and regional approach' (Gray & Rutagamara, 2011). At the same time, the deployment of

²⁷ ANON (Interview No. 54): 12/05/2021

Western science as the dominant conservation paradigm became a territorialising force in the GVL frontier. The NGO-state position of the community in the GVL mediated and legitimised Western modes of conservation and scientific knowledge, in effect forging particular (Westernised) visions and versions of the transboundary landscape and conservation norms (Brockington & Scholfield, 2010).

Third, the epistemic community produced material artefacts as a mobilising and coordinating form of action (Roth, 2008). These artefacts - documents, census reports, documentaries, studies, visual models and treaties - encapsulate the community's perspective, and embed abstract ideas into tangible forms to gain traction in policy debates (Radaelli, 1999). For instance, mathematical models predicting extinction risk based on demographic trends objectify complex dynamics into simplified projections that justify urgent calls for interventions, like supplemental feeding (Harcourt, 1996). Such artifacts translated technical details into accessible narratives and discourses to appeal to and enrol wider audiences (Star, 2010). The community produced several key artifacts that embedded their shared normative beliefs about the gorillas' irreplaceability as a conservation priority, not just as a keystone species in the ecosystem but also as a potential tourist attraction. These artifacts strategically portrayed the Virunga mountain gorilla in emotive ways that justified the expansion of protection strategies and catalysed wider policy change. The influential report from the 1978 'mission' by European and American conservationists to survey the condition of the critically endangered mountain gorillas told stories of a local trade in gorilla heads, habitat lost to subsistence agriculture, and dismal protection regimes from the park authorities, all factors that could lead to the gorillas' eventual extinction. And the mission itself was in response to a global outcry after the murder of Digit, a gorilla known to a western TV audience through the work of Dian Fossey, the American zoologist who has been studying gorillas in the Virunga Volcanoes since the 1960s (Harcourt & Curry-Lindahl, 1978). By distilling the situation down to this stark finding, the report authorised the epistemic community's calls for urgent action to halt the downward trends (Adams, 2004). The artifacts made the abstract threat of extinction seem more concrete to policymakers. The community also produced research artifacts about the gorillas' behaviour and genetics to emphasise their singular value as irreplaceable, charismatic flagships for forest conservation.

Fossey's (1983) descriptions of gorillas using distinctive nose prints to identify each other framed them as individuals with personality rather than interchangeable specimens. By 2011, 530 gorillas in the forests had been identified by nose print, together with identified gorilla nesting sites and visiting areas (IGCP, 2008). Analyses of morphology and DNA likewise highlighted the Virunga gorillas' genetic and phenotypic uniqueness, demonstrating their closeness to humans and therefore objectively warranting urgency and priority (Harcourt, 1996). Documentaries like *Gorillas in the Mist* further anthropomorphised gorilla family groups through familiar human behaviours and emotions to portray them as sympathetic subjects to the wider public (Weber & Vedder, 2001). By embedding shared normative assumptions within these expert artifacts, the epistemic community defined the mountain gorilla as an ecological and cultural conservation icon, as charismatic fauna, justifying intensive management. Although, to the indigenous forest-dwelling communities living in the Virunga forests, the gorillas were ever thus. A former forest-dweller described their interactions with the gorillas:

*'Every time we saw them, we were amazed. We would stop to watch how they were organising themselves - the females and young would go first, and the silverback would stay back to watch us... they are so calm and peaceful. They are our relatives.'*²⁸

The community's research and media artifacts framed the situation as an emergency requiring intervention for the sake of both the gorillas' and the wider forest ecosystem (Harcourt 1996; Marijen, 2022). In 2003, the community conducted the first cross-border mountain gorilla census in the Virunga Volcanoes since before the Rwandan civil conflict, which revealed a 17% increase in gorilla population (IGCP, 2008). The artifacts conferred legitimacy for the community's policy recommendations, leading to the TBNRM management to enact the experts' vision for protecting this flagship species (Harcourt, 1996).

Fourth, professional certifications like conservation degrees and recognised competencies like nest-counting ability legitimised claims by underscoring professional roles deploying specialised knowledge (Haas, 1992). The awarding of fellowships to local conservationists in higher education, creating Rwanda's first Conservation Biology Department at the National University of Rwanda, establishing

²⁸ ANON (Interview No. 5): 26/07/2022

training centres dedicated to biodiversity conservation, and establishing the African Leadership University's *School of Wildlife Conservation*, delivering modules in 'Leading the Business of Conservation' (ALU, 2024), were the tools with which the community claimed and underscored the priority of Western-based scientific epistemic knowledge and conservation priorities. Further, unifying protocols also serve to bolster NGO authority in the conservation intervention, like the standardised census techniques introduced by the IGCP (Gray et al., 2013). Such formal and informal credentialing reinforced the community's privileged epistemic status regarding conservation issues.

Fifth, on top of attracting public support, simplifying findings into press releases, advocacy briefs, or fundraising campaigns disseminates the community's gorilla protection campaign to the general public to garner external policy support (Stone 2002). Fundraising campaigns from western conservation NGOs headlined 'The Heartbreaking Tale of...', 'Close relatives at risk', and opportunities to 'Adopt a gorilla' represented an urgent rhetoric, whose primary purpose is to encourage participation among the public. The transmission to these wider groups beyond directly involved experts serves two functions: to garner public support and actions, particularly in the form of financial contributions, and to amplify calls for strengthening conservation (Merry, 2010).

Finally, embedding the epistemic community's knowledge claims within respected institutional frames like the IUCN or specialised academic journals seals scientific legitimacy for the community's expertise (Dunlop, 2009), which helps raise awareness of the conservation regime and intervention, but also contributes to securing Western scientific expertise as a dominant source of conservation decision-making (Haas, 1992). All three parks that make up the Virunga forests are UNESCO World Heritage Sites, and the Greater Virunga Transboundary Collaboration, the formalised institution of the TBNRM created in the 2010s, can operate as an independent voice in negotiations with regional political institutions like the East African Community (EAC), the Economic Community of the Great Lakes Countries (ECGLC), and the International Conference of the Great Lakes Region (ICGLR). Institutions also coordinate conservation efforts across the GVL region and sustain adherence to shared paradigms over time through training new generations of experts (Haas, 1992).

4.5 Impact on politics and policy

The mountain gorilla epistemic community's formation of transboundary programs catalysed significant policy changes across the GVL region during the 1990s (Lanjouw et al., 2003). Through cross-border networking and wielding their scientific authority, community experts advocated for strengthening gorilla protections, despite profound political volatility in East Africa during this period. Their strategic production of data artifacts, unifying discourse, trust-building regimes, and external advocacy sustained commitment to shared conservation agendas across borders amidst political turmoil and regime changes in the DRC, Rwanda and Uganda.

The major achievement of securing the transboundary conservation landscape fulfilled a longstanding goal of the epistemic community in the frontier, creating or reinforcing hard boundaries around a contiguous protected habitat, shielded from human pressures like logging, agriculture, (non-authorised) resource exploitation, and settlements (Harcourt, 1996). Fostering informal institutional ties between staff of park agencies also enabled joint patrolling, intelligence sharing, and endangered species monitoring across borders, overcoming tensions between the post-colonial nations (Gray et al., 2013). The dire warnings issued by the experts about the Virunga gorilla populations' risk of extinction were influential in generating funds from international donors like IUCN, WWF, World Bank and an array of other foreign donors, for greatly enhanced law enforcement and anti-poaching capacity (Kalpers, 2005). External advocacy by the epistemic community's internationally connected experts expanded the ranger forces protecting the parks tenfold from 1991-2001, driving down poacher incursions and helping boost gorilla numbers (IGCP, 2008; Lanjouw et al., 2001; Nielsen & Spenceley, 2011). The community similarly upheld habitat preservation policies in the face of periodic pressures to permit mining, logging, and cattle-grazing inside park boundaries by emphasising unacceptable ecological costs (Gray & Rutagamara, 2011).

The IGCP partnership sustained regional cooperation through the 1990s, despite mounting instability from inter and intra-state conflicts, refugee crises, and government changes in the three countries. For instance, the community attempted, to varying degrees of success, to provide continuity by upholding conservation commitments in DRC's Virunga National Park amidst violent militias penetrating the area

after the Rwandan genocide spilled over the border (Biswas & Tortajada-Quiroz, 1996). One of the reasons for the relative success of these efforts, according to a IGCP executive, is that rebel groups sought international legitimacy, and harming the gorillas might risk that:

*'I think (rebel groups in Virunga NP) didn't want a reputation for killing gorillas. There were global concerns about the gorillas, and I think the rebels were worried that they would get a bad image for themselves, internationally. That's a bad image for the world to see. So, by letting park rangers do their jobs even as they occupied the forest, they were trying to let the world know that everything is fine and the gorillas are healthy!'*²⁹

The community's continuous diplomatic engagement and policy advice backed fledgling institutions through periods of turmoil when state capacities were weak.

As normative (albeit informal) assumptions of inter-dependence were embedded with increasing success, the epistemic community introduced policies that secured government commitment to the transboundary nature of the programme. Consequently, this first step towards institutionalising the tri-state collaboration saw later signings of Memoranda of Understanding (MoU), treaties and ministerial declarations between the governments as collaboration moved up political scales (Conca & Dabelko, 1990). The signing of the 2001 Tripartite Declaration by the PAA heads expressed continuous commitment to the joint management of the ecosystem. 2004's *'On the Collaborative Conservation of the Central Albertine Rift Transfrontier Protected Areas Network'* enlarged the geographical jurisdiction of the collaborative TBNRM beyond the gorilla parks, to bring much of the 12,000 km² GVL ecosystem under single management: in addition to the four gorilla parks, the collaboration now encompassed the Rwenzori Mountains National Park, Semuliki National Park, Queen Elizabeth National Park, and the Kigezi and Kyambura Wildlife Reserves in Uganda, and the Sarambwe Game Reserve in DRC (figure 12).

²⁹ ANON (Interview No. 2): 16/09/2022

FIGURE 1: GEOGRAPHICAL LOCATION OF THE GREATER VIRUNGA LANDSCAPE

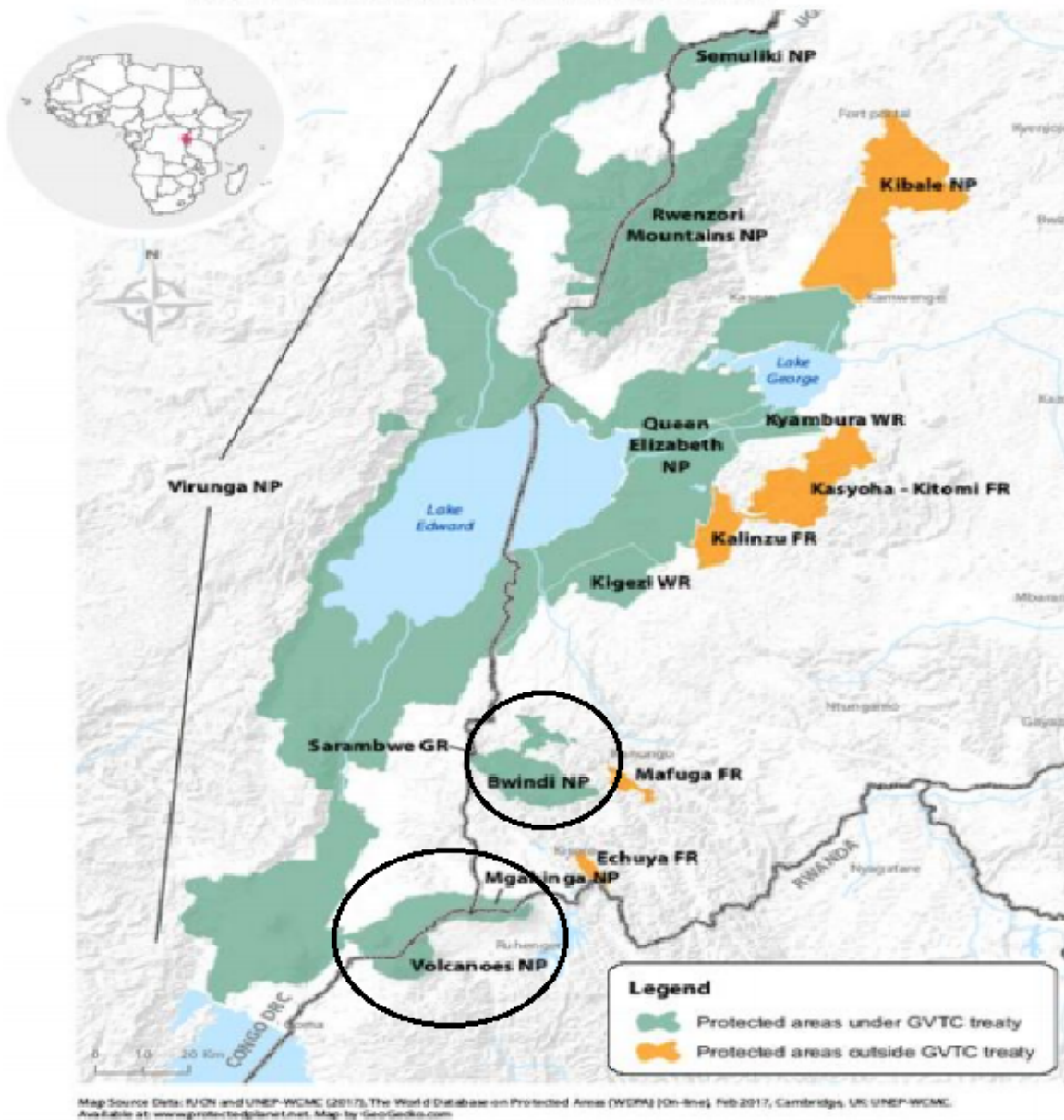


Figure 12. The Greater Virunga Transboundary Protected Area in the Central Albertine Rift. (Bitariho et al., 2015).

Building on the trust gained in creating a ‘positive sum interaction’ (Ide, 2020: 2) through successful trilateral conservation throughout the 1990s - measured by gorilla protection and growth of gorilla numbers (Kalpers et al., 2003) - the community had the political and social capital to expand the collaboration’s jurisdiction in the 2004 MoU: ‘When the actual benefits of environmental cooperation

exceed its expected outcomes, parties can decide to expand transboundary exchanges to other sectors to maximise peace dividends' (Dresse et al., 2018: 112). In 2005, reflecting steady progress in regional security (Dagne, 2011), the respective government ministers overseeing the PPAs from the three actor states signed the *Tripartite Declaration on the Transboundary Natural Resources Management of the Transfrontier Protected Area Network of the Central Albertine Rift* (DRC, Rwanda & Uganda, 2005), also known as the 2005 Goma Declaration (see appendix 5). This Declaration in turn recognised the need for formal collaboration at state level. It was signed in Goma, the capital city of North Kivu Province, the region of eastern DRC that had seen so much of the violence and conflict between the three countries over the preceding decade. The signing of the 2004 MoU, the 2005 Goma Declaration, and the adoption in 2006 of the *Ten Year Strategic Plan* (TSP) recognised the seven national parks and three nature reserves in the Central Albertine Rift as a single transboundary ecosystem, with institutional responsibility shared among the three countries, committing executive support for its collaborative management. Intense diplomacy by the epistemic conservation community reinforced norms of interdependence across the GVL, framing transboundary gorilla groups as a unifying financial and symbolic ('a common treasury') requiring harmonised and coordinated management across borders. These unifying discourses upheld conservation priorities through political transitions. Despite the extraordinary volatility and interstate violence in the GVL throughout the 1990s and early 2000s, the epistemic conservation community's ability to mobilise international allies, knowledge and financial resources, and deploy moral authority and legitimacy enabled it to advance policy changes. Furthermore, the community's transboundary initiatives fostered regional social connections beyond government, and consequently remained relatively resilient to disruption, political regime change, and the violent frequent cross-border incursions by rebel forces even into the late 2010s.

4.6 Conclusion

This chapter explored the challenge that the epistemic conservation community posed to existing authority, social norms and resource access arrangements in the GVL frontier during the 1990s, discussing how global and scientific authority both challenged and extended state authority in complex ways. The chapter also revealed how those processes were successfully 'rendered technical' (Li, 2007a), by subjecting the forests to being bounded, mapped, characterised, and documented by the Western

NGOs, in partnership with protected area staff. It illustrated the epistemic community's relative success in leveraging social capital into informal solutions for cooperation between the partner states: Uganda, Rwanda and Zaire/DRC. The chapter also showed how the epistemic community managed to operate in an unstable region where both conflict and collaboration occurred in parallel, revealing how actions taken by social actors to further conservation goals in difficult circumstances led to the dissolution of forest borders and the forming of new, shared identities based on ecosystem relations. Specifically, the analysis showed how, through institutional bricolage, the epistemic community built new, informal transboundary conservation institutions from previous arrangements, framing inter-state gorilla conservation as furthering both environmental protection and economic opportunities.

The epistemic conservation community operating in the GVL frontier faced immense challenges during the 1990s, as civil wars and genocide erupted across the DRC, Rwanda and Uganda, resulting in massive instability, refugee crises, infrastructure damage and breakdowns in governance. Yet it was remarkably successful in influencing the conflict-torn partner states in increasing protections of the endangered gorillas, despite political and violent upheavals, and the analysis of which helps answer the research question set in the introduction: *'How did 'apolitical' epistemic communities reshape the Greater Virunga Landscape frontier, influence state authority, and transform resource access in a conflict arena?'* The epistemic conservation community achieved those aims through astute political manoeuvring, framing conservation as an 'apolitical' scientific necessity transcending divisions. The community successfully 'persuaded decision-makers and successfully navigated the machinery of government by insinuating themselves into bureaucratic positions' (Dunlop, 2012: 230) to the extent that their actions, strategy and establishment of consensual knowledge later informed government policy choices.

Frontier dynamics in the GVL saw existing social orders – property systems, political authority and jurisdictions, rights, and social contracts – challenged in the face of an emergency conservation discourse of the critically-endangered mountain gorilla. The ability of the epistemic community to create social arrangements, and assume the authority to draw new transboundary boundaries, almost created a state *across* three states, boundaries shaped by the forest ecosystem. Paradoxically, in redefining authority over property in the frontier, the epistemic community also extended or reinforced state authority over

the protected areas and into communities living in park-adjacent communities, thereby deciding who can define and enforce rules over forest resource legitimacy. To achieve these frontier dynamics, the epistemic community adopted processes of institutional bricolage in articulating conservation norms and reshaping local institutional arrangements into a transboundary landscape, drawing both on the legitimacy of global conservation science, and in partnership with the authority of local park regimes. And in place of challenged social relations, frontier dynamics saw the creation of new resource frontiers, revaluing the mountain gorilla and its mountain habitat as a tourist commodity, reshaping access rights away from customary and traditional arrangements.

The GVL intervention also contributes to further research on how a transboundary epistemic community in an arena of violent conflict can still operate successfully and create policies and political opportunities to further their goals by: i) building coalitions through trust; ii) being a/political; iii) creating artefacts of influence and persuasion; and iv) building and deploying global moral authority. Trilateral cooperation and mutual trust engendered within the epistemic conservation community in the GVL reflected the technical characteristics of potential cooperation that can be derived from ecological interdependency located in regimes of environmental peacebuilding: for example, collaboration over monitoring, data systems, patrols etc. Crucially, while adopting an 'apolitical' stance of neutrality, in practice the community made bold political moves to influence state policies amidst the conflict. For example, although the origins of the conflict were rooted in complex tensions between ethnic groups, nation states and political parties, the experts in the epistemic community framed transboundary gorilla protection as a unifying public good, benefiting all sides (Lanjouw et al., 2003). This aligned with goals of post-genocide reconciliation and continuity in upholding conservation responsibilities as a means for new post-conflict regimes, to demonstrate legitimate governance to citizens and international donors (Nielsen & Spenceley, 2011). Furthermore, by partnering with formal state PAA institutions while operating informal transboundary initiatives outside of state jurisdiction, the community operated both in cooperation with, and in contravention of, state authority. The production of scientific data produced by these joint patrols by tracking gorilla population trends was a key strategy in upholding regional commitments amidst the conflict. Censuses, surveys and habitat assessments provided continuity and hope when the future was uncertain, and developed a process of strategic, long-term planning that

contributed to increased harmonisation of forest management approaches. The community's ties to global NGOs and discourse networks magnified calls for strengthened environmental safeguards (Stone, 2002). So, as opposed to taking an 'apolitical' stance, the IGCP, backed by global conservation legitimacy and capacity, made significant behind-the-scenes political manoeuvres to build a broader epistemic community of global and local conservationists, and strategically influenced partner states into increasing mountain gorilla protections during this turbulent period of regional conflict in the 1990s and early 2000s, the institutional legacy of which we explore in chapter 5.

Chapter 5 A Design for Life: Reterritorialising authority and access through institutional bricolage in the Greater Virunga Landscape

‘By the time the countries signed the (collaboration) Treaty, they had gone through this marriage for 25 years. It is an engagement...between three countries that share national parks and forests, and a common heritage’.³⁰

- *Anonymous, Rwandan conservation executive*

5.1 Prologue

Chapter 4 revealed how an international epistemic conservation community created an informal transboundary conservation frontier in the Greater Virunga Landscape (GVL) in efforts to protect the endangered mountain gorillas throughout the 1990s and into the early 2000s. This chapter moves on to examine the GVL collaboration from 2002 onwards, when attempts were made to design a formal conservation institution that would both secure the life of transboundary engagement, and consequently the lives of the Virunga mountain gorillas and their biodiverse habitat, into the future. Since 1991, the conservation epistemic community in the GVL had leveraged their social capital and knowledge to broker informal relationships and agreements between the countries to facilitate transboundary gorilla conservation in the midst of violent regional conflict. The 2002 Pretoria Accord and Luanda Agreement, however, brought an end to hostilities between the DRC, Rwanda, and Uganda, and created opportunities for more formal institutional collaboration between partner states. So, for this chapter, institutional bricolage is deployed to reveal processes through which the institutional actors of the GVL creatively reconfigured arrangements of authority and access by combining informal norms, relationships and resources in contextually adaptive, and increasingly formal, ways (Clever, 2012).

³⁰ ANON (Interview No. 12): 28/05/2021

5.1.1 Introduction

In this light, this chapter addresses the second research question: *'How has the escalation and formalisation of collaboration in biodiversity conservation across scale shaped, and been shaped by, authority, access, and political cooperation in the Greater Virunga Landscape?'* To answer, the chapter examines the Greater Virunga Transboundary Collaboration (GVTC), the interstate governmental institution created to deliver transboundary conservation interventions, within a critical institutionalist framework. The chapter answer the question in two ways: first, by extending an institutional bricolage analysis to interrogate the societal and systemic changes at scales beyond those of community or livelihoods, examining overlapping authority regimes involved in ecosystem conservation; and second, by revealing how critical elements of environmental peacebuilding are drawn into the bricolage process of formalising the transboundary collaboration.

By adopting the lens of institutional bricolage, the chapter uncovers how formal and informal institutions overlap and interact with the transboundary conservation intervention to legitimise the formal GTVC institution. The chapter contributes to institutional bricolage in three specific ways. First, the analysis illuminates the complex and dynamic processes immersed in formalising the collaboration arrangements across borders. Second, the chapter explores how a wide variety of social actors, from political elites to park rangers, engage in processes of institutional bricolage to shape and legitimise emerging formal institutions. And third, the chapter reveals the epistemic tensions that threatens the collaboration.

After a note about the interview participants who contributed to this analysis, the chapter opens by jumping forward 20 years to the present day in the GVL, describing a breakdown in transboundary collaboration between the partner states, and with it a corresponding degradation in biodiversity throughout the Virunga forests. The remainder of the chapter explores the historic role of institutional and social actors in processes that eventuate this current situation. The analysis begins with an framing of the GVL a reterritorialised landscape, revealing how the escalation of transboundary collaboration up the political scales led to the construction of a new formal governance arrangement, the Greater Virunga Transboundary Collaboration (GVTC). Next, the chapter dissects the GVTC, investigating the features of institutional bricolage that were catalysed to create the interstate institution, and revealing how the

blend of informal collaboration and formal political processes reconfigured authority relations in the GVL. Staying on that theme, the chapter next explores how the transboundary collaboration has shaped and reshaped authority and transformed access to natural resources in the reterritorialised landscape, analysing the antagonism at the heart of the GVTC that had, and continues to have, major impacts on conservation outcomes. Finally, the chapter demonstrates the potential and the challenges of the entanglement of transboundary conservation with discourses of environmental peacebuilding, revealing the fragility of diplomatic opportunities when confronted by national interests of sovereignty.

5.1.2 A note on the participants

As in the previous chapter, the analysis follows a broad narrative of conservation in the GVL as told by the people who work or worked in the GVL, particularly centring the voices of indigenous Rwandan, Congolese and Ugandan conservation practitioners. The key participants can be split into three distinct categories, each with their own strengths and weaknesses in their contribution to knowledge about the GVTC. The first set of interviewees were the political appointees who sit on the various boards within the GVTC structure itself. On one hand, they provided unique insights into the inner workings of and political relationships in the GVTC, but on the other were by nature less open and giving on suggested tensions that were weakening the institution. The second set of interviewees are conservation practitioners at park level, those broadly on the receiving end of institutional policy, but maintain limited influence on GVTC decisions. These interviewees support the GVTC and its aims, but benefit from maintaining a distance that allows a certain (anonymous) freedom to record observations and/or criticisms about the way that the GVTC operates. The third set could also broadly be described as conservation practitioners in the GVL, but are independent or adjacent to GVTC or protected area authority policy jurisdiction, whether from non-IGCP NGO employees working in the forests, regional analysts with expert knowledge of the Great Lakes region, or members of local communities living on park borders and deemed 'conservation partners' by the GVL conservation regime.

5.2 Coordinated patrols, and their discontent

Mount Bisoke stands at 3,711 metres (12,175 ft) above sea level and is one of eight volcanoes on the Virunga Massif that straddles the colonial borders of Rwanda, DR Congo and Uganda on the Albertine Rift, the western branch of the East African Rift in the Great Lakes Region. Mt. Bisoke also stands with one foot in Rwanda and the other in DRC and, like the entire chain of volcanoes, is covered with dense tropical rainforest. The volcanoes cover an area of just 375km², but despite its relatively small size is home to communities of mountain gorillas and golden monkeys, herds of forest elephants, buffalo, several species of antelope and birds, and bush pigs, as well as various species of the trees, plants and shrubs, many of which are unique to the Albertine rift valley (Plumptre, 2007). A day's hiking up the south east face of Mt Bisoke is one of the more popular tourist products offered by Rwanda's Volcanoes National Park, because as well as the possibility of seeing some of the park's exotic fauna on the climb, it also offers panoramic views of the greater Virunga mountain range, of the beautiful volcanic cones of Gahinga, Sabyinyo, Muhavura, Karisimbi, Nyiragongo, Mubabura, Nyamuragira and Mikenno. The volcano region is itself a tiny fraction of the 12,000km² Greater Virunga Landscape within the conservation jurisdiction of the GVTC (fig. 15).

At the summit of Mt Bisoke sits a crater lake (figure 13), 400 metres in diameter and 100 metres deep. In the summer of 2022, four rangers from Volcanoes National Park, a routine security patrol looking for evidence of poaching, stood on the volcano's summit and pointed to the



Figure 13. Mt Bisoke crater lake. (Image author's own)

lake's opposite bank, a kilometre away, which lay in the DRC, discussing the fate of the coordinated patrols once carried out by ranger teams from those partner countries. In the first decade after 1991, when park staff of the three national parks began cooperating over management of the Virunga ecosystem, country borders were sites of regular contact and collaboration between park rangers in a region-wide effort to combat cross-border crime, particularly illicit resource trade and exotic wildlife

smuggling. These joint and coordinated patrols were also effective in combatting poachers, who would otherwise, according to a former poacher from Rwanda, often operate cross-border to evade capture:

*'The reason why we would cross to Congo to hunt is because we feared the soldiers and rangers and volunteers in Rwanda. We would go to the Congo for a few days, and then return quickly home to Rwanda'*³¹

Typical poaching activities involved laying snares and traps to catch meat for consumption and sale (usually antelope and duiker), collecting rainwater, cutting bamboo for construction,³² occasionally capturing elephants for their ivory, and harvesting honey and forest plants for medicinal purposes. Forest land would also be cleared for illicit cattle grazing.³³ The traps and snares poachers used were often lethal to the mountain gorilla, even if the poachers claim to never directly hunt gorillas directly (*'They are our relatives.'*³⁴) The relationships cultivated between the partner state rangers and park staff increased the ability of protected area authorities to work across international borders during the various violent conflicts, and help tackle the problem of poaching and trafficking of gorilla infants and other exotic wildlife (Rainer et al., 2003).

However, these coordinated patrols, critical to the effective management of the GVL eco-system, have not taken place since 2016.³⁵ Over the last decade a paradoxical combination of circumstances has led to the slow halt of transboundary collaboration, the coordinated patrols and the regular full regional meetings of park staff. As a result, one senior ranger reported in our 2022 interview that Mgahinga park authorities have recorded a stark increase in illicit cross-border wildlife and resource smuggling:

'We have found sales of parrots that have been trafficked from Congo through Virunga and through Mgahinga (national parks). And we are finding increasing amounts of ivory and timber being moved through the parks too. So, you can see the haemorrhage of resources from one country to another. At the landscape level we lose, we all lose. If we are losing massive amounts of trees in Congo from the forests, then that will have a degrading effect on so much, not least

³¹ ANON (Interview No. 05): 26/07/2022

³² ANON (Interview with former poachers. Interview No. 30): 24/06/2022

³³ ANON (Interview with former poachers. Interview No. 05): 26/07/2022

³⁴ ANON (Interview with former poachers. Interview No. 04): 10/07/2022

³⁵ ANON (Interview No. 40): 06/07/2022

carbon sequestration levels. If the collaboration isn't working very well, we lose the ability to deal effectively with these cross-border crimes.³⁶

So, the collaboration in the Virunga transboundary ecosystem between Uganda, DRC and Rwanda, for over two decades responsible for successfully protecting and growing the number of mountain gorillas and conserving their forest habitat, appears to be breaking down, to the degradation of the ecosystem it was built to protect.

5.3 Reterritorialisation in the Greater Virunga Landscape

The process of reterritorialisation describes the reshaping of authority in a landscape that leads to a new order, or orders, replacing the old, or when new centres of power emerge to sit alongside the old ones (Duran, 2015). Processes of reterritorialisation, of the creation of new social and spatial arrangements, emerge from the frontier to fill the void created by the dissolution of previous authority (Deleuze and Guattari, 1987). If frontier dynamics dissolve existing social orders, governance arrangements, property systems and political jurisdictions, then reterritorialisation is, in turn, the creation of systems of resource control in the frontier space (Rasmussen & Lund, 2018).

The GVL collaboration transcends traditional state boundaries, and these features are central to understanding the role of interstate institutions in the reterritorialisation of the GVL frontier, as a reconfiguration of territorial control and governance in the region. Transboundary conservation areas serve to create both new spatial units and new conservation territories wedded to ecosystems rather than state borders, and within them new arrangements of authority and resource control – the challenge to sovereign state authority, for example. This is a key ecological imperative in the reterritorialised transboundary regime, reflecting a shift of focus in conservation, from species to ecosystem. This shift attempts to account for critical migration patterns, resource flows, and the potential for greater ecosystem services in a region (DeFries, 2001; Simberloff, 1998; Woolmer et al., 2008). This is certainly true of the GVL, home to migratory species like lions, hippopotamus, chimpanzees, baboons, monkeys,

³⁶ ANON (Interview No. 20): 25/08/2022

leopards, okapi, golden cats, crown eagles, buffaloes, lesser flamingos, vultures, Rwenzori sitatunga antelopes, elephants, and, of course, the mountain gorilla (UNESCO, 2023). The GVL transboundary conservation regime can also be placed within international conservation norms and recent enthusiasm for transfrontier conservation among the global conservation community, a discourse that describes peace parks (one formal iteration of transboundary conservation) as being the 'global solution' (Büscher, 2013). The economic incentive of transfrontier conservation is central to the 'global solution' imaginations; tourism, or ecotourism, is generally posited as the holy grail, seen as capable of tying together all the various goals of transboundary conservation (Carrier & MacLeod, 2005). Although the mountain gorilla was recognised for its intrinsic value within the Western conservation discourse, extracting revenue from gorilla tourism was (and remains) the conservation method (Lanjouw et al., 2001). The emerging economic rational in the GVL connected the state to the market in new ways, as global capitalism commodified the gorillas and the surrounding flora and fauna and strategically coupled the territorialized space with extraterritorial economic networks (Berdegúe et al., 2015). The political-economic institutions emerging from the trans-frontier space attempted to increase stability and ecological protection in the forests by harmonising gorilla protection and tourism policies, bolstering park security, and compensating park-adjacent communities for the loss of access to the forests. These measures would lay foundations for an increase in tourism numbers and revenue for partner states (Reifisch & Jenson, 2016), and, eventually perhaps, according to a senior indigenous conservation executive, create the regional stability to introduce transboundary tourism products. Of course, a history of violent and political conflict has shaped this region more than many other issues, which has at time both facilitated and hindered the process of reterritorialising the GVL; while the epistemic community in the 1990s were forced to navigate high levels of conflict disrupted conservation efforts in parts of the Virunga forests, the conflict also encouraged new and creative forms of cross-border governance between park staff, processes which were often characterised as potential for peacebuilding between warring nations (Martin et al., 2011).

In the GVL, then, reterritorialisation is a dynamic where governing institutions built and maintained new spatial authority where nature is transformed into resources and commodities (Rasmussen & Lund, 2018) and the ecosystem was formally adopted as a singular governed territory. Furthermore, it

excluded certain people and included others within geographic boundaries, controlling access to the natural resources within those boundaries (Menzies, 1992). The development of this new geography of formal resource authority in the reterritorialised GVL involved four key operations:

- first, establishing the Greater Virunga Transboundary Collaboration (GVTC) as the central administrative institution to manage the new transboundary territory
- second, with the new authority, a legal system of rights and laws for property and access;
- third, establishing boundaries and mapping the territory within the boundary;
- and fourth, enhancing means of security to enforce these new institutional regimes (Rasmussen & Lund, 2018).

In relation to the first of these, the 2005 Goma Declaration (appendix 5) laid out the legal and operational foundations of the GVTC, the interstate administrative body, managed and financed by the partner states and invested with the diplomatic authority to deliver transboundary conservation interventions (figure 14). According to executive actors from the GVTC and from GVTC funding bodies, the GVTC serves three roles; first, as a space for political executives from the partner states to meet in a neutral space to discuss transboundary conservation governance of the GVL: second, as an advisory and consultative body that collect expert testimony to produce authoritative conservation reports and planning documents; and third, as a diplomatic and legal body that can lobby state governments and represent the GVL to related bodies (funding, corporate, conferences, etc.) towards successful conservation goals.^{37 38 39}

Second, while the associated laws to regulate conservation property and behavior in the individual protected areas are still decided by the individual state government, obligations, laws and directives for transboundary conservation are drawn up in the GVTC Treaty (figure 19). The GVTC Treaty was agreed on by the relevant ministers in 2015, but is yet to be ratified by any of the partner state parliaments. Third, processes of mapping, surveillance and boundary-making were central to the reterritorialisation

³⁷ ANON (Interview No. 57): 15/06/2022

³⁸ ANON (Interview No. 12): 08/05/2021

³⁹ ANON (Interview No. 18): 3/06/2022

of the frontier. Delineating boundaries and borders, mapping migration trails and corridors, establishing gorilla monitoring and tracking programmes, producing scientific artifacts for global consumption, and delivering park-adjacent community education programmes, all reflect a range of actions deployed to consolidate and control the GVL space and, by extension, its resources and, ultimately, the behaviour of local people (Sack, 1986).

And finally, this consolidation is supported by a park security apparatus bolstered by Western NGOs (Lanjouw et al., 2001). Park guards in the reterritorialised space are trained in paramilitary tactics by state police or army forces^{40 41} (Verweijen & Marijnen, 2018), in a prominent feature of militarised conservation (Duffy, 2014), or what Lundstrum calls ‘green militarisation’ (2014). The justification of the militarisation of park staff in the GVL territory reflects the potential dangers or obstacles potentially encountered in the dense forests: armed groups engaged in illicit smuggling or resource use; violent political paramilitary armies; violent threats to tourist groups; and attacks by large animals. On the other hand, the increasing militarisation of the forests had led to concerns about human rights abuses committed by park guards (Massé, 2020), particularly in the Virunga forest in the DCR (Verweijen et al., 2022). The expansion and bolstering of security forces in the reterritorialised GVL also reflects the assertion of the power of the state and military over a distant area that it had potentially struggled previously to control, in a process Woods (2019) referred to as ‘green territoriality’. Ground for this green territorialisation was laid by the epistemic conservation community in the 1990s and early 21st Century. Fostering cooperation in the GVL frontier in the form of joint patrols, joint border security operations, shared intelligence, regular regional meetings, and attempts to harmonise security protocols, represented a form of territorialisation, where enforcement authority transcended national boundaries in the GVL’s complex and political reterritorialised landscape.

⁴⁰ ANON (Interview No. 45): 28/06/2022

⁴¹ ANON (Interview No. 41): 14/08/2022

5.4 The Greater Virunga Transboundary Collaboration: A product of institutional bricolage



Figure 14. GVTC logo (GVTC, 2017a).

Studies of traditional institutionalism focuses on formal rules and organisational structures of and within *states* (Lowndes & Roberts, 2013). Central to this perspective is the view that ‘the role of institutions is to provide information and assurance about the behaviour of others, to offer incentives to behave in the collective good, and to monitor and sanction opportunistic behaviour’ (Cleaver, 2012: 8). The critical institutionalist framework introduced here, however, examines the *regional* relations of Uganda, DRC and Rwanda around GVL conservation as both shapers of, and being shaped by, societal bricolage processes with distributed agency, in both how the formal collaboration emerged from informal collaboration, and in exposing potential structural limitations in formalised operating capacity.

Institutional bricolage conceptualises institutions in complex socio-ecological systems as formed, adapted and transformed from previous arrangements, that ‘mechanisms of resource management and collective action are borrow or constructed from existing institutions, styles of thinking, and sanctioned social relations’ (Cleaver, 2002: 16). Carstensen & Röper (2021) identify how institutional bricolage – ‘here understood as a reorganisation of ideational and institutional elements from the existing institutional logic’ (1289) - can work as a strategy with which to organise or build support to develop institutions. This strategy sees social actors apply their knowledge, power and agency to build and reshape social relations, collective (transboundary) action, and resource management in new arrangements that suits needs and circumstances. The GVTC represented/s the formalisation of the informal transboundary collaboration fomented by the epistemic conservation community throughout the 1990s. Conservation actors in the epistemic community recognised the necessity of centring partner

state governments in the collaboration in order to develop sustainable ecosystem-wide resource management, a sentiment summed up by a Western former IGCP executive:

'I think having the three governments, given their history in the region, own their own conservation transboundary programmes was very important...it was definitely the right thing to exist'⁴².

As a result, from 2002 onwards, through inter-ministerial agreements, statements and treaties (see below), the process began of reconfiguring the existing institutional logic of the informal transboundary collaboration, formalising the collaboration's problem-solving capacity, distributional attractiveness, and normative acceptability (Hall, 2016).

Indeed, as new institutions of resource governance are adapted and shaped from the 'institutional debris' (Carstensen, 2015) of previous arrangements, institutional bricolage also emphasises the role and importance of placing historical and cultural contexts at the centre of debates over shaping institutional outcomes (Cleaver, 2012), rendering historical trajectories important because they shape contemporary institutions (Cleaver & de Koning, 2015). The GVTC emerged from a long and complex history of colonial legacies, post-independence nation-building, and regional conflict in the Great Lakes region. The long history of conservation interventions and the creation of protected areas in the Virunga forests, themselves a legacy of European colonialism, was a formative dynamic in the emergence of interstate collaboration. Post-independence, the region's history of conflict and violence shaped and continues to shape inter-state relations, a history that the GVTC, in its institutional bricolage, continues to negotiate. This lingering mutual suspicion is expressed in a number of ways, not least in the hesitancy of all partner states to fully commit the Virunga forests to an official Transboundary Protected Area (TBPA) or transfrontier Conservation Area (TFCA), or even to ratify the GVTC Treaty, with its emphasis on sovereignty over resources above collaboration (see below).

The region's rich biodiversity led to global attention and a flow of resources, and with it efforts to assert global (Western) conservation measures over traditional and customary authority of resource

⁴² ANON (Interview No. 34): 16/03/2022

governance (Sandbrook, 2008). As institutional bricolage, what the GVTC represents is a new management arrangement of protected areas that has selectively drawn upon these historical and cultural elements, shaped by global (Western) conservation norms and practices, that were themselves created by global (colonial) conservation norms and practices, with limited assistance from the governments of the post-independence partner states.

5.4.1 Blending the formal and the informal

As an interstate conservation institution, supposedly financed and managed by ministers and political appointees from Uganda, Rwanda and DRC, the GVTC is a novel institution of complex, multiscale arrangement. It is characterised by a set of diverse social actors, multiple institutional frameworks and competing areas of authority, fashioned from a regional history of both conflict and cooperation. As a product of institutional bricolage, the GVTC was crafted by a blending of informal and formal institutional elements. Formal agreements, treaties, committees, and governmental structures (see table 4) were combined with a set of informal socially-embedded institutions for collective action that had developed throughout the 1990s in the shape of those regional meetings and joint and coordinated patrols. Indeed, crucial institutions of cooperation between the partner states had long been embedded in everyday relations, networks of reciprocity and negotiations of cultural norms between park staff from the partner states (Martin et al., 2011). These institutions provided the supporting structures for the later political elements. In 2005, for example, reflecting steady progress in regional security (Dagne, 2011), the respective government ministers overseeing the protected area authorities (PAAs) from the three partner states signed the *Tripartite Declaration on the Transboundary Natural Resources Management of the Transfrontier Protected Area Network of the Central Albertine Rift* (DRC, Rwanda & Uganda, 2005). This declaration recognised the need for formal collaboration at state level, and started the GVTC initiative. The statement of intent was signed in Goma, the city in the east of the DRC that had been the focal point of so much of the violence and conflict between the three countries over the preceding decade. The signing of the MoU in 2004, the 2005 Goma Declaration, and the adoption in 2006 of a *Ten Year Strategic Plan* (TSP), recognised the seven national parks and three nature reserves in the Central Albertine Rift as a single transboundary ecosystem, with responsibility shared among the three countries, and secured executive support for its collaborative management. The 2008 *Rubavu Ministerial*

Declaration for the Greater Virunga Transboundary Collaboration established the secretariat for the burgeoning GVTC (based in Kigali, Rwanda), while the 2015 *Ministerial Treaty on the Greater Virunga Transboundary Collaboration on Wildlife Conservation and Tourism Development (GVTCT)* created a GVTC Treaty, to be ratified by partner states, that would mandate those governments legal and financial obligations to the collaboration. Finally, in 2018, the GVTC held its first Council of Ministers meeting, replacing the IGCP as the authority for transboundary conservation in the GVL, completing a 27-year trajectory of social and political embeddedness of collaboration up the political scales, from informal and low-level to formal and high-level (table 6).

Table 6: Formal milestones of the GVL gorilla conservation intervention

Year	Milestone	Explanation	Signatories
1979	<i>Mountain Gorilla Project</i> (Rwanda) established	To improve park security; initiate an awareness campaign of gorillas in Rwanda; establish gorilla-tourism programme.	Rwandan Office for Tourism and National Parks (ORTPN - Rwandan protected area authority); - African Wildlife Foundation (AWF); - Worldwide Fund for Nature (WWF); - Fauna Preservation Society (NGOs)
1984	<i>Zaire Gorilla Conservation Project</i> established	Improve protection of mountain gorilla; update information on eastern lowland gorillas; establish gorilla-tourism programme.	Zaire Institute for the Conservation of Nature (IZCN - Zaire protected area authority); - WWF (NGO); - International Union for Conservation of Nature (IUCN) - Frankfurt Zoological Society (international conservation institute)
1991	International Gorilla Conservation Project (IGCP) launched	Created first regional transboundary conservation programme, strengthening protection of mountain gorillas; gorilla monitoring; development and livelihood opportunities in surrounding communities; advocate and strengthen conservation policy.	IGCP working informally with: - AWF; - WWF; - Flora & Fauna Preservation Society (FFI) (NGOs) - ORTPN; - IZCN;

			- Ugandan Wildlife Authority (UWA - Ugandan protected area authority)
2004	<i>Trilateral Memorandum of Understanding (MoU) between the three Protected Areas Authorities on the Collaborative Conservation of the Central Albertine Rift Transboundary Protected Area Network.</i>	Formalised tri-national collaboration between 3 partner states; expanded jurisdiction of collaboration beyond gorilla parks, recognised the network of parks in the GVL as a unique transboundary ecosystem.	Head of partner state protected area authority: - ORTPN; - IZCN; - UWA
2005	<i>Goma Declaration</i>	Ministerial tripartite declaration, setting out objectives for the Greater Virunga Transboundary Collaboration (GVTC), and establishing a Secretariat to implement it.	Relevant government ministers of: - Rwanda; - DRC; - Uganda
2006	<i>Trilateral MoU between the three Protected Areas Authorities on the Collaborative Monitoring of and Sharing Revenues from Transfrontier Gorilla Groups</i>	Established a gorilla-tourism revenue-sharing negotiation by PAAs, requiring the gorilla host country to split tourism revenues 50-50 with the newly habituating country, when gorilla communities cross-national borders.	Head of partner state protected area authority: - ORTPN; - IZCN; - UWA
2006	<i>Ten-Year Transboundary Strategic Plan for the Central Albertine Rift Network Protected Area Network</i>	Authorised the establishment of a GVTC permanent secretariat, inter-ministerial board and technical committees; introduced transboundary planning and governance to the GVL.	Head of partner state protected area authority: - ORTPN; - IZCN; - UWA
2008	<i>Rubavu Ministerial Declaration for the Greater Virunga Transboundary Collaboration</i>	Establishment of GVTC Executive Secretariat, based in Kigali, Rwanda Secretariat to coordinate the implementation of the 10-Year Transboundary Strategic Plan	Relevant government ministers of - Rwanda; - DRC; - Uganda

2015	<i>Treaty on the Greater Virunga Transboundary Collaboration on Wildlife Conservation and Tourism Development.</i>	This Treaty harmonised the legal and policy frameworks on wildlife-related crimes.	Relevant government ministers of - Rwanda; - DRC; - Uganda
2018	First GVTC Council of Ministers meeting held in Kigali, Rwanda.	Council made up of ministers of partner-states. Superseded IGCP as authorised body for transboundary conservation.	Relevant government ministers of - Rwanda; - DRC; - Uganda

5.4.2 Institutional gains

It is the blended arrangement of these formal and informal institutions (Cleaver & de Koning, 2018), the formal treaties and agreements with the informal collaboration throughout the 1990s (discussed in chapter 4), that gave the GVTC, as an adapted institution, its legitimacy. However, this blended arrangement was sequential rather than parallel, and replaced by a continual flux of informal and formal institutions that led to the creation of the GVTC. For example, ministerial agreements could only exist because of the previous informal transboundary institution, while the operation of the formal agreements relied on the previously established informal structures of operational cooperation. With this regional legitimacy came the ability to facilitate the exercise of authority over transboundary conservation interventions.

For example, the 2005 Goma Declaration, as it became known, set out objectives for the new body, and created the role of Executive Secretariat as the *de facto* operations manager, based in Kigali, Rwanda. The creation of the GVTC represented attempts by the epistemic conservation community to institutionalise these blended arrangements in order to create a single administrative institution that would eventually see the collaboration managed and financed by the partner states, independent of foreign assistance. Crucial to originally securing political support for the project was the promise from the IGCP to the partner governments of increasing significant levels of revenue and local employment opportunities from gorilla tourism (McNeilage, 1996). For instance, according to a 2022 report from the Rwandan Development Board, gorilla trekking permits raised \$113 million in revenue for the

government, while creating employment for over 39,000 local people (RDB, 2022). Ugandan gorilla trekking permits raised more than \$25 million for Uganda in 2019, a 40% increase over the previous year (Ndlovu et al., 2021). A 2013 WWF report valued the Virunga National Park at approximately \$48.9 million per year for the Congolese government, but in a more stable situation, with an end to conflict and sufficient resources to protect the ecosystem, the park could increase in value to more than US\$ 1.1 billion per year (WWF, 2013).

With large revenues at stake, 'any resource use competition can be constructed in ways that engender either cooperative solutions or unproductive solutions in forms of conflict, including violence' (Conca & Beevers, 2020: 59). From the beginning of the collaboration there was potential for this form of conflict between the states whenever a family of gorillas crossed state boundaries, denying tourism revenue from one country and increasing it for another. So when, in 2006, the sole habituated gorilla group from Mgahinga National Park in Uganda crossed the border to the Volcanoes National Park in Rwanda, which might potentially have caused tension in the collaboration, the PAA authorities diffused the potential tension by negotiating a new MoU: '*On the collaborative monitoring of and sharing revenues from transfrontier tourism gorilla groups*'. This MoU requires the new host country to split tracking permit revenues generated by that gorilla community 50/50 with the original habituating country (Hammill et al., 2008: 46). 'Economic rules of the game' (Martin et al., 2011b: 630) were configured to institutionalise mutuality across partner countries. This MoU was seen as a sizeable step towards transboundary management of natural as well as financial resources, which recognised 'the shared roles in resource stewardship and economic interdependence of the three countries' (Hammill et al., 2008: 50). That same year the *Transfrontier Strategic Partnership* (TSP) saw a further expansion of its authority regime, as transboundary planning and governance expanded to include the 7 national parks in the GVL (Refisch & Jenson, 2016), along with an expansion of its conservation mandate to include fishing rights, water use, farming and land use, and forest employment in GVL ecosystem. To govern these new territorial arrangements, the same plan also created tristate, multi-institutional management boards within the GVTC to address political oversight (Inter-Ministerial Board), implementation (PAAs and Transboundary Core Secretariat), technical issues (Regional Technical Committees on research, tourism,

community conservation and enterprise, and security and law enforcement), and community stakeholders (figure 15).

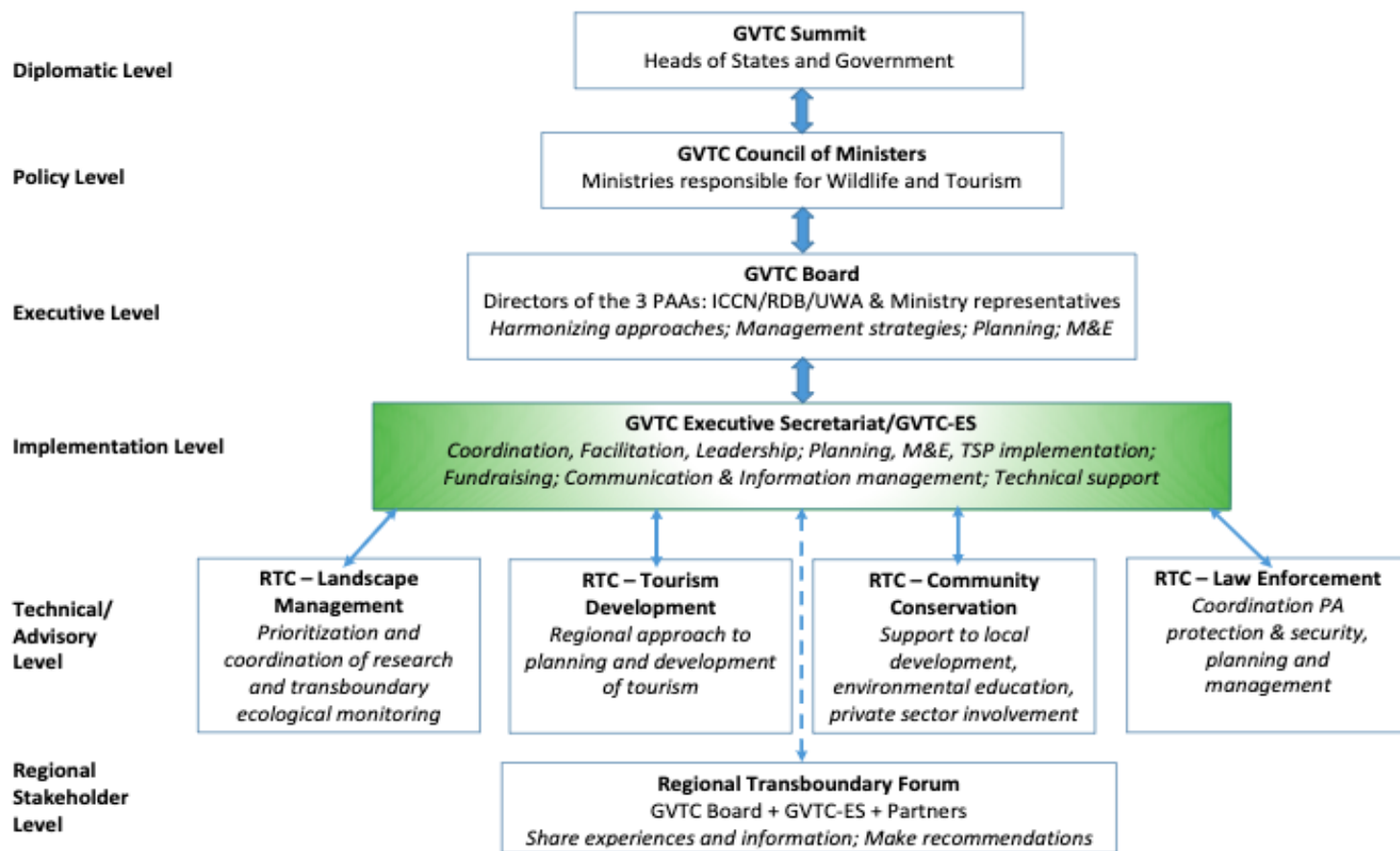


Figure 15. GVTC governance structure (Hsiao 2018: 197)

5.4.3 Key actors shaping the GVTC

Institutional bricolage can also help highlight the role of individual and collective agency in the institutional formation of the GVTC. Understanding people's actions and the ways these affect institutions, for instance, goes further than simply tracking practices and social relations. There is a need to explore aspects that may not be visible in public decision-making, but will shape the role of social actors in creatively combining elements of institutional contexts to form the GVTC, aspects including world views, forms of legitimacy and authority, situated loyalties, and external pressures (Cleaver & de Koning, 2015). Although many of the policies and approaches emerge from organisations (states, funding bodies, etc), they are enacted by individual people who are both largely professional but also social actors, whose individual efforts shape policies by individual effort to adapt, collaborate, and construct (or, indeed, destroy!).

Western conservation actors at the IGCP played, and continues to play, a pivotal role as key bricoleurs – actors who engaged in the process of bricolage - in the GVL and in the creation of the GVTC. Throughout the 1990s the IGCP was able to leverage its position of neutrality and technical, scientific expertise to gain the trust of ministers and political executives of partner state governments and draw in park staff to shape the transboundary scientific conservation community. In the 21st Century, the IGCP leveraged its long-standing presence, interstate relationships, and conservation authority in the region, combining the scientific experience, global legitimacy of conservation norms, practical experience and diplomatic skills drawn from the frontier institutional dynamics, to facilitate moves towards escalating collaboration up political and across geographic scales (Gray et al., 2010). Ministers, diplomats, and staff from international donor bodies can also be identified as bricoleurs in shaping the GVTC. Bilateral aid agencies and multilateral institutions (via the IGCP coalition NGOs), and Western states (Dutch, Swedish and Norwegian), provided financial support for the collaboration and, in doing so, influenced the design of the GVTC through funding conditions like good governance and transparency reports and caps on *per diems*, and policy

priorities like, for instance, a desire by Western funders to catalyse the collaboration for greater peacebuilding opportunities.^{43 44 45}

State actors can be separated into two groups: park staff in the epistemic conservation community, and political appointees. First, state agencies, in the shape of park staff from the protected area authorities, navigated the tensions between the partner states at the high of regional conflict throughout the 1990s to facilitate habits of trust and cooperation. In the 21st Century, with the formalisation of collaboration, these same park staff then have had to navigate between habits of transboundary cooperation and the re-assertion of state sovereignty over resources (Buüscher & Schoon, 2009; Martin et al., 2011b). This negotiation of state authority in the collaboration takes place at the *Technical/Advisory Level* within the GVTC management structure, usually represented by senior park staff and chief wardens. The state agencies of the park staff (ORPTN/RDB, UWA, ICCN) drew on the pre-2005 bilateral agreements signed by PAA management, regional cooperation frameworks, and their domestic conservation policies to creatively shape and develop the GVTC governance structure that attempts to recognise state authority and, at the same, time, facilitate cross-border conservation arrangements (Sandwith et al., 2001).

Second, the three civil service positions at the *Implementation Level* - the GVTC Executive Secretary, Deputy Executive Secretary, and Chief Finance Officer - are political positions appointed by ministers at the *Policy Level*, and constitutionally-bound to represent each of the partner states (GVTC, 2015a). The GVTC Board sits at the *Executive Level*, consisting of state-appointed PAA political executives and conservation elites. Appointees at this level provide advice to ministers at the *Policy Level*, as well as overseeing the operation of plans ratified by ministers. The GVTC Board is constitutionally-mandated to meet twice annually. The embodiment of the escalation of conservation collaboration up the political scales is reflected at the *Policy Level*, where relevant partner state ministers meet every two years to discuss transboundary issues across the GVL. And finally, the diplomatic authority of the GVTC

⁴³ ANON (Interview no. 18): 03/06/2022

⁴⁴ ANON (Interview no. 63): 01/07/2021

⁴⁵ ANON (Interview no. 7): 06/04/2022

institution is secured at the head of the governance structure, the *Diplomatic Level*, which draws in the head of each partner state governments at a diplomatic summit.

5.4.4 Reconfiguring authority and transforming access in the reterritorialised landscape

Even during the frontier processes of the 1990s, traditional claims of resource access bound in customary authority were challenged by the extension of state authority into the parks and park-adjacent communities. As the protected areas were gazetted, indigenous communities that had lived in the Virunga forest for generations were summarily removed, with little in the way of compensation (Plumptre et al., 2004). Similarly, access to forest resources was wholly removed for local communities, who had previously relied on the forest for fresh water, building materials, meat and medicinal plants. State security services, in the shape of armed park guards, patrolled the perimeters of the parks and border areas with powers to detain suspects, while public educational programmes saw members of local communities suspected of poaching in the parks reported by neighbours to park authorities. Their access claims became recognised as illegitimate by the dominant politico-legal authority, in this case the state governments. However, in the Virunga National Park in DRC, communities and insurgent rebel groups continue to challenge state authority, accessing forest resources through various points along the protected areas vast perimeter (Verweijen & Marijnen, 2018).

At the same time, however, the revenue-sharing scheme might contribute to supporting the legitimacy of state authority in resource access dynamics in local political negotiations. This programme invests a percentage of tourism revenue back into projects in park-adjacent communities in Rwanda and Uganda, and to a lesser extent in DRC, to compensate for loss of access and/or crop damage and to provide alternatives to park resources. The revenue-sharing scheme has enabled new developmental channels for livelihood and development activities related to conservation. Local people in Rwanda have adapted to create new institutional arrangements in the shape of worker cooperatives and credit unions that support new small businesses, skills training, commerce, and employment opportunities (bee-keeping, tailoring, community conservation etc.). Conservation revenue is distributed in

Ugandan park-adjacent communities via newly-formed community councils, but are similarly invested in livelihood opportunities. This revenue provides potential new avenues for local people to assert claims and access benefits from forest resources indirectly (Sandbrook, 2010), seeking accommodation with the new conservation institutions, rather than engage in contestation and opposition.

The GVTC itself has created a situation of competing legitimacies in a conservation arrangement of institutional pluralism, and consequently the reterritorialised GVL has become a site of contested authority (Sikor & Lund, 2009). While states and state agencies remain the key actor in resource property and access, their authority is now embedded in a complex and multilayered authority landscape. Competing claims of authority from states, the GVTC as an interstate institution, conservation NGOs, and local and indigenous communities has led to an amorphous social, political and institutional landscape (Douglas, 1986). This extension and reinforcement of state authority reflects its complexity and the reconfiguration of authority in the reterritorialised GVL. On one hand, conservation extends and legitimises state authority and control over remote border regions and resources, shaping the state into a key politico-legal institution attempting to establish, consolidate and expand its authority (Verdery, 1999). On the other hand, state authority over resources are continuously challenged by membership of the GVTC, where the GVTC Treaty obliges states to cede a degree of decision-making over its territorial property to the collaborative body on transboundary issues (GVTC, 2015a). Membership of the transboundary authority potentially weakens state sovereignty over border areas (Lundstrum, 2013), where 'old boundaries that long defined landscapes, races, habits, governance systems, and sovereignties were thought to be dissoluble' (Büscher, 2013: 39). So, in the reterritorialised GVL, states find their authority over resource property challenged by transboundary institutional processes, and at the same time benefit from enhanced opportunities to assert and extend territorial control, with greater access to international conservation funding and the potential to enhance national authority in global conservation discourse (Duffy, 2006).

As explained above, the ability of states to achieve the extension and consolidation of authority has largely been facilitated by global conservation NGOs, specifically by the International Gorilla Conservation Programme (IGCP) (Duffy, 2006). At the same time, the

IGCP is caught in its own tensions of authority in the GVL. Over a few decades of activity in the region, gaining legitimacy by positioning itself as a neutral technical conservation service, the IGCP has gained increased authority to shape policy decisions and influence management strategies (Haas, 1992; Brockington & Scholfield, 2010). Pre-IGCP conservation authorities bought global scientific legitimacy to gorilla conservation, shaping policy decisions to challenge customary and traditional arrangements of resource access, which led to the eviction of indigenous forest people and removal of access to forest resources for local communities (Brockington & Igoe, 2006; Neumann, 2004). Staff and executives from the IGCP were also key social actors in escalating authority for transboundary conservation up political scales, laying the foundations of the GVTC, creating the a form of authority in the reterritorialised transboundary space (Büscher, 2013). In 2018, the IGCP ceded all authority for transboundary conservation to the GVTC, and repositioned itself once again as a technical institution to deliver the transboundary conservation policies of the Council of Ministers and GVTC Board. At the same time, institutional members of the IGCP coalition are building an expanded conservation NGO coalition to deliver GVTC policies across the rest of the GVTC landscape outside of the gorilla-dwelling Virunga forests.⁴⁶ However, the authority of conservation NGOs remains contingent on state approval, a contingency that has itself created complex dynamics of cooperation and tension (Brockington & Scholfield 2010), and none more so that in the Virunga National Park, DRC. In 2008, the Congolese national parks authority, the Institut Congolais pour la Conservation de la Nature (ICCN), entered into a public-private partnership (PPP) with the Virunga Foundation, a London-based conservation NGO. This transfer saw management of Virunga NP and its staff transferred to the NGO, while authority for the biodiversity conservation across the park was transferred to Virunga Foundation executives. This transfer has produced a number of tensions between the GVTC and Virunga Foundation, according to a number of indigenous conservation executives and actors:

‘It’s certainly a weakness in the collaboration... The Virunga Alliance raises a lot more money than the GVTC, and the institution doesn’t seem to be serious about the collaboration.’⁴⁷

⁴⁶ ANON (Interview No. 25): 01/08/2022

⁴⁷ ANON (Interview No. 11): 08/07/2022

'I kind of see the GVTC as being outside, not integrated into decision-making structure... So I think, for the Virunga Alliance, it sees (the GVTC) as slightly irrelevant'.⁴⁸

(See chapter 6 for more on the tension between the GVTC and Virunga Alliance).

How this disputed authority over Virunga National Park will impact the new IGCP-led, landscape-wide conservation NGO coalition remains to be seen. Furthermore, due to an apparent degradation of social relations between Virunga staff and park-adjacent communities (Verweijen, 2022), it is arguable that Virunga Foundation's authority suffers from a lack of legitimacy in the eyes of local Congolese communities, which may explain why the park is regularly entered to gain access to forest resources (Ribot & Peluso, 2003).

5.5 The GVTC Treaty, and its tensions

As hinted at above, the GVTC has struggled, and struggles, to maintain legitimacy as a transboundary institution, in a recursive conflict with states over authority and property access. Sikor and Lund (2009) note that 'When authority and power relations are contested, politico-legal institutions tend to compete for authority' (10). The GVTC is invested with the legal authority to coordinate and deliver transboundary conservation in the reterritorialised GVL, and with it a legitimacy located in the GVTC Treaty, a treaty signed by all three partner states (figure 16). Also included in the Treaty are obligations of funding commitments by Rwanda, Uganda and DRC, and a commitment to regular meetings and actions. However, the GVTC has yet to receive full and regular operational funding, and trilateral meetings within the GVTC institutional framework are irregular, at best. At this point, it is worth focusing on the GVTC Treaty, and how its framing has led to the GVTC's perceived lack of authority and legitimacy in the eyes of partner states.

On September 22nd, 2015, senior government officials from the three partner states, sat down together in Kinshasa, the capital of the DRC, to sign the *Treaty on the Greater Virunga Transboundary Collaboration on Wildlife Conservation and Tourism Development* (GVTCT).

⁴⁸ ANON (Interview No. 34): 16/03/2022

Kanimba Francois, the Rwanda Minister of Commerce, and Elvis Mutiri Wa Bashara, the Congolese Minister of Tourism, were joined by the Ugandan Commissioner of Wildlife, Mr. James Lutalo, who oversaw the signing before returning to Kampala with the Treaty for signing by Dr. Maria Mutagamba, the Ugandan Minister for Tourism, Wildlife and Antiquities.



Figure 16. Front & back pages of the GVTC Treaty. (GVTC Treaty, 2015)

The Treaty proclaimed a declaration of cooperation and intent over the conservation of an area of extraordinary biodiversity between three states that had survived a civil conflict, a genocide, and two regional wars in just a quarter of a century. But, by contrast, a senior conservation official said of the destiny of collaboration between partner states:

'By the time the countries signed the Treaty, they had gone through this marriage for 25 years. It is an engagement...between three countries that share national parks and forests, and a common heritage'.⁴⁹

The Treaty affirmed high-level political and diplomatic support for the expanding collaboration, as a GVTC executive confirmed:

⁴⁹ ANON (Interview No. 12): 28/05/2021

‘Our relationship is dictated by the Treaty... Anyone who strays away from that is reminded that it’s a Treaty between governments.’⁵⁰

And at the same time, and most importantly, the GVTCT moved the project beyond protected area authority (PAA) collaboration, handing over to relevant ministers the transboundary governing role that the IGCP had filled since 1991, in an attempt to secure a high degree of state-level ownership of the collaboration (Refisch & Jenson, 2016: 833):

‘The (GVTC) Council shall consist of Ministers responsible for Wildlife and Tourism of each Partner State and such other Ministers of the Partner States as each Partner State may determine.’

(GVTCT, 2015a)

However, political conflict around the cross-border movement of mountain gorillas brings into focus the tension at the heart of GVL collaboration and, by extension, the GVTC, a tension located within the terms and obligations of the partner states laid out in the Treaty. As a political elite and current GVTC Board member surmised:

‘Out of 10, I would give (the GVTC institution) a 5... the GVTC hasn’t done what it is supposed to be doing at 100%.’⁵¹

But the GVTC is an interstate institution comprising Uganda, Rwanda and DRC governments. If the GVTC is operating at 50%, it is because of the actions (or inactions) of the politicians involved, either design or by chance. It would appear to be the case that, as Saleem and Pincus (2018) point out, ‘most countries comply most of the time with most of the treaties they sign, this leaves lots of room for half-hearted compliance or inadvertent noncompliance’ (312). Conservation practitioners in the GVL outside of government structures appear to agree that the GVTCT is being adhered to in a limited way, though some see the Treaty itself as a weakness:

⁵⁰ ANON (Interview No. 60): 06/08/2022

⁵¹ ANON (Interview No. 51): 26/08/2022

*'What I think is very difficult, the Treaty does not make the case for transboundary collaboration strong or clear enough to encourage the heads of state to sign it. The composition of the Treaty is a weakness...and needs to be updated.'*⁵²

The Treaty is built around two seemingly incompatible statements, summed up in Article 3:

'The purpose of this Treaty is to establish a Transboundary Collaborative Framework for programs and activities on wildlife conservation and tourism development within the Greater Virunga Landscape among the Partner States without ceding or affecting the respective sovereign rights over the protected areas under their respective territorial jurisdiction (emphasis my own).

(GVTC, 2015a: 4-5)

Similarly, Chapter One, Article One describes the GVL ecosystem as a singular Transboundary Protected Area (*ibid* p.3), and the pre-amble 'Recognises the necessity to conserve the transboundary wildlife protected areas through collaborative management' (*ibid*: 1). Four paragraphs later in the pre-amble, the Treaty 'Affirms that Partner States have sovereign rights over their natural resources and the corresponding responsibility to conserve and sustainably utilise these resources' (*ibid*: 2). One reason for this tension at the heart of the GVTCT might be what a former IGCP Director, a practitioner operating in the GVL during the 1990s, described as an attempt not to deter any of the partner states from the nascent informal collaboration with talk of surrendering territory to a formal transboundary initiative:

*'Let's not push people out of their comfort zone, to look at this image or this vision of a singular transboundary protected area or even a Peace Park, because they may immediately balk, because they're often at war with each other, and say, no way, and then stop the coordination happening. So, we (IGCP) will be quiet about that end goal.'*⁵³

⁵² ANON (Interview No. 40): 06/07/2022

⁵³ ANON (Interview No. 32): 26/04/2021

5.5.1 Geopolitical tensions and GVTC authority

The question of why the partner states appear reticent to fully commit political and financial capital to the GVTC project, despite political actors at all levels agreeing on its importance and potential, remains (see Voices from Below in appendix 6), narratives from conservation actors on the potential for the GVTC). A senior Rwandan civil servant suggested that one reason might be because the countries don't have the income to spare:

*'The countries are not contributing enough money to the GVTC simply because they don't have the money. The contributions that partner countries are making are not adequate to facilitate implementation of the strategic plan, so that diminishes the effectiveness of the GVTC.'*⁵⁴

This is confirmed by a number of political actors involved in the Collaboration, not least an official from the Dutch Embassy, a key funder of the GVTC:

*'I think there's a genuine problem with cash flow. There really is. There is no tourism in Congo (because of the fighting in and around the Virunga National Park). I mean... that's going to take a while before anybody goes in there.'*⁵⁵

Additionally, a Ugandan conservation practitioner diagnosed the funding issue as one of overlapping institutions:

*'The GVTC suffers from a double hit when it comes to funding. The partner states have their own PPAs specifically for conservation, and they also have their own foreign affairs ministries dealing with diplomatic issues: these are two roles that the GVTC is attempting to perform. So the states aren't going to prioritise funding for the GVTC when it is sort of replicating roles and institutions that already exist.'*⁵⁶

According to most practitioners, politicians and civil servants interviewed, however, the main reason for the lack of progress in the GVTC from the partner states is simply because of the lasting legacy of historic and recent conflict, summed up by a Congolese government official:

⁵⁴ ANON (Interview No. 51): 26/08/2022

⁵⁵ ANON (Interview No. 18): 03/06/2022

⁵⁶ ANON (Interview No. 42): 12/08/2022

*'In the last 5 years, the relationship between the 3 countries has been complicated and troublesome.'*⁵⁷

Cooperation around gorilla conservation in the GVL, particularly cooperation between Rwanda and DRC, all but ended when the M23 rebel group invaded and occupied not just the Mikenko sector of park, but also Rumangabo, the town where the Virunga National Park HQ is based, in 2022. Most of the non-essential ICCN staff left, and consequently, the gorilla-dwelling sections of Virunga National Park has remained mostly off-limits to ICCN rangers and staff. This lack of cooperation, however, appears to be a direct consequence of Congolese government policy. According to a Congolese IGCP actor:

*'The (DRC) national government is accusing Rwanda of invading Congo via M23. The situation is a lot more complicated. The DRC government position is very rigid... The staff of Virunga National Park are ICCN employees, they are government staff. So, the DRC government has stopped government employees... from engaging.'*⁵⁸

It seems clear to Congolese actors, at executive level and at park level, that the current violence by M23 is orchestrated by the Rwandan government. A senior Congolese political executive was unequivocal:

*'Yes, we have no doubt. We have testimony and physical proof.'*⁵⁹

A senior Congolese conservation actor operating in Virunga National Park was similarly conclusive:

*'Perhaps I wasn't clear enough. To be so, it is obvious that Rwanda supports M23. Rwanda and M23 can deny it all they like, but we are here working in the region, and we see everything that is going on. We know that Rwanda is supporting M23.'*⁶⁰

Indeed, in August 2022, a report by United Nations Security Council found that Rwanda had been launching military interventions inside eastern Congolese territory since at least November 2021, providing 'troop reinforcements' for specific M23 operations, 'in particular

⁵⁷ ANON (Interview No. 49): 06/10/2022

⁵⁸ ANON (Interview No. 70): 19/10/2022

⁵⁹ ANON (Interview No. 49): 06/10/2022

⁶⁰ ANON (Interview No. 70): 19/10/2022

when these are aimed at seizing strategic towns and areas' (al Jazeera, 2022). The same report also found that the regular Congolese army, whether or not with Kinshasa's knowledge, supported militias opposing M23 active in the east of the country.

As noted above in figure 16, the executive decision-making steering group on the GVTC is the Council of Ministers, formed of the ministers responsible for the national parks in each partner country (*Environment and Sustainable Development* in DRC, *Trade and Industry* in Rwanda, and *Tourism, Wildlife and Antiquities* in Uganda). A senior IGCP executive diagnosed the perceived tension at the GVTC as political:

*'(The political elites on the GVTC Council of Ministers) are first and foremost politicians, they're not necessarily concerned about conservation.'*⁶¹

Indeed, this diagnosis was repeated more than once, summed up by a former IGCP executive:

*'The political appointees (to the GVTC) were less invested...it was maybe just a seat for them...they weren't necessarily a group of people who were committed to this site, and to managing it in a really dynamic way.'*⁶²

Such is the degeneration of DRC/Rwanda relations that a senior Congolese minister suggested to an ICCN executive that their PAA's participation in the GVTC is in the balance:

*'He told me, "We should leave the GVTC Board, take Congo out of the GVTC altogether!"'*⁶³

And this point is critical, according to a local IGCP executive who interacts with the GVTC:

*'The main problem is that the success of the GVTC relies on the good relations of the three countries. The suspicion and mistrust that develops with the breakdown of regional relations can feed down to political relations in the GVTC, that its successful operation relies on goodwill and stable geopolitical relations between Uganda, DRC and Uganda to operate effectively. If relations break down, so does the institution.'*⁶⁴

⁶¹ ANON (Interview No. 34): 16/03/2022

⁶² ANON (Interview No. 32): 26/04/2021

⁶³ ANON (Interview No. 49): 06/10/2022

⁶⁴ ANON (Interview No. 42): 12/08/2022

5.5.2 GVTC paralysis...and its consequences

The immediate consequences of the geopolitical conflict and the reconfiguration of authority on the GVTC and GVL collaboration are dire. The institution's potential lack of legitimacy in the eyes of the partner states is perhaps what has led to an absence of partner states funding for the GVTC, to the extent that in 2019/20 the GVTC was in effect liquidated, with all transboundary conservation work halted (Trogisch & Fletcher, 2022). The GVTC Treaty, despite being adopted and signed by the then-relevant Ministers in Uganda, Rwanda and DRC in 2015, awaits ratification in all partner states' parliaments. Until ratification, the GVTCT remains simply a Memorandum of Understanding on the operation of the GVTC, rather than a legally binding document. If the GVTCT is ratified, the Treaty would oblige partner states to act in accordance with its stated policies, work closely together on conservation, tourism and community policy harmonisation across the GVL, and engage in extensive information-sharing. And, in the absence of that collaboration, the GVTC institution would be in the position to compel states to comply:

*'The (GVTC) institution would legally be able to tell the states to do things, and the states would need to listen. And I think that is a step some states are not willing to take.'*⁶⁵

A former IGCP Director who worked closely with the GVTC, recognises that, despite signing several treaties and agreements on ever-closer collaboration, this supremacy of sovereignty (Deng, 1995) in the GVL by partner states makes the realisation of the GVTC's potential unlikely:

*'Every time, under the GVTC framework, when we're really about to make really a critical win... the response (from partner states) would be to pull back, and say "No, sovereignty is more important to us than that".'*⁶⁶

Like the hesitancy to label the collaboration an official TBPA, TFPA or Peace Park, it would appear that partner states are only willing to work together in the collaboration up to a limited point. As a result, the GVTC continues to operate but with minimal staffing levels and,

⁶⁵ ANON (Interview No. 18): 03/06/2022

⁶⁶ ANON (Interview No. 37): 20/05/2021

despite the best efforts of GVTC staff, face an inability to implement either the large parts of the current 2024 – 2033 Transboundary Strategic Plan, or action a number of ‘Obligations of Partner States’, in the GVTCT in a comprehensive manner. Nor is the GVTC Executive Secretary able to fulfil many of the duties as set out in the Treaty. Indeed, such is the lacklustre attitude of the partner states towards the GVTC and the Treaty, the Summit level of the institution’s governance, the diplomatic forum where Heads of State from the partner countries would meet as the ‘highest decision-making organ’, providing ‘overall policy guidance’ (GVTC, 2015a: 8), is being removed. Not once have the Presidents of Uganda, Rwanda and DRC met in the GVTC forum to discuss the Collaboration. Once removed, the ultimate decision-making body on the GVTC will be the Council of Ministers, political appointees in the service of and loyal to their respective national government. This move could be seen as the partner states downgrading the importance of the collaboration, potentially further downgrading its legitimacy as a regional political actor.

The regional meetings, so important to the informal collaboration of the 1990s, have not taken place on a regular basis for many years, which has led to isolation and potential ghettoisation among park staff (Trogisch & Fletcher, 2022). As one senior IGCP executive said:

‘(The GVTC) ‘cannot carry out their programme or policies, which are underpinned by peace and collaboration between the high authorities, when governments are in conflict. It makes it very difficult to run transboundary meetings, moving staff from the three countries to one, when diplomatic relations are so poor.’⁶⁷

Returning to the beginning of the chapter, there has also largely been an absence of joint or coordinated patrols along the forest borders for a number of years. An IGCP employee also attributes this to the geopolitical conflict:

‘Before GVTC was created, for years park rangers and management would collaborate with their neighbours and it was very effective. There was really open communication. But this is no longer the case. Joint patrols haven’t happened since 2016 or 2017, which is a direct result of these regional questions.’⁶⁸

⁶⁷ ANON (Interview no. 42): 12/08/2022

⁶⁸ ANON (Interview no. 25): 01/08/2022

Indeed, senior park staff are under no illusions as to why coordinated patrols are no longer happening, summed up by senior park executive:

*'When relations are like they are, then when staff from one park visit another, staff who are working for the government, then there is great suspicion between staff... So, the communication necessary for coordinated patrols suffers, and coordinated patrols are less likely to happen: how would we communicate, how would we meet? It makes things very complicated and difficult. The suspicion and mistrust between governments at a regional level filter down and affects relations in the collaboration.'*⁶⁹

The consequences of the political paralysis of transboundary conservation efforts on GVL biodiversity has been deleterious. As the senior park official at the beginning of this chapter reported, in the Virunga forests there has been a sharp increase in cross-border smuggling of exotic fauna and ivory, as well as the growth of a lucrative but illicit and destructive timber trade, not to mention an increase in poaching at forest borders by members of park-adjacent communities. The IGCP's aim of maintaining a transboundary conservation regime above (or below) geopolitical relations has suffered enormously, as a current IGCP employee, who was active in the 1990s, noted:

*'The flexibility to say that conservation is separate from the political has become more difficult.'*⁷⁰

An IGCP executive put it more bluntly:

*'What will kill the collaboration are the political interests and conflicts that exist between the partner countries outside of conservation. These tensions are reflected at the GVTC Ministerial and Board level. We desperately need to depoliticise what has become a deeply political arena.'*⁷¹

A former IGCP executive, who worked in the GVL for 15 years throughout the 1990s and oversaw initial plans for the formal collaboration, diagnosed the current health of the GVTC:

⁶⁹ ANON (Interview No. 20): 25/08/2022

⁷⁰ ANON (Interview No. 40): 06/07/2022

⁷¹ ANON (Interview No.11): 08/07/2022

*'I think it has struggled to remain relevant. It doesn't have any real authority or legitimacy, and so it has struggled to raise funds, to pay salaries, to pay for what they want it to do... I think it has really struggled in terms of having a clear mandate.'*⁷²

And the same former IGCP executive summed up the overall situation:

*'I actually think that it needs to be reviewed the whole structure, about it being political, you know? It's become so political, and I think it needs to be built right back into the hands of the people who are actually on the ground and invested in the parks.'*⁷³

5.6 The GVTC as a peacebuilding authority?

Despite these tensions, the GVTC does have the potential to facilitate some forms of peacebuilding, and it is worth finishing this chapter by exploring how transboundary institutional authority can and has been deployed in the GVL to prevent conflict. The GVTC has a dual role in the GVL, as a senior GVTC employee describes it:

'(The GVTC is) proactive and reactive. We proactively attempt to harmonise conservation practices between PAAs, and reactively act as an intermediary to address conflicts that arise between the communities or partner states within the parks or about conservation... Although we try to make sure that conflict situations don't arise in the first place and put in place processes and systems of engagement such that all parties are up to speed on actions that are expected in a transboundary environment.'

⁷⁴

Indeed, the institution's legal framework allows space for conflict issues between partner states to be addressed, a situation which can potentially be moved towards a peaceful resolution at regular and extraordinary meetings convened by the GVTC Executive (Hsiao, 2018).

⁷² ANON (Interview No. 34): 06/03/2022

⁷³ ANON (Interview No. 34): 16/03/2022

⁷⁴ ANON (Interview No. 60): 06/08/2022

Despite these peacebuilding aims, the potential for the institutional collaboration to act as a form of peacebuilding authority is contested by the various internal and external actors. In interviews with representatives of Western donors to the collaboration, mentions of opportunities for greater cooperation between the conflicting partner states that the GVTC could facilitate are common, best summed up by a diplomat of Norway, who oversaw Norwegian government funding to the GVTC:

*'The fact that at the technical level of these three countries were working together... we thought that if they could work together on a particular conservation, which is so important in that particular area, that could also lead to some more (positive) border discussions, ultimately... That is an excellent example of how you and others, in a very practical way, could work together. I think that was basically the... the rationale for us (donating), first of all.'*⁷⁵

Other international donors conveyed similar sentiments. However, the view from Western donors, reflecting the opportunities for cooperation through shared ecological resources described in environmental peacebuilding literature (Conca & Dabelko, 1990), is largely at odds with those of the initial indigenous conservation practitioners. Nor are those hopes for improved regional relations through conservation collaboration reflected in the escalation of cooperation up the political scales. Indeed, as a senior Western IGCP executive reflected, nowhere in the GVTC Treaty is the word 'peace':

*'There's a little bit of friction there, because donors and other (Western) stakeholders see the framework as providing some of that peacebuilding security process. And, frankly, the proper owners of GVTC, the partner states, don't really see GVTC as having a legitimate role in that space.'*⁷⁶

One of the original local conservation practitioners involved in the regional gorilla protection programme was even more blunt:

*'The purpose was really just for conservation. Not a peacebuilding initiative.'*⁷⁷

⁷⁵ ANON (Interview No. 19): 30/11/2021

⁷⁶ ANON (Interview No. 37): 20/05/2021

⁷⁷ ANON (Interview No. 56): 20/05/2021

Despite this, evidence collected during the fieldwork found that, among contemporary indigenous park actors, there is immense hope in the potential realisation of the role the GVTC could play in peace and security in the region (appendix 6). And indeed, the GVTC institution itself appears to have been constructed with conflict resolution mechanisms inbuilt, in order to anticipate or address potential conflict. Below are five notable examples of situations that the GVTC deployed its transboundary authority to prevent potential conflict, or enhance collaborative processes: first, provided diplomatic and security interventions to enhance safety for park staff; second, deployed political capital to settle border disputes within the GVTC jurisdiction; third, deployed institutional authority to intervene and settle border wall disputes; fourth, negotiated COVID policy responses; and fifth, provided high-level diplomatic solutions to potential international crises.

As the Virunga forests are often areas of conflict, activities such as gorilla surveys, that involve coordinated teams across partner countries systematically sweeping designated areas of the forest and recording evidence of gorilla presence (Bermejo et al., 2006) could often be undertaken in perilous conditions. For example, in the 2018 survey, an all-Congolese ranger team were fired on and arrested by the Ugandan army for crossing an unmarked border from the Sarambwe forest in DRC into Bwindi NP in Uganda. The difference in 2018 from previous times a ranger team crosses a forest border was that the GVTC had the legal authority to intervene, free the rangers, and address the conflict before it potentially spiralled into an international incident. An employee from an NGO involved in the survey remembers the relative ease of the transboundary activity:

*'From the ranger, certainly from the park managers and definitely up to senior levels of government, the surveys were an all-team effort. We still had a few security incidents that we had to manage, but they were managed with no consequences to human life. It gives you a sense of how fragile it is... but clearances went up to the highest levels for the surveys to go on.'*⁷⁸

⁷⁸ ANON (Interview No. 37): 20/05/2021

Second, the Sarambwe/Bwindi incident reflects a border dispute between Uganda and DRC within the GVL that began in 2002. For almost two decades, the unmarked border in the contiguous forests (figure 17) saw Ugandans entering Sarambwe to cut down trees, collect resources and plough land for agriculture. Ugandan farmers were arrested on several occasions by DRC forces; planks, machetes, hoes and pit saws were seized; dogs were killed; and ICCN rangers were taken prisoner by Ugandan soldiers (Sikubwabo Kiyengo, 2019). Similarly, an IGCP employee remembers how critical the GVTC was in addressing a site of recurring conflict between the two states:

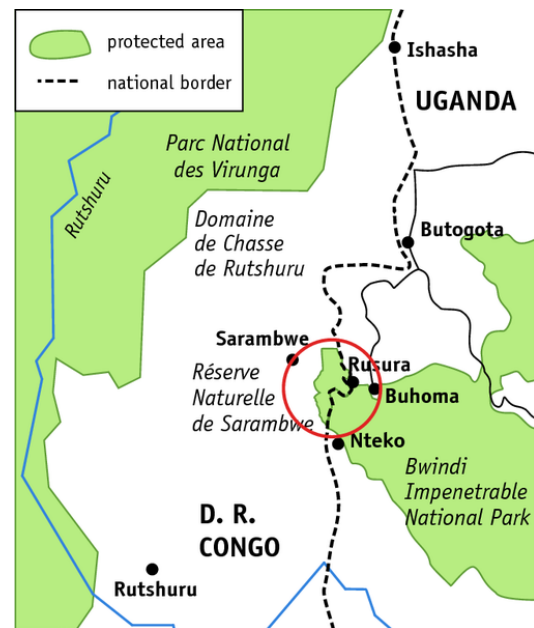


Figure 17. Map of formerly contested Uganda/DRC border. (Berggorilla & Regenwald Direkthilfe e. V., 2024)

‘This issue had been live for many years and was threatening to escalate into a larger conflict. Neither the parks nor the national or local district administrations in either country were able to bring about a satisfactory resolution. So that issue was escalated by the GVTC to the Ministerial Board level in order to create a kind of commission to explore a border demarcation.’⁷⁹

The GVTC provided the authority, the resources, and a diplomatic platform to facilitate discussions on border composition between technical teams composed of cartographers, local chiefs, community leaders, elders, rangers and military personnel from both countries:

‘Senior IGCP officials recognised the importance of this incidence to the region and the GVTC’s role: ‘It headed off what could have been a serious diplomatic or military incident. This really shows the potential of the GVTC to be a neutral diplomatic forum, as an independent broker. ‘It’s fantastic that you have the two armies on both sides and GVTC supervising.’⁸⁰

⁷⁹ ANON (Interview No. 25): 01/08/2022

⁸⁰ ANON (Interview No. 42): 12/08/2022

Indeed, such is the authority of the GVTC in the conservation landscape, and as a forum for collaboration and negotiation, current senior conservation executives believe that the institution has the potential to be a significant regional actor. As a former senior Rwandan government official said of the peacebuilding potential of the GVTC:

‘Conservation is a part of the peace, and the two are connected; good work in conservation leads to peace, and peace leads to conservation... The objectives of the conservation of nature can be a very strong objective in restoring peace. But, unfortunately, we are still fighting.’⁸¹

Third, the GVTC’s transboundary political role can also be effective in constructing park boundary walls or ditches (fig. 21) when addressing human/wildlife conflict in contested areas, specifically when park fauna leaves the park in one country to crop-raid into a neighbouring. For example, there is a kilometre of Mgahinga National Park’s southern boundary in Uganda which runs up against the Rwandan border. To the north of the border is the Mgahinga park in Uganda. The southern side is farmers’ crop fields in Rwanda. There is no physical park boundary to deter wildlife from leaving Mgahinga, and neither country can dig a trench (figure 18) or build a wall because the area is an international border. The consequence of this ambiguity is that animals cross the border out of the park from Uganda to devastate Rwandan farmers’ crops. The GVTC, however, deployed its diplomatic authority to create a dialogue with the Ministry of Foreign Affairs and Ministry for Environment of both states towards successfully addressing the demarcation issue. An IGCP employee noted the ability to bring in partner state governments as the GVTC’s advantage over the NGO:



Figure 18. A border ditch in the Volcanoes National Park, 2022. (Image author’s own).

⁸¹ ANON (Interview No. 49): 06/10/2022

'Any issues that involved borders or issues of sovereignty gets escalated, via the GVTC, to the ministerial level, and then that involves the national governments, something the IGCP couldn't do'.⁸²

Fourth, gorilla-related tourism, a key source of income for local communities and GVL biodiversity conservation, dried up amid the COVID-19 pandemic, which resulted in an increase in illegal activities as local community members, cut off from funds from the revenue-sharing scheme, enter the parks in search of wild meat, bamboo, timber and other commodities (UNEP, 2021). Maintaining effective coordination between the three countries, the GVTC set up regular virtual meetings between park and government officials to align actions and facilitate data sharing (GVTC, 2020), which ensured continued protection of the landscape and put in place protective measures for the gorillas and wildlife.⁸³ Furthermore, for communities whose incomes were impacted by reduced tourism, GVTC provided aid and promoted alternative livelihood programs to disincentivise illegal use of park resources (GVTC, 2020b), while also securing extended external funding from the Dutch Embassy in Kigali in lieu of tourism revenue.⁸⁴ A former senior Rwandan government official remembers the communal efforts to implement COVID policies:

'COVID was the most challenging period for us. At the time we (the GVTC Board) were trying to put in place protective measures for the gorillas and the wildlife in the 7 national parks in the GVTC jurisdiction... we had to make sure the parks and forests in one country were COVID-safe, while at the same time align with my colleagues in the other partner states to come up with an ecosystem-wide preventive strategy for the mountain gorillas. We came up with different scenarios for everything and everything that could happen, and then what proactive or reactive measures we could take.'⁸⁵

Fifth, in 2019, the Hirwa community of mountain gorilla passed north from Volcanoes NP in Rwanda across the forest border into the Mgahinga NP in Uganda. At that time, political conflict between Uganda and Rwanda was high, and the border between the two countries was closed. Rwanda claimed the Hirwa as their own, and that Uganda was generating revenue

⁸² ANON (Interview No. 25): 01/08/2022

⁸³ ANON (Interview No. 24): 09/11/2022

⁸⁴ ANON (Interview No. 54): 12/05/2021

⁸⁵ ANON (Interview No. 24): 09/11/2022

from them and not returning 50% of the gorilla-tracking revenue to Rwanda, as set out in the revenue-sharing MoU (see table X). Furthermore, the Rwandan government further accused Uganda of blocking the Hirwa group from returning to Rwanda, and an official complaint was lodged by Rwanda Embassy in Kampala to the Ugandan Minister of Foreign Affairs. A Ugandan conservation actor in the GVL noted the de-escalation capacity of the GVTC:

*'It caused quite the conflict between the countries. It was very much a war of words between the park authorities... but the conflict might have escalated fully to government levels, given the current tension between the two countries.'*⁸⁶

The GVTC was able to deploy its political and diplomatic authority once again to address the conflict facilitated Rwandan rangers crossing the closed border to Mgahinga NP to monitoring the Hirwa, which de-escalated the situation.

5.7 Conclusion

This chapter explored how epistemic conservation community fundamentally shaped and reshaped the reterritorialised landscape that emerged from the GVL frontier space, revealing a complex negotiation between institutional bricolage, contested authority, resource access, and geopolitical relations that has both facilitated and also constrained transboundary conservation efforts. To answer the research question more broadly - *How has the escalation of collaboration in biodiversity conservation across scale shaped, and is shaped by, authority, access, and political cooperation in the Greater Virunga Landscape* – we can place efforts to create the GVTC as central to these escalation dynamics. The GVTC itself represents the territorialised landscape that emerged through processes of institutional bricolage, as social actors in the frontier combined existing informal social collaboration networks with formal state authority, scientific legitimacy, and formal diplomatic frameworks to construct a new and novel transboundary arrangement of authority and access. Furthermore, while some indigenous communities were sidelined and marginalised, other local people, as bricoleurs, sought accommodation with the conservation intervention, creating new governance arrangement in the shape of local credit unions, community councils, and cooperatives to

⁸⁶ ANON (Interview No. 47): 19/08/2022

access conservation benefits for developmental goals. These arrangements illustrate the plurality of governance institutions and landscapes, with multiple and overlapping agendas. The chapter adopted an institutional bricolage lens because of the concept's attentiveness to these forms of adaptation and the continuous evolution of institutions to achieve successful outcomes.

As this new governance arrangement was shaped by outbreaks of peace between the partner states in the early 21st Century, so the effectiveness of this new governance arrangement was repeatedly reshaped by ongoing geopolitical tensions in the region. The institutionalisation of the collaboration saw full authority for transboundary conservation transferred from the IGCP to the GVTC in 2018. As a result, these regional conflicts continue to severely impact the operational effectiveness of the GVTC, revealing the fragility of interstate collaboration when confronted with interstate political disputes. Without the GVTC functioning as a body to operationalise transboundary policies, borders appear to remain unprotected from poachers and illicit resource trades, contributing to the degradation of GVL biodiversity. The chapter also revealed how the GVTC Treaty institutionalised the tension between state sovereignty and transboundary collaboration, with its simultaneous emphasis on the preservation of state authority over resources yet, at the same time, declaring an emphasis on shared ecosystem management. So, this new form of authority paradoxically, and continuously, challenges traditional state sovereignty while at the same time extends state control over remote borderlands and the communities that live either alongside or formerly inside the protected areas. These contradictions and conflicts reflect the ongoing negotiation of authority in postcolonial landscape settings, where Western discourses of transboundary conservation confront state efforts to maintain and extend authority and control over resources and property.

Western conservation actors, as key actors in the epistemic conservation community, played a crucial role in shaping the escalation of collaboration, able to deploy scientific expertise and legitimacy, and influence policy decisions. But as noted, the transfer of authority for transboundary conservation to the GVTC has created new challenges for the collaboration, particularly as political appointees both might transfer their government's prejudices and suspicions to the GVTC Board, and at the same time may lack the same level of commitment

to conservation as those indigenous and Western conservation actors. (Re)depoliticising the collaboration might be the answer to the paralysis of the GVTC, as has been suggested by more than one actor. This is telling. It would seem that the process of rendering conservation technical (Li, 2007b), considered a pejorative in normative conservation discussions, might actually be the most beneficial form of governance in the GVL.

The chapter also revealed the potential, and the limitations, of transboundary conservation entanglements with environmental peacebuilding discourses. The diplomatic framework of the GVTC has given the institution a legitimacy and capacity to mediate in minor disagreements about access to forest resources and border disputes (which, arguably, might well have escalated into considerable conflicts), and facilitate diplomatic engagement between the states. So, Western donors that contributed to the collaboration because of the peacebuilding potential were not necessarily wrong in their actions, but once again the GVTC's effectiveness at state mediation is constrained by broader geopolitical tensions. In fact, the legitimacy and authority of the GVTC remains solely contingent on the ongoing support, engagement and buy-in of the partner states, which becomes a problem when one or more partners begin to discuss leaving the collaboration as a result of geopolitical tensions. It reveals the fragility of such transboundary arrangements when confronted with national interests. Indeed, critical institutionalism emphasises this ongoing, negotiated nature of authority in resource governance.

The escalation of collaboration up the political scales by the epistemic conservation community has produced a complex, multi-layered and antagonistic governance regime that both challenges and reinforces state authority. On one hand it has introduced new opportunities for coordinated ecosystem management. But on the other, it has rendered those management arrangements vulnerable to regional political dynamics. This rupture between epistemic knowledge and realities on the ground threatens not just the collaboration but, as we shall see in chapter 6, the gorillas and their forest home. The hope remains, however, from conservation actors inside and outside the collaboration, that the GVTC can still be shaped into an institution that can effectively administer transboundary conservation services and realise its capacity as a force for diplomacy, tristate engagement, and peace that was built into its design for life.

Chapter 6 All around the world: Epistemic authority and the violent paradox(es) of conservation success

‘Native Americans were not mistaken when they accused the Whites of having forked tongues. By separating the relations of political power from the relations of scientific reasoning while continuing to shore up power with reason and reason with power, the moderns have always had two irons in the fire. They have become invincible.’

- Latour, 1993: 38

‘The commercialisation of gorilla conservation is a capitalistic approach to maximise profits from a resource, without minding other stakeholders involved.’⁸⁷

- Anonymous, Ugandan conservation executive.

‘(In 1990) the Ugandan government rangers arrived with guns, and white people were with them with clipboards, white conservation people. We were told to move out, and if we refused, we were beaten.’⁸⁸

- Anonymous, indigenous Batwa elder, 2022

6.1 Prologue

Chapters 4 and 5 traced how the epistemic conservation community successfully navigated violent conflict to establish an evolving transboundary collaboration between the three partner states. Chapter 4 performed three roles in analysing the collaboration in the Virunga forests: first, it revealed the emergence of an epistemic conservation community in the GVL, and explored how this community reshaped the GVL into a frontier space, challenging existing resource governance arrangements and state authority in the name of promoting gorilla conservation in the transboundary Virunga forests; second, it explored how, during a decade of regional violence, that community played a key role in building trust and collaboration across boundaries, bringing together staff from the contiguous national parks in DRC, Uganda

⁸⁷ ANON (Interview No. 42): 12/08/2022

⁸⁸ ANON (Interview No. 69): 09/08/2022

and Rwanda that provided a challenge to the sovereignty of state authority; third, the chapter dissected how the epistemic community manufactured, produced or influenced conservation knowledge, artifacts and policies that led to increased protection for gorillas and their forest habitat home, protection that led to a corresponding increase in gorilla numbers. The chapter finally touched on how this informal collaboration eventually led to increasingly formal transboundary conservation agreements between the partner countries in the early 21st Century. Chapter 5 continued the narrative of cooperation, revealing how the formalisation of conservation in the GVL emerged through processes of institutional bricolage. The epistemic conservation community blended informal collaboration networks with formal diplomatic frameworks to create new transboundary governance arrangements in the shape of the Greater Virunga Transboundary Collaboration (GVTC). The GVTC reconfigured and reshaped authority and resource access, but at the same time also revealed the fragility of collaboration when confronted with national interests. So, chapter 4 investigated the historical collaboration at the local level, and chapter 5 expanded the analytical horizons to draw in formal political forces at regional levels. This chapter expands the scope of the case study further still to examining the contemporary consequences and impacts of this epistemic trajectory.

6.1.1 Introduction

This chapter reintroduces the concept of Foucault's *episteme* as the framework through which to answer the third research question: *What are the contemporary impacts of postcolonial conservation strategies in the GVL, and how do their internal contradictions point towards potential epistemic rupture?* The episteme refers to the underlying system of knowledge, beliefs and ways of thinking that defines what counts as legitimate knowledge in any one epoch, or historical time period (Kelly, 2019). As the thesis has discussed so far, the global epistemic conservation community deployed access mechanisms of knowledge production and power to reshape the GVL landscape and construct new governing institutions and novel forms of authority. This chapter examines the contemporary impacts of the epistemic trajectory in the GVL, revealing how postcolonial legacies in dominant conservation knowledge and practices continue to shape authority, access and human-nature relations in the GVL, even as its internal contradictions become increasingly visible.

The chapter begins below with brief reminder of the episteme as a framework for analysing the contemporary consequences of gorilla conservation in the GVL, outlining the continuation of its dominant form, from colonial to capitalist conservation. The chapter then deploys that framework to engage with a number of institutions and impacts that are having a profound effect on the GVL conservation collaboration, on the partner state authorities, on local communities that engage with the intervention, and on the gorillas themselves. First, the chapter examines the dominance of global (Western) epistemic conservation community discourse at 2022's African Protected Areas Congress (APAC 2022), a conference that drew in conservation parties and state representatives from over 40 African countries to discuss the future of conservation on the continent (see Najib Balala's words at the beginning of this thesis). Next, the chapter moves on to discuss the contested epistemic authorities in the Virunga National Park, three centres of authority that claim a legitimacy to Virunga forest conservation: Western NGOs, the Congolese state, and the GVTC transboundary institution. This section also extends the connection between the feature of the dominant conservation episteme, protected areas, with the green militarisation of epistemic boundary maintenance. Staying with the theme of protected areas, the chapter discusses the colonial legacies of 'fortress conservation' (Knox, 2025), and the persistence of the colonial episteme, centring the marginalising experiences of the former forest dwelling indigenous Batwa community. The systemic violence against local communities in the GVL is further discussed as the chapter exposes the historical echoes found in the planned expansion of Rwanda's Volcanoes National Park, an expansion that will involve evicting communities from their homes in the name of biodiversity conservation. Community evictions at the intersection of conservation and ecotourism have been a constant feature in the GVL, so the chapter next turns to the market logics of gorilla tourism and GVL safaris, exploring the impacts of the commodification of nature and the how interstate competition over maximising revenue is threatening the collaboration. Finally, the chapter turns more fully to the epistemic tensions and contradictions in the conservation intervention, or what Foucault describes as 'epistemic discontinuity' (Kelly, 2019), highlighting the paradoxes of biodiversity conservation in the GVL.

6.1.2 Re-framing the episteme

As noted in the theoretical framework in chapter 2, an analysis of the epistemological grounding of Global South conservation uncovers the assumed and unspoken drivers, political relations, political economy, and implications of a conservation that is often erroneously presented as simple technical solutions. The production and deployment of conservation knowledge that gave the IGCP its legitimacy and authority in the region can be said to be a product of a particular episteme, when certain truths about nature, conservation and development were considered self-evident and beyond debate. The contemporary conservation episteme in the GVL operated/es through what Foucault called a specific 'positive unconscious of knowledge: a level that eludes the consciousness of the scientist and yet is part of the scientific discourse' (Foucault, 1994: xi). This episteme structures what and whose knowledge is legitimate about gorillas and biodiversity conservation, what ideas are acceptable and who can speak authoritatively.

Furthermore, the analysis also reveals the 'lateral relations' (Foucault, 1972) that together dominate the various epistemologies across conservation fields that exist in parallel to, and support and shape, each other to the extent that alternative knowledges become unthinkable (Foucault, 1979). This unthinkable knowledge Foucault refers to as 'subjugated knowledge': 'blocks of historical knowledges that were present in the functional and systemic ensembles, but which were masked'; and, second, knowledges 'that have been disqualified as nonconceptual knowledges, as insufficiently elaborated knowledges: naïve..., hierarchically inferior knowledges... that are below the required level of erudition or scientificity' (Foucault, 1976: 7). What causes certain knowledges to be subjugated depends on who wields power in the episteme, specifically who controls the regime of truth – how an episteme brings with it new means of control, coercion, constraint and domination (Rouse, 2003). Whoever wields this power also dictates 'the conditions of possibility' for knowledge, and so for Foucault, the question becomes who or what determines the development of thought and knowledge in a given period (Foucault, 1970). By locating relations of conservation production in the historical episteme of European colonialism, the analysis animates the national parks as sites recreating forms of colonial authority, marginalisation and violence.

6.1.3 A note on the participants

Expanding on previous chapters, this chapter engages with fieldwork interviews across scale, representing views and information from the broad range of almost 100 participants: park-adjacent local community groups; international analysts and academics with expert knowledge of the region; NGO executives; indigenous and global political elites; park staff and executives; and representatives of international funding bodies. Additionally, the chapter will also draw upon notes and interview data gathered at the inaugural APAC (African Protected Areas Congress), a 5-day conference held in the Kigali Convention Centre, Rwanda, in July 2022, and from participant observation fieldwork notes recorded during a day spent on patrol with a Volcanoes National Park security team.

6.2 APAC 2022: Africa's place in the global epistemic conservation community

Scientific knowledge, like all knowledge, reflects existing power structures like academic disciplines, nations, and socioeconomics. Science is seen as universally legitimate, and this politically shaped scientific knowledge is key in showing, forming, and changing how different actors see their interests (Litfin, 1994; Neumann, 2000; O'Brien et al., 2000; Sivaramakrishnan, 1999). Chapter 4 discussed how artifacts such as conferences, workshops, research collaborations, and scientific publications facilitate the dissemination and sharing of knowledge, and in doing so contribute to maintaining assumptions and interpretations of the conservation episteme (Adams & Mulligan, 2003). Also highlighted was the role of international conferences in creating knowledge networks that facilitated rapid flows of (Western) information and ideas among stakeholders, and more importantly acted to consolidate (Western) epistemic standards in global conservation regimes. As a result, Western NGOs, conservation institutions and philanthropic foundations can often be found organising, delivering and sponsoring conservation conferences, spaces that serve as pivotal sites for this production, legitimisation, and dissemination of scientific conservation knowledge (Betsill & Corell, 2001; Moletsane, 2015). For example, the inaugural African Protected Areas Congress (APAC2022), held in Kigali Conference Centre, Rwanda, in July 2022, provided an opportune example to explore how the dominance of northern hemisphere

organisations and funding regimes in African conservation reinforce Western conservation knowledges and political economy.

APAC 2022, a five-day conference on African protected areas held in Kigali, Rwanda, featured representatives from over 40 African countries, former African Presidents and prime ministers, current government ministers, and countless numbers of



Figure 19. Kigali Convention Centre, Kigali, Rwanda. (Image author's own)

indigenous, regional and global conservation NGOs, philanthropic institutions, and civil society groups. APAC 2022 produced the *Kigali Call to Action*, establishing APAC as 'a congress by Africans and for Africa – celebrating and acknowledging the skills and commitment of Africa to conservation, sustainable use of nature and human well-being' and that '... 'congress participants committed to act with urgency to address the biodiversity, climate change and health crises, and their relationship to human development and well-being, yielding a nature-positive outcome' (APAC, 2022). The conference was co-convened in Kigali by the Rwandan government, the International Union for the Conservation of Nature (IUCN), the World Commission on Protected Areas (WCPA) and the African Wildlife Foundation NGO (table 7). The conference was conducted in the former imperial languages of English, French and Portuguese.

The organisations involved in convening and sponsoring APAC 2022 (figure 20 and table 8) listed 15 headline sponsorship organisations, ranked from platinum to bronze depending on contributions. These ranged from government ministries to NGOs, private philanthropist foundations to nature services companies. And of those 15, 12 were organisations from the US or Europe, and one



Figure 20. APAC 2022 Co-conveners and sponsors' boards at APAC 2022. (Image author's own)

from South Africa. Two (ACP & BIOPAMA) were pan-regional organisations that included African state membership.

Table 7: APAC 2022 co-convenors

Organisation	Country/ies	Notes
Republic of Rwanda	Rwanda	National government and presidency.
International Union for the Conservation of Nature (IUCN)	Switzerland	UN-adjacent global organisation working in the field of nature conservation and the sustainable use of resources.
World Commission on Protected Areas (WCPA)	Switzerland	An IUCN commission, focused specifically on protected area planning, policy advice, and investment.
African Wildlife Foundation (AWF)	US (but based in Kenya)	See table 1.

Table 8: APAC 2022 sponsors

Sponsor type	Organisation	Country/ies	Notes
Platinum	Federal Ministry for the Environment, Nature Conservation & Nuclear Safety	Germany	Environment ministry of the German government.
Platinum	ACP (African, Caribbean and Pacific Group of States)	International	Collective aimed at sustainable development and poverty reduction within its member states, as well as a greater integration into the world's economy.
Platinum	European Union	Europe	A political and economic union of 27 European member states.
Platinum	BIOPAMA (Biodiversity and Protected Areas Management programme)	International	Provides tools, services and funding to conservation actors in the African, Caribbean and Pacific (ACP) countries.
Platinum	MAVA Foundation	Switzerland	Charitable foundation securing and providing funding for conservation partners. Created in 1994 by Swiss philanthropist Luc Hoffmann, co-founder of WWF. Hoffman's father was the founder of the pharmaceutical company Hoffmann-La Roche (also known as Roche). MAVA closed in 2022.
Platinum	WWF	Switzerland	See table 1
Gold	National Geographic	USA	Monthly magazine focusing on geography, history, nature, science and world culture.
Gold	Wyss Foundation	USA	Charitable foundation securing and providing funding for conservation and development. Created in 1998 by Swiss billionaire, businessman and philanthropist Hansjörg Wyss, founder and the former president and chairman of Synthes Holding AG, a medical device manufacturer.

Gold	USAID	USA	US government agency responsible for administering civilian foreign aid and development assistance.
Gold	IFAW (International Fund for Animal Welfare)	USA	Conservation foundation funded and supported by individual and major corporate donors.
Gold	South Pole	Switzerland	A carbon finance consultancy, having provided services or carbon offsets to companies including Nestlé, Gucci, EY, Hilton and ALDO Group.
Silver	ESRI (Environmental Systems Research Institute)	USA	World's leading supplier of geographic information system (GIS) software, web GIS and geodatabase management applications.
Silver	The Nature Conservancy	USA	Global membership environment and conservation organisation.
Bronze	International Crane Society	USA	Bird conservation NGO.
Bronze	Endangered Wildlife Trust	South Africa	Conservation NGO, focusing on the protection of threatened species and ecosystems.

The opening day of the conference closed with a party for all delegates on the rooftop terrace of the Kigali Conference Centre, with freely dispensed champagne and canapes (figure 21), and live performances from indigenous African dance troupes. The second day of APAC 2022 closed with another rooftop event, this time a private party hosted by the African Wildlife Foundation (AWF), and was invite only, as was the rooftop party hosted by the US NGO Wildlife Conservation Society (WCS) that closed the fourth day.



Figure 21. Champagne at the rooftop party.
(Image author's own)

6.2.1 The political economy of conservation knowledge

Perhaps unsurprisingly, given the sponsorship and involvement of so many Western organisations in APAC2022, market-driven conservation, 'making nature pay', remained the unchallenged ideology underpinning the five days of conservation discussions, funding flows from Northern hemisphere institutions shaping the contours of epistemic conservation discourse and boundaries. This was summed up nowhere better than in the *Kigali Call to Action for People and Nature* (2022) released at the conference's conclusion:

'Greater public and private financial investment in nature conservation and protected and conserved areas concomitant with their value and *the flow of ecosystem services* in the wider production landscapes and seascapes...' (APAC2022) (emphasis my own)

Despite the dominance of Western conservation voices at the conference, an (American) AWF executive interviewed at the conference insisted that APAC 2022 in fact demonstrated how Africans are deciding what African conservation should look like:

*'APAC is a great example of what AWF does. It is the first time that African leaders from 40-odd countries came together to have a conversation, interface with each other, and then culminate a meeting with largely a conservation agenda for the continent that they've created, which is really important if conservation in Africa is going to be successful.'*⁸⁹

However, the lack of alternative voices or views challenging the primacy of conservation regimes based on ecosystem services at APAC 2022 would suggest, though, that the conference actually represented success in reinforcing liberal capitalist values in African conservation. This success could be considered a bold example of a crucial feature that empowers a paradigm's ascent to a position of hegemony (Hess, 1997). The sponsorship of the conference by prestigious global (Western) NGOs, institutions and philanthropic foundations - that largely constitute the epistemic conservation community - supports the paradigm's place as the dominant production of conservation knowledge and strategy within the colonial conservation episteme. Western thought and action continue to dictate research and practice (Kuhn, 1962), even if an American NGO executive, this time at WWF, might protest that APAC 2022 is African-led:

'Africans are now saying here, "We need to deal with our own continent. We've got to start paying for our own conservation"'.⁹⁰

Of course, despite the speech from Najib Balala, about African being 'viewers to conservation' in their own countries, several of the indigenous Batwa people interviewed would challenge this. Drawing on their successful historic stewardship of the forests for generations, the Batwa described their relationship with their former forest homes as one of spiritual connectivity, of living in harmony with the forests, of worshiping forest gods, and giving praise to those gods for supplying sustenance and medicinal properties. For their part in this spiritual

⁸⁹ ANON (Interview No. 61): 28/09/2022

⁹⁰ ANON (Interview No. 29): 25/07/2022

partnership, the Batwa ensured regenerative capacity for the forest, engaging in nomadic behaviour, moving around the forest to ensure no part was overly harvested:

*'We never hunted monkeys, gorillas or any apes, because we think they are our relatives.'*⁹¹

*'Our grandparents were the ones who were custodians of these ancestral lands. We were the original conservationists.'*⁹²

However, the Western paradigm of conservation underpinned APAC 2022, cohering with and naturalising the dominant ideological beliefs and values of western market-based solutions, of extending the accumulative forces of capitalism into African nature. The seemingly uncontested role of the epistemic conservation community as 'expert knowledge brokers' (Duffy, 2013) at APAC 2022 highlighted and reinforced the epistemic dominance of Western scientific knowledge and practices. Under this dominance, Batwa conservation knowledge in the GVL has been routinely ignored or marginalised. De Sousa Santos' 'abyssal thinking' captured this process in the episteme, where indigenous knowledge is placed on the opposite side of the 'abyssal line' to Western thought, reducing it to 'traditional beliefs' awaiting scientific validation rather than as a complete epistemological framework (2014). At APAC 2022, the lateral relations that facilitated the wildlife economy (see 7.2.2) became a naturalised category that noticeably foreclosed other possibilities.

6.2.2 The capture of African elites into the episteme

At the close of the third day of APAC 2022, the African Leadership University (ALU) hosted an invite only event, described in the conference schedule as: 'Cocktails to create space for Business of Conservation Conference community & stakeholders to share ideas, develop business opportunities and networks, and grow partnerships and collaboration opportunities in person' (APAC 2022b: 9). This is a reference to ALU's *School of Wildlife Conservation: Leading the Business of Conservation* that is 'about creating and maintaining economic

⁹¹ ANON (Interview No. 4): 10/07/2022

⁹² ANON (Interview No. 39): 12/08/2022

incentives for the sustainable utilisation of wild resources, and removing economic incentives which drive unsustainable use' (ALU, 2023). ALU produces regular reports and case studies on the 'wildlife economy' across Africa. These reinforcing feedback loops, where African institutions like the ALU's *School of Wildlife Conservation* have been created to service this dominant political economy of conservation. African elites seek a place within this political economy, finding employment in senior positions in NGOs and Western or Western-backed institutions within the episteme, further offering a local legitimacy to the Western conservation hegemony (Brockington, 2014; Holmes, 2011). For example: the Peace Parks Foundation, an NGO committed to catalysing opportunities for peace through transboundary conservation, counts seven current African kings or presidents as Honorary Patrons (Peace Parks, 2023); former Congolese parks authority Director (and former member of GVTC Board) Pastor Dr. Cosma Wilungula sits on the DRC board of African Parks NGO (African Parks, 2023); and former Rwandan protected areas chief (and former member of GVTC Board) Belise Kariza now serves as Rwanda Country Director for AWF. APAC 2022 itself included three African former heads of state as congress patrons: Hailemariam Desalegn Bosh of Ethiopia; Issoufou Mahamadou of Niger; and Festus Mogae of Botswana (AWF, 2022a). The quoted Mr. Balala is now, post-Kenyan government and post-APAC 2022, a tourism advisor for the Tony Blair Institute, and vice-President of Flora and Fauna International (FFI), one of the IGCP NGO coalition partners in Virunga.

The dominance of Western NGOs, philanthropies and companies at APAC 2022 revealed the colonial episteme's durability. The epistemic conservation community acts as conservation knowledge brokers who interpret and frame scientific information and, consequently, wields significant political power. And the inclusion of African elites in Western conservation NGOs suggests that Western scientific paradigms and expertise remain privileged in African conservation policy and practice in general, and that African-led conservation simply operates within unchallenged epistemic boundaries (Mbaria & Ogada, 2016). This status has implications in their historic hegemonic ability to frame and interpret scientific knowledge and authority (Duffy, 2013), where their claims to scientific expertise proved to be substantial sources of political power and remain an integral part of making and maintaining global orders (Haas, 1992; Jasanoff, 2006; Litfin, 1994). Despite the congress being held in Rwanda and funded in part by African states, and producing commitments to African solutions to

African conservation, the conference reproduced the same epistemic boundaries established by colonial conservation: Western epistemic conservation community acting as uncontested expert knowledge brokers in African conservation; African knowledge reduced to the role of local custom; and market value as conservation's justification. The dominance of the epistemic conservation community raises questions around whether the inclusion of a wider range of African actors and stakeholders, in the GVL and beyond, can actually enhance participation by Global South partners (Bäckstrand, 2006), particularly when it is able to produce African conservation subjects who speak the epistemic language. Efforts to decolonise conservation, indeed, to engage in conservation epistemic decolonisation, centring African voices and traditional ecological knowledges, would appear to remain wanting.

6.3. Contested authority in the Virunga National Park, DRC

Since 2002, the Virunga National Park in the DR Congo is managed not by the Congolese government through the Institut Congolais pour la Conservation de la Nature (ICCN), but by the Virunga Foundation, a London-registered NGO. Consequently, many of the themes discussed throughout this thesis can be found in the management regime of Virunga National Park: the dominance of Western conservation knowledge and practices; market-driven priorities; the power imbalance between NGO authority and customary authority, and access to forest



Figure 22. Virunga National Park. (VNP, 2024)

resources of local and indigenous communities. Returning to Foucault's discussion of the 'set of relations that unite the discursive practices that give rise to epistemological figures...and...formalised systems' (1972: 72) the Virunga Foundation represents the conservation episteme's power as creators of knowledge and also as creators of subjects who can wield that power. The Foundation's governing authority derives not from legal ownership of the forest, but from its position within this epistemic order. However, the authority it wields faces challenges from multiple scales: from transboundary governing institutions; from the DRC state itself; and from customary authority in the form of local park-adjacent communities.

6.3.1 The Virunga Foundation as an epistemic actor

The Virunga Foundation's long-term financial supporter is the European Commission (EC), which, believing the DRC state to be corrupt and inefficient (Marijnen, 2022), lobbied the Congolese government in 2002 to sign a public-private partnership (PPP) with African Conservation Fund (the original name of Virunga Foundation). The epistemic displacement (Voß, 2022) and marginalisation of the ICCN, of undermining the African state's knowledge forms and delegitimising its authority, saw the wholesale transfer of governance of park management and gorilla conservation to the NGO. The 2015 renegotiated PPP deal has extended Virunga Foundation's management of Virunga NP until 2040. Despite operating only in the Democratic Republic of Congo, according to the Virunga Foundation website (Virunga Foundation, 2023) the board comprises: Danish billionaire and oil tycoon Jan Bonde Nielsen (Chair); Belgian politician (and President of African Parks NGO) Francois Xavier de Donnea; British film director and producer Joanna Natasegara; Swedish academic and financier Paul Leander-Engström; and (white) South African businessman and current Chair of Kenya Airways, Michael Joseph. Joining them on the Virunga Board is current Chief Executive Officer of Arcus Foundation, a conservation and social justice NGO, and former CEO of IGCP, Annette Lanjouw (Dutch), which exemplifies the strength and dominance of epistemic community networks in global conservation community (Brockington & Scholfield, 2010). The sole black African member of the Board is Judge and Vice-President of the International Criminal Court, Dr. Antoine Kesia Mbe-Mindua. The founder and CEO of the Virunga Foundation, and head warden of Virunga National Park, Emmanuel de Merode, is the son of a Belgian prince and princess. Given Belgium's history in the Congo, a member of Belgian royalty managing DRC's largest national park embodies the literal continuity of colonial conservation authority, revealing how deeply the colonial episteme structures contemporary conservation.

Western knowledge production through international organisations like the Virunga Foundation creates policy debates that focus on disseminating and enacting Western science and values. In global environmental governance terms, this universalising of conservation knowledge then can legitimise Western NGOs like Virunga Foundation with the power to

pronounce and act, to be authoritative. The Western hegemony of scientific (conservation) information is embedded in structures of disciplinary, national and socio-economic power (Litfin, 1994), a power skewed towards an imbalance in favour of Western influence, often reflected at executive levels of conservation NGOs. The Virunga Foundation is simply deploying familiar mechanisms of access in managing Virunga National Park: Western conservation knowledge; international funding; global legitimacy and awareness; and crisis narratives. These access mechanisms saw governance of the national park as a public service essentially privatised. The public-private partnership the DRC government was pressured into signing with Virunga Foundation transformed state authority into a technology of governance within the conservation episteme, reshaping governance through knowledge practices, market logics, and technocratic expertise (Hodge & Greve 2019; Miller & Rose, 2008).

6.3.2 Competing claims to the Virunga forest

The reduced role of the Congolese state in Virunga National Park governance is a good example of a form of complex multilateralism, of a dispersal of power and authority, found in global environmental governance dynamics (O'Brien et al., 2000). The complex multilateralism in the GVL, competing epistemic claims to governance, sees the Virunga Foundation engaging with structures of governance and authority where the balance of power in the park is a fluctuating situation. The involvement of partnerships and networks of global and local, public and private actors in the actual governance of Virunga National Park sees the Congolese state reduced to simply one of those interest groups, an interest amongst many others, and a dispersal of authority away from the state.

Nominally, management of national parks falls under the authority of state governments, but one of the three protected areas in the transboundary gorilla-dwelling forests is now managed by a Western NGO. There are interesting contestations of executive authority here, between the Virunga Foundation and the ICCN, and between the Virunga Foundation and the GVTC. Indeed, the example of Virunga National Park management both confirms and challenges concepts of global environmental governance. In reclaiming control of territory from the IGCP via the GVTC institution, the Congolese state once again became the dominant force in the governance of Virunga NP, represented at all levels at the GVTC. But the state

then ceded back authority for Virunga NP to the Western epistemic conservation community from which it was originally reclaimed, this time in the form of the Virunga Foundation.

Far from forming partnerships with the Congolese state, a senior Congolese government official from the ICCN characterised the various NGOs managing all of DRC protected areas as running their parks separate from the ICCN:

*'Each organisation that had a co-management agreement with the DRC government was running its own business, their own protected area. Each was playing its own games in its own little corner. That includes Virunga Foundation.'*⁹³

The contestation of authority in the Virunga NP points to a dislocation in park management. The same ICCN executive continued:

*'In their discourses, they say it's a public private partnership and the ICCN are involved, but in reality, the ICCN doesn't seem to have a lot of influence on what happens in the Virunga area. It's really the Virunga Foundation, in particular, de Merode and his staff, that are calling the shots there.'*⁹⁴

Commenting on their previous research in and around the Virunga National Park, a European academic and researcher familiar with the area remarked on relations between the Congolese government and Virunga Foundation:

*'It's tense, because there are people in the ICCN that are not happy with the fact that Virunga Foundation is calling the shots (in the Virunga National Park). And I think you see this in this GVTC. It is very paradoxical, because that is something which involves the ICCN as key partner, but then the ICCN has no real say over the Virunga area.'*⁹⁵

And the Virunga Foundation does appear to have an antagonistic relationship with the GVTC. A senior representative of a donor body operating in the GVL highlighted the tension between the three organisations:

⁹³ ANON (Interview No. 49): 06/10/2022

⁹⁴ ANON (Interview No. 49): 06/10/2022

⁹⁵ ANON (Interview No. 67): 07/05/2022

*'The Congolese funding contribution (to the GVTC) was not appreciated by The Virunga Alliance, by de Merode... He felt very much like, you know, ICCN is taking our money, giving it to an organisation that isn't adding much value to us. And it is telling us what to do without engaging us. So that led to real tensions between GVTC and Virunga Alliance.'*⁹⁶

A senior GVTC executive, for his part, rejects the idea that Virunga Foundation, and not the ICCN, would be more appropriate in representing park conservation interests in the Collaboration:

*'Virunga is run on behalf of the ICCN. ICCN owns the park... I speak to the owners of the assets, of the parks.'*⁹⁷

Reports that the ICCN has little impact on the management of Virunga NP raises questions of governance and authority within the GVTC. The GVTC has a level of authority over transboundary conservation interventions across the Greater Virunga Landscape of some 12,000 km² (see figure 12). And within the GVTC geographical jurisdiction, the ICCN nominally manages over half of the territory through the 7,769 km² Virunga National Park, stretching from the northern to the southern boundary of the GVTC's transboundary jurisdiction. Consequently, the ICCN's only asset that it brings to the GVTC structures is Virunga NP, which is now run separately from the ICCN by a Western conservation NGO. And this NGO, from reports and interviews, does not appear to value the GVTC or transboundary conservation efforts.

6.3.3 Militarised conservation as episteme enforcement

Forms of militarised conservation in Virunga NP – green militarisation as a tool of boundary maintenance - involves restricting local access to resources and enforcing local laws through coercive means. This strategy of systematic epistemic violence serves to discipline local populations to conform to market logics, while, particularly in the Virunga National Park, drawing in Western donors through media representations of the park as the current centre

⁹⁶ ANON (Interview No. 18): 03/06/2022

⁹⁷ ANON (Interview No. 60): 06/08/2022

of the 'war for biodiversity' (Jones, 2021). Indeed, this approach to conservation serves to reframe nature and configure conservation spaces in ways that align with, and extend, capitalist modes of production, governance, authority, and global consumption (Brockington & Duffy, 2010). Research on the relationship between tourism and arms spending in developing world countries shows that arms export and military expenditures are both significantly correlated with international tourism indicators, which goes some way to convincing states to devote a larger share of spending to increasing security policies and apparatus (Nassani et al., 2017). At the same time, military skirmishes in the Volcanoes National Park between Rwandan security forces and Congolese rebel groups continue, which has led to increasingly militarised borders in the contiguous forest, though largely concealed from the international community for fear of repelling international visitors (Trogisch & Fletcher, 2020).

Issues of human rights abuses and violent oppression of local people in the name of globalised conservation interventions continue to surround the parks and park guards, particularly in the Virunga National Park committed by ICCN/Virunga Foundation staff. Park-adjacent communities in Rwanda and Uganda have been securitised by paramilitary state forces, encouraged to spy on and report their neighbours if suspected of illegal poaching within park boundaries. Trogisch & Fletcher (2020) go further still in revealing how the Rwandan government has exploited globalised gorilla conservation tourism to securitise the state, expanding state security forces across Rwandan society, where '...the official explanation of focusing security on high-end tourism generates an internationally accepted, and even appreciated, legitimisation of militarising Rwanda in the name of tourists' safety' (362). In response to a question about epistemic gorilla conservation interventions leading to violence in the region, a Western executive of a conservation NGO operating in the GVL simply exclaimed:

*'Hey, it's Africa!'*⁹⁸

The Virunga National Park, the oldest in Africa, was created in 1925 while the country was under Belgian colonial rule and similarly resulted in the forced displacement of the original

⁹⁸ ANON (Interview No. 29): 25/07/2022

inhabitants of the area, most of whom also lost access to their lands and livelihood (Marijnen & Verweijen, 2018). Reflecting colonial-era landscape administration, the Virunga Foundation, without Congolese representation on the Board, has been accused of (re)producing a militarised fortress conservation of protected area management in the Virunga National Park, which has led to allegations of serious human rights abuses by park staff against members of the surrounding local communities (Verweijen et al., 2022). A Batwa poacher/hunter anecdotally confirmed these reports:

*'If they (DRC park guards) catch us, they arrest us and beat us before they take us back to their park HQ.'*⁹⁹

In a recent episode, a group of Rwandan Batwa poachers, desperate for food for their families, reported how they were allegedly blackmailed by state security forces into traveling across the forest border into DRC in order to spy on anti-Rwanda rebel groups stationed in parts of the Virunga National Park:

*'It was not the first time we were sent, so it was usual. The army comes to talk to us, to tell us that they wanted some people to spy in the (DRC) Virunga forests... First of all, we didn't have a choice because we needed something to eat, so we had to accept. Afterwards, as payment, we received not much money and given a little food.'*¹⁰⁰

The group were caught by the Congolese park staff and allegedly beaten and refused food:

*'We couldn't tell anyone why we were sent, otherwise the Rwandan soldiers would come and kill us.'*¹⁰¹

The interviewees reported that one member of the group died of his injuries sustained at the hands of Virunga National Park guards. This violence was made possible by the reframing of hunters and forest-dwellers as 'poachers' within the episteme. Conservation discourse has constructed a moral narrative that has turned strategies to combat poaching into a metaphorical 'war' on poachers, discursive techniques that then legitimises or facilitates the normalisation of extreme state violence in the name of conservation (de Jong & Butt, 2023).

⁹⁹ ANON (Interview No. 5): 26/07/2022

¹⁰⁰ ANON (Interview No. 05): 26/07/2022

¹⁰¹ ANON (Interview No. 05): 26/07/2022

Across Uganda, DRC, and Rwanda, geopolitical threat narratives in conservation have legitimised state-sanctioned violence in the name of national security (Hujsmans, 2006). Disproportionately on the receiving end of these logics are often marginalised and dispossessed local communities (Marijnen & Verweijen, 2016) like the Batwa.

6.4 Protected areas - the zombie that refuses to die

One of the enduring legacies of conservation interventions imposed on African communities by European colonial forces is the establishment of protected areas to secure wildlife and biodiversity, often referred to as 'fortress conservation' (Brockington, 2002). This epistemic structure involves establishing hard boundaries around a piece of land and, in doing so, dispossessing local communities: 'Based on constructed hierarchies of racial superiority, colonial powers afforded themselves the authority to regulate international morality. They then used this self-afforded authority to justify their assertions of control over territory and people' (Jones, 2021: 30). As we saw in the previous chapters, protected areas are spaces where different actors – states, NGOs, market forces, conservation NGOs, international organisations – remake a territorial landscape (reterritorialisation) in a competition to assert their authority over resource management arrangements and resource access (Sikor & Lund, 2009). While management of protected areas serves to formalise property rights for state authority, they can also create new bundles of powers that determine who can access, and who is barred from, forest resources in practice, (Neimark et al., 2020; Ribot & Peluso, 2003). As ever, it is indigenous people and local communities that, despite potentially holding formal rights or customary authority for generations, find their access rights and ability to benefit from resources removed in the name of conservation (Brockington, 2004; Brockington et al., 2008; Neumann, 2015). As a colonial legacy, protected areas are deeply embedded in complex social, political and economic entanglements, which often reinforce existing power structures and inequalities (West et al., 2006).

6.4.1 Fortress conservation as epistemic structure

The history of the Virunga forests is no different. Each park has historical and contemporary colonial legacies of fortress conservation (Brockington, 2002; Carmody & Taylor, 2016; Hochleithner, 2017; Ildephonse et al, 2016). After the establishment of the contiguous

Virunga and Volcanoes parks, thousands of indigenous people lost their land rights and/or were forcibly evicted from the parks (De Bont, 2015, Inogwabini, 2014). For example, between 1930 and 1955, some 85,000 of the indigenous population were removed from the forest (Jackson, 2007). Indigenous Batwa communities were similarly evicted from the Volcanoes forest in Rwanda throughout the 1980s and 1990s when the park was formally gazetted, with little to no compensation or training in new skills. This marginalisation forced people from the evicted communities to jeopardise their safety by illegally re-entering the forest to support their subsistence living (Beswick, 2012). As a Rwandan Batwa elder discussed:

*'The government wanted to protect the park, but we didn't know what else could do. We had no choice but to keep using the forest to live. So, some of us were arrested over the years, some of us were shot dead while finding food to survive.'*¹⁰²

Similarly, the 1938 gazettement of land to create the Bwindi and Mgahinga reserves in Uganda introduced a state-sanctioned resource access regime that drastically reduced forest access to the Batwa, who had for centuries lived from the forest (Namara, 2006). In 1960, the Ugandan Wildlife Authority (UWA), began an official eviction programme of Batwa people from inside the reserves. Finally, as part of a European Commission-funded *Natural Forest Management and Conservation Project* (Parr, 2013), the establishment of the Mgahinga National Park in 1991 saw an estimated 130,000 indigenous Batwa forest-dwellers dispossessed and evicted from their forest homes, without compensation (Adams & Infield, 2003). The Batwa evictees were forced to abandon their hunter-gatherer tradition and into a transition to become sharecroppers, labourers, and tourist attractions (see below) in their new home on the forest borders (Mukusa, 2014; Ronald & Emmy, 2019). Discussing this traumatic period, a former Batwa inhabitant of the Mgahinga forest remembered how Western conservationists worked in collaboration with Ugandan security forces in creating the Mgahinga protected area:

*'(In 1990) the Ugandan government rangers arrived with guns, and white people were with them with clipboards, white conservation people. We were told to move out, and if we refused, we were beaten.'*¹⁰³

¹⁰² ANON (Interview No. 04): 10/07/2022

¹⁰³ ANON (Interview No. 69): 09/08/2022

Evidence would suggest that dynamics of fortress conservation in GVL conservation continue to be reproduced by independent national governments long after assuming management of the parks from European colonial powers. Suspected poachers found in the protected areas in Rwanda and Uganda continue to be arrested and jailed (Day, 2020). Authorities in the Virunga National Park ‘apprehend several thousands of people a year... Arrests and joint operations with the army sometimes involve the harsh treatment of citizens, and occasionally result in human rights violations’ (Verweijen et al., 2020: 5).

In interviews, however, some Western conservation NGO executives appear to reject the existence of contemporary fortress conservation logics, that local and indigenous communities continue to suffer as a consequence, and that these consequences are embedded in colonial conservation legacies. As one white American conservation executive explained:

‘I hate the term “fortress conservation”. I also hate the term “decolonisation”, too. I have African colleagues who say that “We have been independent for 80 years. We have our own governments who have chosen to retain those protected areas as a tool and chosen to create community consultations to work with indigenous communities. So don’t insult us by saying that “We’re just sucking up to our own colonial masters.” It’s shameful! If I were African, I’d be pissed off to hear that.’¹⁰⁴

Those same state authorities appear to have instead created an informal surveillance network in local communities, framing the encouragement to spy and inform on their neighbours as a form of reconciliation with forest authority and legitimacy. As interviewees from a park-adjacent communities explained:

‘We feel like we are participating in the management of the park, because if we see anyone enter the park to poach we will inform the authorities’.¹⁰⁵ ‘They know they (poachers) have the eyes and ears of the community on them.’¹⁰⁶

¹⁰⁴ ANON (Interview No. 29): 25/07/2022

¹⁰⁵ ANON (Interview No. 27): 30/06/2022

¹⁰⁶ ANON (Interview No. 10): 28/06/2022

Influenced by Foucault (1977, 1978, 1980), Stephen Gill (1995) has emphasised the extent to which surveillance strategies such as these have not only become a feature of global governance, but has in fact made global governance possible. While this new global system is a decentralised and, indeed, deterritorialised apparatus of distributed authority, it remains rooted in mechanisms for controlling (and disciplining) social and community conduct (Hardt & Negri, 2002). Local people remain excluded from accessing park resources in order to satisfy the demands of liberal capitalism. The episteme in which current traditional conservation remains appears to render exclusionary and marginalisation strategies rational and necessary. And, despite recent evidence to the contrary (Abas et al., 2022), imagining conservation *with* indigenous people in the GVL seems impossible, regardless of the historical echoes of eviction programmes by colonial forces in contemporary enforcement actions.

6.4.2 The commodification of alienation in the GVL

Foucault discusses the process of a fundamental epistemic shift, when one mode of thinking or production of knowledge is supplanted by another, a complete transformation of the understanding of logic itself (Cutrofello, 2003). This shift can be identified in the transformation of gorillas into tourism products: from animals as a part of nature to a charismatic fauna as a marketable commodity. As a result, local communities are forced to rethink and reconceptualise their forest relations through market categories that literally did not exist in the previous, pre-colonial epistemic framework.

While some local people benefit, this rendering of landscapes and the global consumption of nature can also be problematic (Brockington & Scholfield, 2010). Conservation that relies on funding from ecotourism and safaris like that in the GVL engages in the creation of a virtual world of East African tropical rainforests that Western tourists expect to find, and with its images of charismatic fauna like the mountain gorilla, virtualisms designed to encourage Western donor funding and visitors. But these ideas, discourses and values are of a global imaginary in which Africans who live and guard conservation areas are largely invisible (Garland, 2008), except when engaging in tourism-related activities i.e. the production of craft goods and services for the tourism market. And some of these services are deeply problematic.

An example of this epistemic colonisation is UWA offering, as a 'community conservation' tourist product, 'The Batwa Experience' and 'Batwa Trail'. The official website describes the Batwa people as having been 'pushed out of the forest where they started living miserable lives' (UWA, 2023). Of course, the Batwa people were, in fact, violently evicted from their



Figure 23: A tourist participates in the Batwa Trail, Uganda. (QENP, 2025)

forest homes by these same Ugandan state authorities throughout the 20th Century. But for \$100, the tourist can '...learn, as they (Batwa) guide you through the forest, dance, sing, and storytelling of their traditional ways...' (sic) (ibid) (figure 23). Meeting the requirements of tourists' virtual imaginations of Africa and African wildlife leads inevitably to shaping local communities into a source to produce more exploitative virtualisms. A British academic bemoans the exploitative nature of this form of extractive tourism:

*'The idea of a local community coming to dance for you as a tourist – that's part of that idealised African nature that the West thinks of, because that's what we see on TV.'*¹⁰⁷

Similarly, a local Rwandan tourist company offers a 'Live Like a King or Queen at Twin Lakes' experience (figure 24). This product offers tourists the chance to dress like indigenous tribal kings or queens, with members of the local community waiting on them. The 'experience' teaches the tourists traditional dancing and singing, with the new 'kings' learning how to play traditional drums and the new 'queens' how to weave traditional baskets (Beyond the Gorilla Experience, 2022). The same company also offers tourists the chance to choose a woman from a local village as his 'bride' and participate in a day-long 'authentic traditional wedding', a



Figures 24. Live Like a King or Queen at Twin lakes. (Beyond the Gorillas Experience, 2022)

¹⁰⁷ ANON (Interview No. 59): 16/03/2022

roleplay scenario that only omits the actual legal act of marriage (Beyond the Gorillas Experience, 2023). There is currently no option for a female tourist to choose a man to ‘marry’.

When staying in the GVL, more often than not ecotourists remain removed from the surrounding societies and landscapes, transported in modern jeeps from tourist lodges direct to their gorilla trekking ‘experiences’. Although many budget hotel options exist in Musanze, the administrative base of the park and the setting-off point of all gorilla trekking parties, prices for popular high-end lodges dotted throughout the tropical forest can exceed \$5,000 a night during peak times (Volcanoes National Park, 2024). There are also a variety of tourist services for sale as local people reshape their lives around ecotourist realities: the aforementioned community conservation tours; locally made crafts and produce; entertainment and dances performed by local indigenous communities; and a cooperative of porters that, for a \$10 minimum flat rate, will carry equipment and bags up the volcanoes for the tourist:

‘(We carry) cameras, water, snacks and food. And, for \$200, sometimes people.... if you have lots of money and don’t want to walk, we will carry people on a sort of bed up the mountain to meet the gorillas, and then back down.’¹⁰⁸ (figure 25)



Figure 25. Tourists being carried up a volcano to see mountain gorillas. (images kindly provided by the porters of Volcanoes National Park)

¹⁰⁸ ANON (Interview No. 52): 06/07/2022

Meanwhile, perhaps unsurprisingly, some conservation operatives have noticed a shift in how the local population views their gorilla neighbours, albeit gorillas that they are priced out of visiting. When asked how often local people can enter the Mgahinga National Park to visit the wildlife behind the park boundaries, a UWA official replied:

*'Not so much from our local communities. That is not common.'*¹⁰⁹

A Rwandan local hotel owner and eco-entrepreneur described the negative effect that this is having on local communities:

*'Right now, I feel like there is some resentment... because... very few local people are allowed in or can afford to enter the park to visit the animals.'*¹¹⁰

A Ugandan conservation practitioner puts it more bluntly:

*'How many have been afforded that treat to go see the gorillas, the thing that has upended their lives? UWA charges \$65 for a gorilla permit for local people, and \$200 in Rwanda. But few local people can afford that. So, there's alienation from them enjoying their nature. They expect local communities to participate in the conservation of a resource that they themselves cannot afford to enjoy.'*¹¹¹

The impossibility of articulating non-market values within the dominant episteme appears to have spread to local park-adjacent populations. Such is the alienation of local communities from their environment, an alienation that remains integral to protected area management, the dominant view in interviews reflects a reconceptualisation of their gorilla neighbours to nothing greater than simple monetaristic terms. Typical comments from local people in interviews include:

*'They attract tourists and bring in foreign currency.'*¹¹²

*'The gorillas are contributing to the socio-economic improvements of the community.'*¹¹³

¹⁰⁹ ANON (Interview No. 65): 12/08/2022

¹¹⁰ ANON (Interview No. 58): 17/08/2022

¹¹¹ ANON (Interview No. 42): 12/08/2022

¹¹² ANON (Interview No. 9): 28/06/2022

¹¹³ ANON (Interview No. 28): 30/06/2022 - PERSON 2

*'Some people are getting jobs because of the gorillas attracting tourists.'*¹¹⁴

While Western audiences are allowed to appreciate the intrinsic value of the mountain gorillas (Batavia & Nelson, 2017; Lanjouw, 2001), the value to local communities has been largely reshaped to one of financial exchange. However, addressing the revenue sharing scheme - where a percentage of income from gorilla tourism is returned to local communities for development and livelihood opportunities - a Ugandan conservation executive is even forthright about what the money represents:

*'Revenue sharing is not a compensation for their loss or their alienation. It is their right to have that money, to benefit from their lives being reshaped around conservation.'*¹¹⁵

Just as the process of 'nature production' in African parks (Neumann, 2003) by 19th Century colonial powers was concerned with making ecological reality conform to a Europeanised imagination, the contemporary conservationist mode of production in the conservation episteme insists that, at this intersection, reality changes to fit expectations, not the virtualism (Carrier, 1998).

6.5 Fortress conservation redux - the Volcanoes National Park expansion

As we have seen so far, the history of conservation across Africa reveals troubling patterns of evictions, reproducing colonial practices of stripping indigenous and local people of land rights and access, often violently. Customary authority has been so disenfranchised from participating in decision-making over communal assets and land appropriated by states, often at the behest of conservation NGOs, that some indigenous groups are demanding apologies for historic crimes from organisations like WWF (Forest People's Programme, 2021). In the GVL, evidence shows that historical and contemporary formations of global environmental governance continue to undermine the rights, livelihoods and lives of indigenous and local communities in Rwanda, DRC and Uganda. The political and embodied implications of

¹¹⁴ ANON (Interview No. 28): 30/06/2022 PERSON 6

¹¹⁵ ANON (Interview No. 42): 12/08/2022

protected areas continue to erase or devalue indigenous knowledge systems and alienate local people from their environment, enshrining state governments with the authority to commit violence in the name of conservation (Dressler et al., 2010). However, in words at least, discrimination against indigenous and local people in the name of conservation was directly addressed at APAC 2022. The conference centred, as a central theme, a recognition of the value of indigenous knowledge, prioritising the safeguarding of indigenous communities in conservation interventions. For example, the primary declaration in the ‘Kigali Call to Action for People and Nature’ (APAC, 2022) includes:

‘...a call for support to Africa’s Indigenous Peoples, local communities, women and youth, working in partnership with governments, civil society and private actors, to sustain the wisdom, traditions, scientific and traditional knowledge and customary approaches that will result in effective conservation and the long-term resilience of nature, culture, livelihoods and human well-being.’

The call continues for...:

‘An acknowledgment of past and ongoing injustices experienced when indigenous peoples and local communities have not been accorded their rights, roles, responsibilities and expectations in the pursuit of conservation goals, and for these injustices to be halted now and in the future.

Concurrently, however, the Rwandan government, hosts of APAC 2022, is engaged in a \$300 million plan to expand the Volcanoes National Park by 23%, or some 37.4km² (figure 26), in order to expand gorilla habitat for existing and new gorilla families, with a projected ‘15-20% increase in mountain gorilla viewing opportunities’ (AWF, 2022b). 27.8 hectares of this

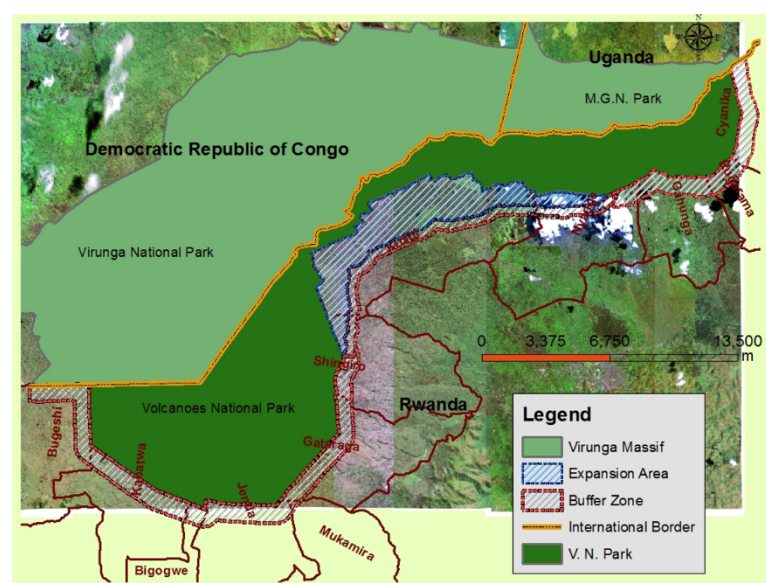


Figure 26. Map of proposed Volcanoes National Park expansion (LT&C, 2022)

land was purchased by the African Wildlife Foundation NGO and ‘handed over’ to the Rwandan government for a pilot expansion programme (AWF, 2018). The land was purchased from the Serena Hotel Group (Johnson, 2018), who had been leasing the land to small-scale farmers for crop cultivation.¹¹⁶ Belise Kariza, the former head of the RDB (Rwanda Development Board - Rwanda’s protected area authority), has been appointed AWF’s Rwanda Country Coordinator to head the project. Reflecting the capture of African elites in the conservation episteme, a senior (US) AWF executive said:

‘...AWF is committed to raising the money for the land purchases, and act as technical advisors, which is why we have Belise and a staff in Kigali on board – all Africans, who are proponents of conservation.’¹¹⁷

According to a Rwandan political executive involved in the expansion, the rest of the money will come from a mixture of global funding sources:

‘(Funding for the expansion) will come from a mix of NGOs, philanthropists, and public funding.’¹¹⁸

Operating within the dominant conservation paradigm, justification by the Rwandan government for the expansion is a financial one, increasing the number of gorillas and therefore potential revenue. To assist the expansion, the AWF, meanwhile, has employed a member of the Rwandan political elite cement political legitimacy, while drawing in global capital to fund the park expansion. Here again the epistemic conservation community is deploying its access mechanisms legitimised within the knowledge episteme, and once again with potentially devastating impacts on people and their livelihoods.

6.5.1 Colonial echoes and the ‘green smart villages’

The planned expansion will see local communities evicted from their home and from their land and livelihoods. According to a World Bank report, 17,000 people currently living and working in the proposed park expansion site and adjacent buffer zone will be evicted and relocated (World Bank, 2023). This number appears to include evictions from the village of

¹¹⁶ ANON (Interview No. 61): 28/09/2022

¹¹⁷ ANON (Interview No. 61): 28/09/2022

¹¹⁸ ANON (Interview No. 24): 09/11/2022

Kabatwa that is home to many of the Batwa community. The same epistemic conservation community that facilitated the historic eviction of Batwa from the Virunga forests throughout the 1980s and 1990s are now orchestrating another chapter of Batwa evictions. Here, at least, the conservation episteme, despite decades of rhetoric about community and indigenous inclusion, fundamentally maintains its exclusionary logic. However, according to an executive from the Rwanda Development Board (RDB – the state agency that manages protected areas), it is wrong to say that the families that currently live within the boundaries of the planned expansion are being evicted:

*'The families aren't being evicted, they're being relocated.'*¹¹⁹

The Rwandan government has promised that the destination of their relocation will be in improved housing conditions, land to own, and greater basic amenities. Another RDB executive, who declined to have their interview recorded, described the new dwellings as 'green smart villages', and that (*paraphrasing from notes taken at the interview*) a comprehensive inclusion programme is at the heart of the scheme:

*'(It's a) national programme of resettlement. Their land will be bought off them and they will be relocated into a new house in one of the new villages we're building, called a green smart village. The land will be cultivated for agricultural employment programmes for the new inhabitants, and the villages will come with infrastructure: hospitals, schools, water and electricity etc. This will happen over the next 10-15 years.'*¹²⁰

The same political executive insisted that extensive stakeholder consultations with affected communities revealed no resistance to the proposed relocation. The Rwandan Government requested support from the World Bank and AWF to implement a Volcanoes Community Resilience Project (VCRP) report, carried out through a number of government ministries and departments. The commission reported that public participation and community consultation during the pilot project were 'taken up as an integral part of social assessment process of the project. Consultation was used as a way to inform the community and stakeholders and collect their views and concerns about the planned project' (World Bank, 2023: 1). However,

¹¹⁹ ANON (Interview No. 48): 17/08/2022

¹²⁰ ANON (Interview No. 44): 18/06/2022

these consultations are being performed within the historical oppression of free or critical speech in Rwanda by the Kagame government that has ‘perpetuated a culture of intolerance of dissent’ (HRW, 2022; Reyntjens, 2011), and recurring state violence against criticism of the government and government policies (HRW, 2023). ‘All Rwandans are afraid of being arrested one day...Innocent people are no longer sure they are innocent’, (Tertsakian, 2011: 218). Therefore, it is perhaps unsurprising that, as a Rwandan RDB executive familiar with the expansion stated:

*‘Government studies and research and has found no negative impacts of the expansion, only positives’.*¹²¹

Indeed, across interviews and focus groups with 38 members of Volcanoes NP-adjacent communities, there was not a single critical word expressed towards the Rwandan government, conservation impacts, nor the planned park expansion. A former Rwandan conservation executive who is driving the park expansion, and who is linked to President Kagame’s family, confirmed the absence of a single protest from local people facing eviction during the consultation so far. It is worth printing the excerpt from this political executive in full:

‘The communities in Rwanda, especially those in the Volcanoes National Park area, they are presented with everything that the government has on offer for them. They have been consulted; all their questions have been answered sufficiently ... To my knowledge I’ve not heard any of the local communities say that they don’t want to leave. Actually, it’s more like, “Can you hurry up because we want to start enjoying the fruit of this expansion.” The other thing to understand is, the other reason people might want to leave, is that what is being offered is an improved option to their current situation – compensation for their land...there’s also a patriotic aspect to it, where their land is going to be used for this incredible project to benefit the country. There is a new home for people in the smart green village project, more livelihood opportunities and options for businesses and co-operatives, being exposed to different development partners, access to finance, access to business plans. All these facilities are going to be on offer for the people – they are going to benefit heavily from this expansion. So, since

¹²¹ ANON (Interview No. 57): 15/06/2022

*2018, they understand exactly what's going on. There has been no resistance that I know of.'*¹²²

The supposed benefits to the relocated communities appear to be questionable, though. Despite all the assurances from the Rwandan authorities, the Rwandan CEO of a local NGO operating in Volcanoes NP thinks there are still questions that need answers:

*'I have a question, and I don't have the answer. Will community members benefit more after expansion compared to how they were benefiting before? The people who are expanding the park, that's the question they should answer: how the communities will benefit, and are they benefiting more than they used to?'*¹²³

According to the May 2023 report by the Adaptation Fund on future climate resilience of the new 'green smart villages', the community resettlement proposal contains 'concerning' details about the livelihoods of relocated families: 'The proposed size of their replacement agriculture plots amounts to a reduction by 85% of their average current holdings... thereby requiring a seven-fold increase in productivity and revenue to retain income and sustenance at a comparable level. While currently precarious, the resettled lots will have no potential at all to sustain a household's livelihood... The proposal seems not to take into account the additional burden and vulnerability that is imposed on those households through the loss of so much of their livelihoods assets as a consequence of the resettlement.' (Lamberts, 2003: 3-7).

The apparent commitment to pluralism and multi-stakeholder dialogues appears to in fact have displaced debate about actual access to rural resources and the ability to contest state decisions. The consultation has been instead transformed into a technique for manufacturing consent, focusing attention on the single technical task of managing the relocation of people. The process is presented as consultative, but one that has depoliticised a political issue of rights to land and access to resources for local people, once again rendering eviction as a technical conservation issue (Li, 2007). The involvement of the AWF and World Bank funding lends the expansion and evictions global epistemic authority that further legitimises local

¹²² ANON (Interview No. 24): 09/11/2022

¹²³ ANON (Interview No. 16): 05/07/2022

dispossession. What questions can be asked of a consultation deployed within these epistemic boundaries? Constricted by operating within the episteme and operating in a coercive political atmosphere where dissent of government policy can be interpreted as unpatriotic or dissent against the government, there appears to be no vocabulary for legitimate opposition or resistance amongst impacted communities. The park expansion demonstrates how the conservation episteme can transform both physical and conceptual landscapes, transforming conservation into forms of epistemic violence against communities (Brunner, 2021). The episteme here is functioning as a sort of 'anti-politics machine', 'depoliticising everything it touches, everywhere whisking political realities out of sight, all the while performing, almost unnoticed, its own pre-eminently political operation of expanding bureaucratic state power' (Ferguson, 1994: xv).

6.6 Market logics and collaboration fragmentation

The increased importance of the economic value of conservation practices has been arguably at the centre of the states' support for the transboundary conservation programme. As one long-time local conservation practitioner explained:

*'The gorillas are important to all the countries...(although) Rwanda sees the gorillas as part of its economic growth and sells them as the image of the country. And it's making a lot of money from it.'*¹²⁴



Figure 27. Volcanoes National Park HQ. (photo author's own).

As a senior RDB executive confirmed, when discussing the 2009 decision to transfer authority for wildlife protection in Rwanda from the conservation ministry to the department responsible for development and enterprise:

*'We see conservation as an opportunity to be part of other sectors that boosts and harnesses the economy of Rwanda.'*¹²⁵

¹²⁴ ANON (Interview No. 11): 08/07/2022

¹²⁵ ANON (Interview No. 44): 18/06/2022

Hence, in addition to the ecological rationale of Western science for conservation, the major conservation discourse places an economic justification at its centre, in the form of ecotourism. Building tourism capacity was central to the pre-1991 gorilla conservation campaigns in Rwanda and Zaire/DRC (Rainer et al., 2003). Likewise, gorilla tourism was a primary focus for the IGCP, utilising an opportunity to strengthen regional collaboration through harmonised approaches as a funding mechanism and economic option for partner countries (Lanjouw et al., 2001). Western neoliberal economics generally promotes the privatisation of public services and the commodification of resources (Büscher et al., 2012). However, the tourism complex of Rwanda and Uganda has largely



Figure 28. Tourists at Volcanoes National Park HQ preparing to travel up a volcano to meet a gorilla. (Images author's own)

stayed in state hands, and the Virunga NP is managed by a third sector organisation in the Virunga Foundation NGO, and not a private corporation or business. But conservation in the GVL has understandably served to generate a much-needed revenue stream to the three governments, which acts to reduce the mountain gorillas to a commodified experience to be sold to wealthy tourists as part of an African nature constructed by Western imaginaries. During several visits to the Volcanoes National Park HQ in Musanze, it was noticeable that the tourists were almost exclusively white and either northern American or European (figure 28), each having paid \$1500 each to trek up one of the volcanoes to spend one hour within a few metres of a habituated gorilla family. 'The marketing of nature and nature protection, on the one hand, and a view of human nature and institutions as fundamentally economic, on the other hand, have permeated environmental theory, programs and popular environmental imagery. ...Nature has become an emporium, a commercial warehouse awaiting its brokers. Conservation theory now analogises nature to a stock market: we act to conserve nature because "wild nature" contains potentially useful "option values"' (Zerner, 2000: 4).

6.6.1 The commodification of nature

Garland (2008) argues that wildlife conservation in Africa is ‘foremost a productive process, a means of appropriating the value of African nature, and of transforming it into capital with the capacity to circulate and generate further value at the global level’ (52). Garland's insights came from an exploration of the hidden work of (black) Africans in the conservation sector. She observed how (white) Western interactions with wildlife could be turned into ‘PhDs, research grants, jobs with international NGOs and tourism companies, academic positions, gigs on the conservation lecture circuit, popular memoirs, starring roles in National Geographic specials’ (67). Or, for the more wealthy and liberal-minded, the opportunity to create a conservation NGO or philanthropic foundation that funds conservation spaces in the Global South.



Figure 29. *The Silverback Standard*. (IGCP, 2018)

Conservation NGOs at APAC 2022 captured ways in which Western institutions ‘bring the wealth of the North together with the experience, knowledge and stories of exotic wild places to generate support for their causes’ (Brockington & Scholfield, 2010: 553), incorporating nature and wildlife into a broader capitalist system by producing images and commodities whose circulation mediates relationships between people and between people and nature (Igoe et al., 2010). For example, the IGCP produces and disseminates a regular magazine for public consumption called *The Silverback Standard*

(figure 29), which comes complete with glossy pictures of charismatic mountain gorillas in their natural forest habitat, short interviews with park rangers in their uniforms, and updates on the success and challenges of the gorilla programme. This magazine is also disseminated across partner NGOs for use in fundraising strategies.

WWF runs an ‘Adopt a Gorilla’ campaign, encouraging donors to ‘help fund projects to work with local communities to monitor gorilla movement and reduce human-gorilla conflict’ (WWF, 2023). The adoption pack includes a baby gorilla teddy bear, photos of the gorillas in their mountain habitat, a glossy magazine similar to the *Silverback Standard*, and a gorilla video

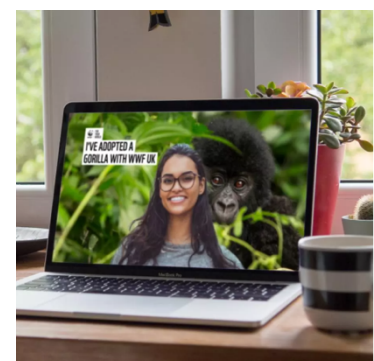


Figure 30. *Adopt a Gorilla* campaign. (WWF, 2024)

call background for online meetings (figure 30). A similar gorilla adoption scheme exists at the Dian Fossey Gorilla Fund (Dian Fossey, 2023).

These images and reporting tropes can help to legitimise particular visions of African landscapes and wildlife, and specific types of nature production. Conservation NGOs in the GVL have become complicit in creating the ‘virtualisms’ of Africa discussed earlier (Carrier, 1998), a virtual world of African tropical rainforests that Western donors and ecotourists *expect* to find. These virtualisms establish the necessary centrality of spectacle and representation to its operations. They present to Western audiences pre-constructed ideas or images of how African landscapes should be experienced, such as pristine landscapes, free-roaming animals, and ‘authentic’ local cultures that can be consumable via ecotourism – the ‘spectacularisation’ of conservation (Holme & Cavanagh, 2016). This production chain has created the conditions for capital to appropriate aspects or parts of wildlife and nature, thereby extending into nature the political economic forces that pose the greatest threat to it. The sale of gorilla trekking permits and nature safari products provide means of turning ecological wealth of the partner states into new commodities for exchange on the international market, mediated by mainly Western ecotourism and safari companies. These commodities are also available for the conservation NGOs involved in gorilla conservation to exploit as products from which to solicit donations, funding and support from philanthropic organisations, members of the general public, and government aid departments. By deploying access mechanisms of knowledge, authority and capital, the global epistemic conservation community are able to access Virunga forest benefits despite a lack of formal property titles, create new markets for conservation-associated industries, and transform nature and wildlife into transnational capital.

6.6.2 From collaboration to competition

However, market logics appear to be directly threatening the transboundary collaboration and, potentially, the welfare of the gorillas, shifting the transboundary collaboration towards an epistemic breakdown. Competition for tourist revenue between the partner states has led to diplomatic incidents (see previous chapter), and have facilitated attempts to dominate the

gorilla tourist market, particularly by Rwanda, at the expense of partners Uganda and DRC, efforts summed up by a Rwandan director of a local conservation NGO:

*'Rwanda has managed to brand the name of Volcanoes National Park at regional and global levels... one of the most popular tourist attractions in East Africa...most people don't think now of Uganda or, perhaps, even Congo when they think of gorillas now.'*¹²⁶

Similarly, a Western regional analyst sees Rwanda's commitment to gorilla conservation as an opportunity for it to establish itself as a primary tourist destination in the region:

*'I think Rwanda wants to outdo Uganda and DRC in terms of a tourist destination. And part of that is the conservation side of things. So that very much prioritises this image of Rwanda as a sort of eco-friendly top-end tourist destination. And that is reflected in the (unilateral) hiking up of the prices to go see the gorillas' (in 2007, from \$750 to \$1500).*¹²⁷

A local Rwandan conservation actor agrees, potentially hinting at Rwanda incorporating conservation into strategic efforts to dominate the region:

*'I also think it's important for Rwanda to beat, and be seen to beat, Uganda and DRC in the gorilla conservation game. Rwanda was blessed to have Dian Fossey come to Rwanda in the 1970s and 80s, so that already elevated Rwanda and the gorillas in the world's eye.'*¹²⁸

Competition between states over gorilla tourism serves to reinforce the contested nature of transboundary conservation in the GVL, as each state attempts to assert its legitimacy and authority over the shared resources. The various mechanisms of access being deployed by Rwanda – establishing a global reputation for gorilla conservation, unilaterally increasing its trekking permits to \$1500 to attract elite tourism and as a market weapon against its neighbours – suggests strategies to control access to those financial benefits, or at least reduce access benefits for its partners. A consequence of this competitiveness for tourist revenue is reshaping how park staff refer to the gorillas currently residing in their territory,

¹²⁶ ANON (Interview No. 21): 20/06/2022

¹²⁷ ANON (Interview No. 21): 20/06/2022

¹²⁸ ANON (Interview No. 11): 08/07/2022

using possessive pronouns of ‘ours’ and ‘theirs’, forgetting that the entire transboundary forest is the gorillas’ natural habitat (Trogisch & Fletcher, 2022). Despite the ambitions reflected in the creation of the GVTC, this rhetoric reflects how property claims are actually tied to assertions of state authority in the GVL. A conservation executive at the GVTC even described families of gorillas as belonging to states:

‘There is absolutely no doubt that the states see some groups as belonging to DRC, some to Rwanda and some to Uganda. Absolutely.’¹²⁹

States here are continuing to engage in complex processes of institutional bricolage to extend their authority over resource access, piecing together new arrangements that blend the informal with the formal (Cleaver & de Koning, 2015): securing notional, unofficial authority over gorilla communities, while engaging in formal transboundary institutional collaborations. However, an IGCP executive fears the consequences of this sense of property and competition emerging in the new transboundary institution:

‘Countries might feel like they own them because they have habituated them, they spent resources on monitoring and caring for them. But gorillas move about, cross borders. So, when you start hearing “our” gorillas, the next logical step might be to fence the borders so the gorillas can’t leave one territory. The whole Massif is their home.’¹³⁰

Framing the gorillas as a commodity or property, property belonging wholly to the individual partner state in which the gorilla community temporarily resides, certainly leaves attempts to manage the transboundary GVL as one single ecosystem in question. The same IGCP executive also fears for the potential of over-exploitation of the gorillas:

‘When you start looking at natural resources as a cash cow, an income-generator, an asset for economic growth, then there is a temptation to try to maximise revenue, and overlook protective guidelines, international standards, in place to regulate how many tourists can visit per day, for instance... I know there are already people asking why these limits are in place in the parks... This would be a massive detriment to the gorillas. For start, you’re ignoring their rights – we’re interfering with their lives. After

¹²⁹ ANON (Interview No. 60): 06/08/2022

¹³⁰ ANON (Interview No. 42): 12/08/2022

*habituating them, now you want to exploit them more per day, in order to get more cash?*¹³¹

The reframing of the gorillas as commodities from which to generate revenue exemplifies the marketisation turn in GVL conservation, (re)shaping biodiversity protection efforts as ‘cash cows’. By prioritising financial success over ecological indicators, the danger is that the very resources that conservation aims to protect is potentially undermined (Büscher et al., 2012).

6.7 Conclusion

The fragmenting of the collaboration over political and economic tensions detailed in this and the previous chapter reveals what Foucault would identify as the limits of epistemic coherence between discourse and reality, where validity claims are inevitably undermined (D’Cruz, 2024). States referring to ‘our gorillas’, creating political tensions around natural transboundary gorilla movement, reveals the tension between the episteme’s market logic and ecological reality. Li (2007) discussed how conservation interventions are ‘rendered technical’ by the epistemic conservation community, that ‘extracting from the messiness of the social world, with all the processes that run through it, a set of relations that can be formulated as a diagram in which problem (a) plus intervention (b) will produce (c), a beneficial result’ (265). As Foucault recognised, reality is vastly more complex than the language deployed (Canguilhem, 1978), and in the GVL the ecological, social and political complexities are necessarily exceeding what the conservation episteme, with its anchor in market-led logics, can capture. Indeed, Foucault would identify that the epistemic tensions that have arisen in the gorilla conservation regime reflect not correctable errors, but the fundamental ‘discontinuity’ between key-conversation and logical-social realities that it can manage (Kelly, 2019). In answering the research question ‘*What are the contemporary impacts of postcolonial conservation strategies in the GVL, and how do their internal contradictions point towards potential epistemic rupture?*’, the chapter reveals that tensions inherent in ecotourism are negatively impacting local and indigenous communities, the transboundary collaboration and, ultimately, the gorilla’s forested home. Each solution

¹³¹ ANON (Interview No. 42): 12/08/2022

proposed in the mountain gorilla conservation intervention appears to create new problems within the epistemic frame.

The epistemic conservation community continues to replicate colonial legacies that shape contemporary conservation in the GVL, reshaping the lives of local and indigenous communities. The reinforcement of protected areas has led to violent evictions and the continued marginalisation of indigenous Batwa people. Members of local communities, meanwhile, are forced to reshape their access mechanisms to benefit from forest resources in a number of ways. These mechanisms range from accessing the revenue-sharing scheme to fund livelihood projects or infrastructure programmes, to seeking insecure labour in the surrounding tourism businesses that services the gorilla conservation industry. This has the intent of extending capitalism into biodiversity conservation, bypassing potential alternative conservation regimes such as indigenous knowledge and practices, or attempts to secure funding to imagine nature for its intrinsic value. To local people in park-adjacent communities, these dynamics are demonstrating what Marx described as capitalism alienating people from their environment 'in ways where ecological connections were no longer evident to them' (Brockington et al., 2008: 197). All of which leads to the question Wondirad, Tolkach and King pose about the role of the epistemic conservation community operating in and delivering forms of conservation in the Global South: are they 'patrons of sustainability, or neocolonial agents?' (Wondirad et al, 2020).

State authority, legitimacy and accountability over GVL property is being significantly challenged once again in DRC. The redistribution of Virunga National Park management to the Virunga Foundation NGO reflects a tool of neoliberal political economy: a public-private partnership. The arrangement itself is bound in key features of postcolonial conservation logics. Gorilla conservation in the GVL appears to recreate a form of Western leadership operating in Africa that echoes paternalistic, colonial-era governance over African natural resources by foreign 'experts' (Garland, 2008), and a dispersal of governance away from local African control, concentrating decision-making power and authority in the hands of those outside the lived realities of African communities impacted by conservation policies (Peluso & Watts, 2001). Amidst reports of human rights abuses committed on local people by Virunga National Park guards, this particular management arrangement raises serious questions

about the lack of accountability of the governing regime in the park, and the corresponding inability to monitor its guards (Marijen, 2022). At the same time, rebel groups in the Virunga forest are reported to be freely engaged in illicit resource trade to fund their activities while the tiny gorilla-dwelling Mikenko section is well-guarded, further challenging the authority and legitimacy of the Virunga Foundation in its ability to manage the protected area.

Furthermore, these new governing arrangements have also produced contestations of authority between the ICCN and Virunga Foundation and has reshaped transboundary relations between the Congolese state and the GVTC. What was an institution empowered to harmonise transboundary conservation of the forests as a single ecosystem appears no longer to have any influence in the Virunga forests, to the detriment of critical cross-border security infrastructure. On the other hand, the chapter shows how the authority and power of the Rwandan state is being reinforced under the guise of securing the state for ecotourist activity. State authority is being extended further still into newer border territories, communities, and resources through the Volcanoes National Park expansion. The intersection of postcolonial legacies and contemporary conservation within the conservation episteme have produced new forms of dispossession and repression, exposing conservation as an ongoing, negotiated process of deeply political decisions. The expansion of territorialisation processes is creating a new round of exclusions and displacements of local communities, with tens of thousands of people losing their homes and livelihoods.

The driving force at the heart of these tensions inherent in the episteme is conferences like APAC 2022, spaces that serve as pivotal sites for producing, legitimising and disseminating global scientific conservation knowledge, instrumental in reinforcing these Western epistemic modes of conservation across the African continent (Betsill & Corell, 2001; Moletsane, 2015). Discursive practices at APAC 2022 displayed in full Foucault's 'lateral relations' in the episteme. Dominant economic, conservation and governing epistemologies are supporting and shaping each other, deploying its power by insisting on new means of control, coercion, constraint and domination of human populations to achieve ecological ends. Challenges by local communities, the increasing irrelevance of the GVTC, the breakdown of conservation relations and the deleterious impact on Virunga biodiversity all reveal potential ruptures in the episteme, where discursive practices of the epistemic conservation

community no longer fit the reality of gorilla conservation in the GVL. Political and economic tensions detailed in this and the previous chapter reveals what Foucault would identify as the limits of epistemic coherence between discourse and reality. In this limit, validity claims are inevitably undermined (D'Cruz, 2024), knowledge is fundamentally discontinuous with extra-discursive reality, and, as the local and indigenous communities in the GVL can attest, 'all human life bears witness to the effects of this mismatch' (329).

Chapter 7 Conclusion & discussion

7.1 Introduction

My research is inspired by the desire to address two issues critical to the future sustainability of ecosystem conservation: biodiversity degradation, and the security of the human population who are immediately impacted by global biodiversity conservation interventions. The introduction to this thesis discusses how the conservation of mountain gorillas, and of their (transboundary) tropical forest habitat that stretches across colonial borders of Rwanda, Uganda and DRC, centres the intersection of these twin issues. The second chapter constructed a political ecology theoretical framework through which to engage with the themes that emerged from the research data, with a particular emphasis on feminist and poststructuralist political ecology. Broad theories of authority and resource access mechanisms were located within postcolonial legacies. Introducing Foucault's episteme as a device of knowledge domination introduces the novel concept of the how the epistemic conservation community in the GVL deployed access mechanisms of authority and knowledge to reshape landscapes towards political ends. Concepts of territorialisation and institutional bricolage within conservation landscapes revealed how Western political economy and transboundary governance became entangled with African and Global South conservation interventions. Within this broad decolonial political ecology lens, the following empirical chapters brought a number of concepts into engagement with political, social, economic and ecological themes and concerns that emerged from fieldwork data and grey literature analysis. This conclusion chapter presents a summary of key findings that have emerged across the thesis, before revisiting and synthesising the research questions against those findings. Next, the conclusion discusses broader contributions that the thesis makes, from theoretical and methodological impacts to empirical and policy implications. The chapter concludes by drawing on potential limitations of the study, challenges faced, and potential issues of reliability, before discussing recommendations for future research.

7.2 Summary of findings

Drawing on themes and issues uncovered in this research on the gorilla conservation programme in the Greater Virunga Landscape, this thesis reveals that conservation in the

Global South is far from a neutral, technical intervention, but is inherently political and produces political, social and economic outcomes, as well as ecological. Furthermore, the thesis reveals that 1) Power and authority in conservation is shifting, plural, diffused and contested by multiple stakeholders across multiple scales; 2) the epistemic conservation community deploys certain access mechanisms in order to benefit from forest resources, regardless of formal property claims; 3) the success of transboundary conservation interventions depends almost exclusively on broader geopolitical relations, and 4) the political economy of conservation in the Global South continues to reproduce colonial-era outcomes, with devastating impacts on local and indigenous communities.

7.2.1 Shifting and diffused authority and power

Authority and power in GVL conservation remains complex and negotiated. The informal transboundary programme created and guided by the epistemic conservation community throughout the 1990s challenged notions of state sovereignty by largely ignoring borders during security patrols and knowledge exchanges. The evolution of transboundary identities rooted in conservation labour further challenged notions of nationality and national identity among park staff, especially acute during a period of violent conflict between those same states. In 2018, authority for conservation decisions and forest activity was transferred back to the states via the Greater Virunga Transboundary Collaboration (GVTC), the post-conflict formalised tristate institution legally empowered to harmonise conservation policies across partner states. While reclaiming conservation authority from the epistemic conservation community, states also saw their sovereignty over forest resources challenged by obligations spelled out in the GVTC Treaty to cede some authority and access to the forest to the transboundary institution. Tensions over management authority of the Virunga National Park also persist. There appear to be conflict over access to and conservation authority in the Virunga National Park between The Virunga Foundation, the GVTC, and the Congolese state agency responsible for managing protected areas in the DRC, with the Western managers of the park underrepresented at, and seemingly antagonistic towards, the GVTC. These executive-level institutions in turn continue to be challenged by customary authority of indigenous and local communities. People from park-adjacent communities continue to collect illicit forest resources despite state law, collecting meat, bamboo, rainwater and

medicinal plants for livelihood or subsistence living purposes. The indigenous Batwa community, meanwhile, present a continuous challenge to state authority via sympathy, attention from and calls to action by the global community for their continued discrimination and marginalisation as a result of conservation interventions. Indigenous Batwa communities in Uganda are even challenging the government in court over their eviction and exclusion from their forest homes when the Mgahinga forest was gazetted in 1991.

7.2.2 Mechanisms of access deployed by the epistemic conservation community

The epistemic conservation community deployed a number of mechanisms to access the Virunga forests and build the transboundary gorilla conservation intervention. First, authority of the epistemic conservation community, built on Western scientific knowledge, conservation 'expertise' and global legitimacy, was invoked to support decisions about GVL conservation spaces. From this position of authority, the epistemic community framed gorilla conservation in 'crisis' terms, operationalising its access to global finance within this crisis narrative to fund conservation costs like ranger wages, advanced monitoring technology, and establish government lobbying positions. The transboundary nature of the intervention was achieved by extending the epistemic community to include park staff from all partner states, engineering social relations to enhance the centrality of gorilla conservation regardless of borders among local actors. The production of scientific data and artefacts – gorilla healthcare, tracking and location, conservation best practice, population trends reports - produced by this expanded epistemic conservation community was a key strategy in upholding regional commitments and legitimacy in the region. Through astute political manoeuvring, framing conservation as an 'apolitical' scientific necessity transcending divisions and successfully navigated the machinery of government by insinuating themselves into bureaucratic positions, the IGCP positioned itself as a trusted partner in the region. Trilateral cooperation and mutual trust built by the IGCP reflected the technical characteristics of potential cooperation that can be derived from this form of ecological interdependency. So, the epistemic conservation community achieved its ecological aims by: i) building coalitions through trust; ii) being a/political; iii) creating artefacts of influence and persuasion; and iv) building and deploying global moral authority. The conservation NGOs at the heart of the GVL

epistemic conservation community was then able to disseminate news and awareness about its work in the GVL in Western media to generate publicity and income from Western donors, philanthropists, members and governments. Thus, the epistemic conservation community was able to access and benefit from Virunga forest resources, despite a lack of formal property rights.

7.2.3 The evolution of transboundary conservation

The introduction of transboundary practices in gorilla conservation reflected the recent shift towards landscape-level management in Western conservation discourses. Throughout the 1990s, the IGCP facilitated the informal collaboration between national park staff working in the three contiguous forests during civil conflict, genocide, and two devastating regional conflicts. This period was characterised by grassroots initiatives in the form of regular regional meetings and joint/coordinated patrols, with funding arriving from international bodies via the epistemic conservation community. These informal networks laid the foundations for the formal collaboration between the partner states once the regional conflict formally ended, culminating in the creation of the intergovernmental GVTG in 2015. This evolution was driven by a number of factors. The transboundary initiative was informed by the ecological interdependence of the GVL ecosystem, and an acknowledgement that the mountain gorillas roamed the whole contiguous forest, crossing colonial borders. This acknowledgement in turn is recognised in the 2016 UN resolution that 'Nature knows no boundaries', a resolution that encouraged '...Member States... to emphasise the importance of protecting vulnerable ecosystems and their connectivity, to contribute to the development and adoption of approaches and initiatives for transboundary cooperation... for the conservation, restoration and sustainable use of biodiversity' (UN General Assembly, para 7). This demanded effective, joined up protection and conservation measures, involving the cooperation of all three states. The IGCP, as an independent and neutral actor in the region, was able to leverage global attention of the plight of the gorillas, as well as deliver a promise to the partner states of increased revenue through gorilla tourism. However, tensions remain in GVL transboundary conservation management when navigating issues of state sovereignty and competing interests. The logic of capitalist competition found in ecotourism has inadvertently fostered competition in gorilla tourism between partner states, undermining collaborative efforts of

the previous two decades. More broadly, fortunes of the transboundary conservation intervention in the Virunga forests appear to rely almost exclusively on geopolitical relations between Rwanda, Uganda and DRC. This is due to conservation authority at the GVTC lying in the hands of political operatives from partner state governments, rather than with conservationists. Regional political tensions between Uganda and Rwanda, or DRC and Rwanda, are reproduced within the GVTC management structure, crippling an institution that relies on collaboration for its operational existence. It would appear that this roadblock has recently been recognised within the gorilla conservation discourse, with moves planned to transfer authority for transboundary conservation back to the politically 'neutral' IGCP.

7.2.4 Epistemic reproduction of colonial conservation

The gorilla conservation programme in the GVL continues to reproduce features of conservation that first emerged when colonial powers began erecting barriers around stretches of land, evicting people who lived within the newly gazetted area, and enforcing these laws with state force. European colonial ideas about wildlife resources needing protection from indigenous and local communities still shapes the GVL gorilla conservation intervention. The epistemic conservation community promotes the same fortress conservation policies that dominate the three protected areas of the landscape, but with a contemporary turn to capitalist logics of ecotourism as a dominant legitimising force. Market-led policies deployed by the epistemic conservation community have seen the gorillas and their forest habitat transformed into commodities to be exploited and exchanged on the global market, mediated by mainly global/Western ecotourism and safari companies. Wrapped in this exploitation is the reinforcement of racial and cultural caricatures in ecotourist products sold to Western audiences, perpetuating colonial-era stereotypes about African nature and people.

Meanwhile, tens of thousands of indigenous Batwa people have been evicted from their forest homes in the name of conservation and raising tourism revenue. These communities continue to be marginalised and discriminated against in their new homes in park-adjacent communities. There has also been an alleged catalogue of human rights abuses committed by park guards against local people caught or suspected of entering Virunga National Park in

DRC to access forest resources, guards employed by a Western conservation NGO. This NGO is based in London and owned by a Belgian prince. The planned expansion of Volcanoes National Park is a timely reminder of this tension, where global conservation goals and capitalist accumulation have the potential to degrade further local lives and livelihoods. Similarly, the deployment of knowledge and authority by the epistemic conservation community has led to the marginalisation of local and indigenous knowledge and traditions. Changes in the access regime favours those with capital over local communities with tradition or customary authority and rights. Despite having lived in and cared for the Virunga forests for generations, the Batwa people now remain isolated from their forest livelihood and spiritual traditions, while gorilla conservation parameters have also led to a disconnect between local people and their nature. Despite a revenue-sharing scheme designed to distribute a percentage of gorilla tourism revenue to park-adjacent communities, the programme has led to an uneven distribution of benefits, and in many cases an alienation from nature of local communities. And forest access charges are such that people from rich countries on the other side of the world have more opportunities to enter the Virunga forests than local African people living next door to them.

While the 30% by 2030 UN rewilding programme is necessary and urgent, serious attention needs to be given to the hidden discriminatory, violent and undermining outcomes that Global South conservation can cause. The case study of gorilla conservation in the GVL demonstrates this; while capitalistic approaches are the dominant regime of the epistemic conservation community, they often fail to address underlying social and economic issues. Instead, they have the potential to reinforce inequalities and marginalisation which, together with the potential of over-exploitation of forest biodiversity caused by the competition between states to maximise capital accumulation, could ultimately undermine long-term conservation goals. Despite the remarks from the WWF executive about African states now owning their own conservation, the epistemic conservation community in the GVL need to adopt decolonial approaches to biodiversity conservation, centring local voices and indigenous knowledge, and recognising the rights and contribution of the Batwa people in the region. The GVL intervention is burdened by institutional path dependencies that were established under European colonial rule and continue to be so in the post-independence era. Colonialism can be understood not as history but as a process that reproduces capitalist

relations, and gorilla conservation in the GVL remains in the colonial conservation episteme that began in the 19th Century. In the 21st Century, white people from the Northern hemisphere are once again controlling what African people can and can't do with their land, lives and livelihoods.

7.3 Answering the research question

1. How did 'apolitical' epistemic communities reshape the Greater Virunga Landscape frontier, influence state authority and transform resource access in a conflict arena? The most important aspect of the answer for the first research question was the neutrality and independence that the epistemic conservation community maintained in the GVL throughout the 1990s. This allowed the IGCP NGO to leverage the trust it had established with partner state governments into facilitating a form of cross-border cooperation between staff of the three continuous national parks, bypassing formal state channels, even through periods of immense geopolitical violent conflict. Through the IGCP coalition, the epistemic conservation community leveraged global scientific expertise, funding, capacity, and awareness to include GVL park staff and institutions in the community. The epistemic community introduced a new conservation paradigm, influencing state authority and policy, and transformed resource access in the region. Access was reshaped by the epistemic community promoting ecotourism to state governments, the consequences of which (gazetting land, evictions and expanded security) challenged customary authority and restricted local access in favour of conservation priorities. So, despite delivering hugely political outcomes, the epistemic conservation community in the GVL was able to maintain an 'apolitical' position through offering technical solutions to gorilla conservation that promised economic benefits to state governments.

2. How has the escalation and formalisation of collaboration in biodiversity conservation across scale shaped, and been shaped by, authority, access, and political cooperation in the Greater Virunga Landscape? The collaboration was, and continues to be to a large extent, shaped by global conservation discourses and scientific paradigms. The global epistemic conservation community in the GVL worked to escalate collaboration once peace between the partner states was established in 2003. The formalisation of the collaboration led to the GVTC, which reshaped governance structures in the GVL, and also extended state authority

further into remote border areas and into park-adjacent communities. The collaboration treaties and ministerial agreements created new forms of transboundary authority which challenged traditional authority of state sovereignty over resources and land (and people). These treaties also attempted to facilitate a greater harmonisation of conservation policies across borders, impacting government structures in the shape of protected area authorities. However, transboundary authority has been, and continues to be, challenged when confronted by competing national interests and geopolitical tensions.

3. What are the contemporary impacts of postcolonial conservation strategies in the GVL, and how do their internal contradictions point towards potential epistemic rupture? Colonial legacies continue to cast long shadows over conservation in the GVL, and the tensions at its heart threaten the lives and livelihoods of local communities, the transboundary collaboration, and even the forest homes of the gorillas themselves. Market-led conservation maintains a centrality to Western conservation policies, to which local African governments must adhere in order to access international funds and technical expertise. But the commodification of the gorillas and their forest homes has transformed collaborative conservation into competitive rivalry, leading to diplomatic conflict and forest degradation, threatening transboundary attempts to manage the singular ecosystem. This competition is providing an existential threat the GVTC institution and the collaboration more broadly, with states squabbling over the movement and 'ownership' of gorilla communities and unilaterally raising trekking permit prices. The collaboration is weakened further still as unrelated geopolitical tensions and military skirmishes between partner states threatens interstate political relations at the GVTC. Diminishing levels of trust between partner states and the breakdown of joint or coordinated security patrols has seen a corresponding rise in cross-border poaching and wildlife smuggling, threatening the forest's biodiversity.

Furthermore, market-based conservation has reshaped local economies, replacing subsistence livelihoods and/or economic use of forest resources with seasonal and insecure employment. Revenue-sharing gorilla tourism revenue does not appear to be compensating local communities for the historic losses of livelihoods. Illegal poaching and illicit resource use continues to threaten the forests as a result. The capture of African elites by the epistemic conservation community ensures that alternative knowledges that might address these

challenges are sidelined and that Western epistemic conservation knowledge remains dominant. The intersection of biodiversity commodification, elite African capture and community evictions sponsored by the epistemic conservation community is crystalised in the planned expansion of Rwanda's Volcanoes National Park, where the AWF is funding and coordinating a landgrab by the state to increase gorilla tourism revenue, and in the process evict thousands of local people. Postcolonial power imbalances that exist in the GVL are reinforced by these global funding mechanisms and decision-making. Competitive rivalry, a vulnerability to geopolitical tensions, the embedded primacy of resource sovereignty, the marginalisation of indigenous knowledge, an increase in illicit poaching and resource use, and new forms of discrimination against local communities are the result of contemporary epistemic tensions that threaten to rupture the decades old collaboration that has been so ecologically successful.

4. To what extent has the transboundary project catalysed opportunities for promoting regional cooperation and peace? Moving onto the broader research questions of how, if at all, ecological interdependence and cooperation in the GVL created avenues for peacebuilding, the project *did* facilitate ongoing cooperation between staff from partner states, demonstrating the potential, at least at the local level, of forms of peacebuilding. Despite the regional violent conflict, friendships were formed between ordinary people from the warring countries. Further on in the evolution of the collaboration, the project also created platforms for dialogue at various levels of governance on the GVTC, from park level to ministerial - though the current lack of ministerial meetings is telling. The GVTC has mediated interstate disputes between partner states, disputes that had the potential to escalate into major diplomatic incidents. The GVTC platform has facilitated necessary diplomatic engagement in this respect, although these interventions were limited to conservation incidents within the GVTC jurisdiction. The collaboration has also encouraged information sharing and coordinated border patrols between the partner states, although, again, multistate patrols appear to be a thing of the past in light of current geopolitical tensions. The broad conclusion must be that collaboration is shaped almost exclusively by geopolitical relations at any given time, so much so that the Summit level of the GVTC governance structure, the level at which Heads of State meet to discuss the Collaboration, has never been in operation and is now being removed permanently. Sadly, on evidence

presented, conservation cooperation has not noticeably translated into broader political cooperation between the partner states.

5. What lessons can be learned from the case study that can positively impact peacebuilding and conservation discourses? What lessons for broader conservation and environmental peacebuilding approaches can be learned from the lifespan of the GVL collaboration? Implementing conservation and peacebuilding initiatives requires careful thought and context-specific approaches. Despite current geopolitical tensions negatively impacting the collaboration, cross-border conservation initiatives can provide neutral ground for cooperation, even in heavily conflicted areas. The ongoing presence of a neutral, independent third party is critical; it is difficult to imagine how a transboundary gorilla protection programme would have succeeded without the IGCP's presence as a neutral actor. Long-term engagement and relationship-building underpins this success while depoliticising conservation issues can facilitate cooperation in politically sensitive arenas. Similarly, building trust through technical cooperation can lay the groundwork for broader political collaboration, although a cautious note emerged from chapter 5: that escalating conservation authority to the political level can sometimes lead to the degradation of the biodiversity that the initial project was set up to protect. Balancing concerns of state sovereignty, the welfare of local communities and transboundary management is crucial for success, and any legal treaties or agreements between partner states needs to be clear in translating and addressing these concerns. Formal institutions can play important roles in mediating interstate relations, though, as discussed above, issues rarely outside the realm of conservation concerns.

7.4 Contributions of the research

This research makes contributions to broader academia and knowledge in a number of ways. Empirically, data collected from this number of participants, across such a geographical range, and accessing multiscalar levels of authority, reflects the most in-depth research study of the GVL as a conservation landscape. Its originality lies in its unique ecosystem-wide political analysis across multi-decade lifetime of the whole regional collaboration, and across scales of politics, across social groups, and across time. This research presents an in-depth case study of the history and contemporary character of the ecologically successful efforts to prevent

the extinction of the mountain gorillas. It centres the impacts of the contestation of authority over resource access on conservation dynamics and local communities in the Virunga forests, revealing how cross-border collaboration can be deployed in conservation governance in a conflict-affected region. The thesis reveals how maintaining conservation as a technical pursuit can achieve conservation aims, and how the politicisation of conservation, while securing greater executive support, can in fact be detrimental to conservation outcomes in a transboundary context. Similarly, the research is built on a methodologic approach to studying multiscalar governance arrangements, with themes emerging from interviews conducted with participants drawn a range of sources, from global conservation executives and partner state political elites to national park rangers and members of local and indigenous communities. Furthermore, the study has provided a platform for these views, narratives, and struggles of local people and of the ordinary staff of national parks across the decades, allowing a richer story, in greater detail, of the impacts of the GVL conservation intervention.

Theoretically, the case study advances political ecology in novel ways. First, the analysis identifies a deployment of epistemic authority as a form of power that operates through knowledge production rather than resource control or property rights. The epistemic conservation community in the GVL so successfully deployed this authority that it reshaped the landscape in multiple ways: renegotiated national identity among park rangers; turned the gorillas and their forest homes into commodities; reconfigured the relationship of local and indigenous communities with the forest; and altered governing arrangements and state relationships across the three national parks. This form of epistemic authority as an analytical tool in understanding socio-ecological relations helps uncover how actors can maintain levels of dominance without formal resource or land ownership. In fact, the analysis performs vital work in 'unearthing' the buried foundations of knowledge in Foucault's 'archaeology', tracing the epistemic continuities from colonial and contemporary conservation in the conservation episteme. The thesis also challenges how political ecology defines success within the episteme. The conservation intervention by the epistemic conservation community in the GVL has been hailed an ecological success in prevents the extinction of the mountain gorillas and growing their numbers. But this research highlights how ecological success can simultaneously perpetrate violence and marginalisation as political and social outcomes, questioning the criteria of success in conservation. More broadly, as the third research

question demonstrated, framing GVL conservation through the episteme has revealed epistemic tensions that, unless addressed, could prove fatal to the collaboration.

Second, the epistemic framing advanced Ribot and Peluso's Theory of Access (2003). In applying the theory of access to transboundary conservation, the thesis shows how epistemic conservation communities create new forms of access and control that transcends state boundaries. This is a reflection of how, within conservation dynamics, authority is multipolar and diffused, with multiple centres of authority in the GVL (state, customary, global, local, and even competing states) seeking to gain from environmental benefits. The GVL case study reflects differing and often contesting sites of authority seeking and deploying its legitimacy over resource property, management, and access. This expands Ribot and Peluso's consideration of knowledge as a core access mechanism, showing how scientific expertise can be leveraged and deployed by Western conservation forces to control and maintain access to transboundary spaces of biodiversity. The thesis also expands on how access mechanisms can operate and interplay in conflict and post-conflict arenas, demonstrating that access can both mitigate and exacerbate conflict. For example, access to knowledge, global authority, and capital deployed by the IGCP facilitated the creation of the informal transboundary collaboration in the midst of violent interstate conflict. However, regimes of inclusion and exclusion to resource access and benefits have led to the marginalisation and violent discrimination against local and indigenous populations, most noticeably against the indigenous Batwa community of East Africa. Finally, the thesis reveals how access can be negotiated across multiple levels of authority and governance, from local communities to international institutions, revealing the complex interplay between different actors with different motivation in shaping access. This interplay also advances discussions on the tension between formal, state-sanctioned access regimes and informal, locally negotiated access arrangements, and on how issues of authority and legitimacy themselves are contested and deployed.

Third, the thesis also highlights advancements in understanding institutional bricolage and critical institutionalism. Institutional bricolage was deployed to great effect in the GVL by the epistemic conservation community. The thesis revealed how epistemic actors altered societal and systemic change at scales beyond those of communities or local livelihoods, building on

existing institutions to create an effective, if flawed, interstate conservation programme. What is novel about deployments of bricolage in the thesis is the transboundary nature of the intervention, demonstrating how multistate institutions can be harnessed and adapted to create a new unified, cross-border regime. The thesis also explores how institutional bricolage can function in conflict and post-conflict settings, providing insights into regional adaptation and resilience in the face of political challenges. Chapter 5 also expands bricolage into environmental peacebuilding, or rather, reveals how the epistemic conservation community in the GVL adopted institutions of environmental peacebuilding throughout the 1990s and 00s to create successful transboundary conservation, albeit without really realising it. The deployment of bricolage, by its nature, involves borrowing and building on multiple institutions in order to create something adapted to new realities, so evaluating the role of bricolage in environmental peacebuilding expands the utility and potential of both concepts. Similarly, the thesis also expands the larger analytic of critical institutionalism, replicating its dynamics from state to interstate governance. It shows how new formal institutions, like the GVTC, can be built by actors who navigate multiple, overlapping institutional frameworks in international conservation governance.

7.5 Limitations and weaknesses

As discussed in the methodology, the main limitation to this research was the inability to gain physical access to the DRC due an outbreak of violence and instability in the precise area targeted for field study. As the project had transboundary dynamics at its heart, being unable to collect adequate data from one of transboundary partners potentially diminished the quality of analysis. I compensated for this by, first, conducting a number of online interviews with DRC conservation executives and operatives, and second, relying on secondary literature on DRC/Virunga conservation.

A further potential limitation of the research could be that the data was likely also shaped by participants who were uncomfortable or hesitant to relay information during interviews. Themes around army activity in the national parks and activity at the forest borders saw more than one participant refuse to answer, while three interviewees, all conservation executives in Rwanda, refused to allow their interview to be recorded. At the same time, very few

interviewees drawn from local communities in Rwanda were willing to level any criticism at the Rwandan government or the conservation programme that was impacting their lives. This may also intersect with my positionality as a white foreign researcher, thereby invoking suspicion of my motives, regardless of the assurances of anonymity. As a result, themes that did emerge from the limited data was cross-referenced with analyses from other, published sources; for example, human rights abuses committed by Virunga park guards have been well documented in academic journals, while the lack of criticism of the Rwandan government was cross-referenced with well-publicised oppression of criticism by the Rwandan government.

Lastly, in my efforts to produce such a longitudinal research report and discuss the entire lifespan of the conservation intervention, a considerable weakness might be identified in the presentation of a broad, but relatively shallow, analysis. Instead of conducting a deep investigation of one or two aspects uncovered in the data, the thesis instead highlights a number of noticeable themes, any one of which could be the subject of its own deep research project.

7.6 Future research directions

My research has generated a rich collection of data and knowledge on transboundary conservation in East Africa. The case study has, of course, produced a number of promising leads that could lead to further promising research projects.

Two specific themes that emerged in the research would benefit from further study. First, as mentioned in chapter 4, to date studies of epistemic communities have been limited to their operation in both Global North contexts and in peaceful arenas. This thesis explored their operations and scientific deployment in an area of extreme violent conflict in the Global South, violent conflict between the same partner states as the conservation collaboration. So, further explorations of the role and power dynamics of epistemic communities in similar conditions would be novel and original avenues to investigate. Within the same brackets, and keeping with the emancipatory spirit of this thesis, an important research area to explore would be processes of integration or marginalisation of indigenous/local knowledge into the scientific paradigm of epistemic communities. Indeed, in keeping with methods of praxis, a

method of radical research in political ecology that encourages collaboration with indigenous and marginalised communities to 'better unearth and explain injustices, showcase interconnected oppressions, and highlight oppositional gazes' (Sultana, 2023: 728), this thesis could be a starting point to re-centring Batwa knowledges in the Virunga forests.

Second, this thesis expanded concepts of institutional bricolage to examine how elements from multiple, cross-border institutions were borrowed and built upon by conservation actors to create international institutional structures. This appears to be a nascent avenue of research. The area of critical institutionalism would benefit from further investigation into how actors navigate multiple institutional frameworks across borders in creating functioning interstate political institutions. At the same time, a close examination of the role of informal institutions in shaping formal government structures, revealing challenges and opportunities of moving institutions from the technical to the political, could provide useful analyses for future real-world applications. And, as mentioned above, a further study of the broad role of bricolage in creating and deploying environmental peacebuilding interventions would be a rich seam to mine.

The rich and detailed data from this thesis would also be useful in comparative studies with other transboundary conservation initiatives. Qualitative Comparative Analysis (QCA) is a comparative research method that examines conditions, emerging from rich case studies, that lead to specific outcomes. Deploying the themes and data that have emerged from this GVL case study in a QCA study would allow a detailed comparison with other transboundary conservation case studies. There are several comparative studies that this research could be useful for: comparing several transboundary programmes across Africa; developing a comparison study with other transboundary programmes on other Global South continents (or in the Global North); comparing GVL forest conservation transboundary conservation with cross-border marine conservation programmes; or contributing to environmental peacebuilding academia by creating a comparative study with other transboundary conservation areas in conflict and non-conflict arenas. Specific and interesting conditions to be compared might be governance structures, approaches to sovereignty, or stakeholder engagement, while specific outcomes examined might be impacts on local and indigenous

communities, or to what extent did the transboundary intervention lead to measurable peacebuilding metrics.

As mentioned above, this thesis could contribute to developing environmental peacebuilding research, academia and outcomes. For example, environmental peacebuilding research could benefit from acknowledging the opportunities and challenges to peace that the GVL intervention created. But a fuller multiscaler analysis of peace impacts of the GVL conservation intervention would be an important contribution, isolating how the transboundary conservation affects and shapes peace and cooperation between antagonists at local, national, and regional levels. A further avenue for exploration might be to build upon how the GVL intervention, representing the global conservation agenda, interacts with local peacebuilding initiatives, reflected in how the GVTC addresses interstate conflicts in the GVL.

Finally, more involved opportunities arise by committing to various longitudinal studies in the GVL area, studying the long-term impacts of policies or conservation features. For example, given the fears of biodiversity degradation expressed by a number of GVL conservation actors, a continuing evaluation of the health and resilience of the ecosystem against the operations of the GVTC over time would be a useful and productive research project. As well as impacts on the forest biodiversity, a longitudinal study of the impact on local livelihoods, and how the conservation intervention continues to shape economic opportunities, would be of importance to the critical conservation academy. Similarly, monitoring and evaluating the long-term distribution of benefits derived from conservation and ecotourism among local communities would be useful research, given the dominance of market-based logics and forest ecosystem services in the Western conservation paradigm.

These latter potential research projects would represent an evaluation, over time, of the effectiveness of development measures in Africa linked to conservation and could support or challenge Western modes of ecotourism. The longitudinal studies discussed here could be achieved by bringing together local universities and other key stakeholders from the three partner states to create a transboundary academic network in the GVL, facilitating cross-border exchanges of academic knowledge, ideas, and personnel. This network could itself work collaboratively with the GVTC, drawing in funding and leading collaborative efforts from

international/Western institutions and funding bodies, to monitor conservation impacts on the people, the gorillas, and the forests of the beautiful Greater Virunga Landscape.

Appendix 1 Participant information sheet

Participant information sheet
<p>For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection</p>
<p><u>How do transboundary environmental peacebuilding processes expose pressures towards cooperation and integration in a conflict arena?</u></p>
<p>I am a PhD student at Lancaster University and I would like to invite you to take part in a research study about the political processes behind the creation of the Greater Virunga Transboundary Collaboration (GVTC).</p>
<p>Please take time to read the following information carefully before you decide whether you wish to take part.</p>
<p>What is the study about?</p> <p>My goal is to investigate whether the views of partners in the Virunga transboundary protected area about the park reflect the processes of environmental peacebuilding – cooperation around an ecological resource (gorilla conservation) in an area of conflict.</p>
<p>Why have I been invited?</p> <p>I have approached you because I am interested in hearing from key partners from across the park in all three countries, from ambassadors, the IGCP, GVTC secretariat and board, to park staff and communities living next to the park.</p>
<p>I would be very grateful if you would agree to take part in this study.</p>
<p>What will I be asked to do if I take part?</p> <p>If you decided to take part, this would involve the following: If you decided to take part, this would involve the following: an hour-long person-to-person interview about your position and duties in the park, your views on the current condition of the park according to its aims, and a broader engagement about issues of peace and conflict in the region. With your permission I will record the interview on an audio device, and take notes as the interview proceeds.</p>
<p>COVID notwithstanding, the interviews will be in person, at a time and location to be agreed on but convenient to yourself. Failing that, an online interview would be a secondary option.</p>
<p>What are the possible benefits from taking part?</p> <p>Taking part in this study will allow you to share your experiences and views of the GVTC and of conservation more broadly in the Greater Virunga area. If you take part in this study, your insights will contribute to our understanding of how a shared ecological resource might be used as an entry point into cooperation in an area of conflict.</p>
<p>Do I have to take part?</p> <p>No. It's completely up to you to decide whether or not you take part. Your participation is voluntary and you are free to withdraw at any time, without giving any reason.</p>
<p>What if I change my mind?</p> <p>As explained above, you are free to withdraw at any time and if you want to withdraw, I will extract any data you contributed to the study and destroy it. Data means the information, views, ideas, etc. that you and other participants will have shared with me. However, it is difficult and often impossible to take out data from one specific participant when this has already been anonymised and/or pooled together with other people's data. Therefore, you can only withdraw up to two months after taking part in the study.</p>
<p>What are the possible disadvantages and risks of taking part?</p> <p>It is unlikely that there will be any major disadvantages to taking part, except for me taking up an hour of your time.</p>
<p>Will my data be identifiable?</p>

Appendix 2 Participant consent form



CONSENT FORM

Project Title: Contested Territory: Authority, access, and transboundary conservation in the Greater Virunga Landscape

Name of Researchers: Matthew Hanley

Email: m.hanley1@lancaster.ac.uk

Please read the following carefully:

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. If I withdraw within 2 months of commencement of the study my data will be removed. ☐
3. I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher/s, but my personal information will not be included and I will not be identifiable. ☐
4. I understand that my name/my organisation's name will not appear in any reports, articles or presentation without my consent. ☐
5. I understand that any interviews will be audio-recorded and transcribed and that data will be protected on encrypted devices and kept secure. ☐
6. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study. ☐
7. I agree to take part in the above study. ☐

Name of participant:	Date:	Signature:

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher/person taking the consent:

Date: _____ DD/MM/YYYY

Signature of translator (if necessary to affirm participant oral consent) _____

One copy of this form will be given to the participant and the original kept in the files of the researcher at Lancaster University

Appendix 3 Ethical approval for research project



Applicant: Matthew Hanley
Supervisor: Benjamin Neimark
Department: LEC
FSTREC Reference: FST21025

08 November 2021

Re: FST20125 (amendment to FST20010)

Dear Mathew,

Thank you for submitting your research ethics amendment application for the above project for review by the **Faculty of Science and Technology Ethics Committee (FSTREC)**. The application was recommended for approval by FSTREC, and on behalf of the Chair of the Committee, I can confirm that approval has been granted for the amendment to this research project.

As principal investigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licenses and approvals have been obtained;
- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer at the email address below (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress);
- submitting details of proposed substantive amendments to the protocol to the Research Ethics Officer for approval.

Please contact me if you have any queries or require further information.

Email: fst-ethics@lancaster.ac.uk

Yours sincerely,

A handwritten signature in black ink, appearing to read 'T. Morley', enclosed in a rectangular box.

Tom Morley,
Research Ethics Officer, Secretary to FSTREC.

Appendix 4 Example of grounded research methods using Nvivo

2022-11-2...[Edited]

Quick Access

IMPORT

Data

Files

File Classifications

Externals

ORGANIZE

Coding

Codes

Sentiment

Relationships

Relationship Types

Cases

Notes

Sets

EXPLORE

Queries

Visualizations

Reports

File

Home

Import

Create

Explore

Share

Modules

Clipboard

Item

Organize

Query

Visualize

Code

Autocode

Range

Unicode

Case

Classification

File

Classification

Workspace

Search Project

Name	Files	References	Created on	Created by	Modified on	Modified by
0 - NEW CODES	0	0	13/12/2021 11:47	MGH	21/10/2022 14:45	MGH
CH01 PARKLEE	0	0	10/11/2022 12:54	MGH	10/11/2022 17:08	MGH
CH01.1 NARRATIVE O	10	23	10/11/2022 13:05	MGH	06/08/2024 16:00	MGH
CH01.1.1 GORILLA EX	5	5	10/11/2022 13:06	MGH	08/12/2022 16:36	MGH
CH01.1.2 IGCP CREATI	10	22	10/11/2022 13:09	MGH	07/12/2022 17:34	MGH
CH01.1.3 NARRATIVE	20	22	10/11/2022 13:11	MGH	09/12/2022 14:59	MGH
CH01.2 HISTORY OF C	14	34	10/11/2022 13:23	MGH	06/08/2024 16:00	MGH
CH01.2.1 PATRO	12	16	22/11/2022 14:22	MGH	06/08/2024 16:01	MGH
CH01.2.2 EPB IN	15	35	10/11/2022 16:39	MGH	06/08/2024 16:01	MGH
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CH01.4 CURRENT NA	13	33	10/11/2022 15:08	MGH	09/12/2022 15:00	MGH
CH01.5 BATVIA	6	8	10/11/2022 15:10	MGH	08/12/2022 17:16	MGH
CH01.6 POLITICAL SE	1	1	10/11/2022 15:12	MGH	17/11/2022 12:55	MGH
CH01.7 TOURISM CAP	7	8	10/11/2022 15:20	MGH	08/12/2022 17:22	MGH
CH01.8 SECURITISATI	8	11	11/11/2022 14:17	MGH	09/12/2022 15:02	MGH
CH01.9 DISCUSSION	5	7	10/11/2022 17:47	MGH	09/12/2022 14:58	MGH
CH01.9.1 GORILLA Q	5	5	16/11/2022 13:22	MGH	09/12/2022 15:07	MGH
CH02 COMMON PEOPLE	2	3	10/11/2022 15:41	MGH	06/12/2022 11:56	MGH
CH03 DESIGN	0	0	10/11/2022 16:21	MGH	06/08/2024 15:26	MGH
CH03.1 GLOBAL GOV	1	1	10/11/2022 16:22	MGH	10/11/2022 17:26	MGH
CH03.2 GVL IN GEG	11	12	10/11/2022 16:23	MGH	07/12/2022 17:42	MGH
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CH03.4 EPSTEMIC CO	8	13	10/11/2022 16:36	MGH	08/12/2022 17:27	MGH
CH03.5 GYTC	8	12	10/11/2022 16:38	MGH	28/11/2022 16:14	MGH
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Appendix 5 2005 Tripartite Declaration on the Transboundary Natural Resources Management of the Transfrontier Protected Area Network of the Central Albertine Rift. Aka the 'Goma Declaration'.

Tripartite Declaration On the Transboundary Natural Resources Management of the Transfrontier Protected Area Network of the Central Albertine Rift The Democratic Republic of Congo The Republic of Rwanda The Republic of Uganda

RECOGNISING the necessity to conserve the unique ecosystem of the Central Albertine Rift Transfrontier protected area network through the collaborative management of the Volcano National Park, Mgahinga Gorilla National Park, Bwindi Impenetrable National Park, Queen Elizabeth National Park, Semliki National Park, Ruwenzori Mountains National Park, Kibale National Park and Virunga National Parks for the benefit of the people of the Democratic Republic of Congo, Rwanda, Uganda, and the international community;

ENVISIONING the Central Albertine Rift transfrontier protected area network together with the surrounding landscape conserving endemic and high biodiversity values sustainably;

TARGETING the establishment of a strategic transboundary collaborative management system that enables sustainable conservation of the Central Albertine Rift biodiversity for long-term socio-economic development;

CONSCIOUS of the benefits to be derived from close co-operation;

MINDFUL of the principle of sovereign equality and territorial integrity of the three states; and thus

ACCEPTING that This Agreement shall in no way be construed as derogating from any provision of the domestic law in force in the countries of the Parties or any other agreement entered into between the Parties; and

Now therefore it is hereby declared that:

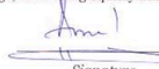
1. The Central Albertine Rift Transfrontier protected area network is recognized as a transboundary ecosystem shared by the Republic of Rwanda, the Republic of Uganda and the Democratic Republic of Congo hereby referred to as "DRC".
2. the efforts to coordinate and collaboratively manage these protected areas as one ecosystem, and especially the development of a Transboundary Strategic Plan are hereby appreciated and noted respecting the borders of the three countries.
3. The final Transboundary Strategic Plan for the Central Albertine Rift Transfrontier Protected Area Network shall be fully recognized and accepted by the three countries.
4. efforts shall be made to initiate the development of a collaborative protocol amongst the three governments to ensure formal agreement of management of

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the transboundary protected area network that contributes to the conservation of biodiversity and subsequently to the common goal of poverty reduction in the three countries.

5. Recognizing the need to finance this initiative, the ministers do hereby accept to lobby their respective governments and other key players to make a financial commitment to enable implementation of the transboundary strategic plan as mentioned in article 2 above.


IN WITNESS WHEREOF the undersigned have agreed on this declaration in duplicate in the English and French language, both being equally authentic.

Anselme ENERUNGA  14 oct 2005
Name Signature Date

Excellence Minister ANSELME ENERUNGA,
Ministry of Environment, Nature Conservation, Water and Forests, DRC

MITAI Protas  14th/oct/05
Name Signature Date

Excellence Minister of State PROTAIS MITARI,
Ministry of Commerce, Industries, Investments Promotion, Tourism and Cooperative, the Republic of Rwanda

AKAKI Ayumu JOVINO  14/10/05
Name Signature Date

The Honourable Minister of State JOVINO AKAKI AYUMU,
Ministry of Tourism, Trade and Industry, the Republic of Uganda

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Appendix 6 Voices from below: narratives from conservation actors on the potential of the GVTC

Among key actors in the GVL, from the GTVC Board to individual park staff, from NGO executives and employees operating in the GVL to regional analysts, the GVTC represents a tremendous potential on several levels, many of which flows from the interstate institution playing a greater role, as a legal diplomatic body, in the region's geopolitical security.

Peace and security

A significant number of actors operating in the park expressed support for the idea that the GVTC should have a greater political voice in the region. This role would be confined to conservation issues affecting the GVL, but the cause of those issues would be broadly defined.

A good example of this limited but empowered role is set out by a senior IGCP employee:

*'The GVTC's role is one of political diplomacy. So, I would like to see the GVTC engaging different levels of political actors across the partner states, behind the scenes or on the ground. The GVTC could become a pro-active geopolitical player in region, able to step in as a mediating force whenever political tensions threaten the biodiversity territory under its management. With funding, full staff levels and strong leadership, with the mandate it already has (in the Treaty), I really think the GVTC could play a significant role in the region.'*¹³²

A Western NGO Director goes even further when considering the GVTC's role in the GVL:

*'The GVTC should have a huge role in how the landscape is protected or developed (or not) and be able to apply pressure on whichever government or groups if they decide to do something that is considered negative to the landscape.'*¹³³

This mandate would also see the expansion of the park, as a GVTC executive explained:

'We would create the infrastructure and systems to manage all the national parks and reserves in the broader region, expanding north, south, east and west, to include 3

¹³² ANON (Interview No. 25): 01/08/2022

¹³³ ANON (Interview No. 29): 25/07/2022

more forests and 2 parks, because what happens in those places has direct effects on those (currently) in the GVTC (jurisdiction).'¹³⁴

This expansion would then give the GVTC considerable diplomatic presence in East Africa, especially:

'...if the GVTC is integrated into East African Community initiatives, it will work better. The GVTC, as a legal body, could be an actor in EAC regional political activity.'¹³⁵

Furthermore, by operating as a significant independent force in the GVL, the GVTC could contribute to increasing the security of park staff operating in the parks, a role the IGCP maintained with some success during the years of state conflict:

'We are not political. Our concern is protecting the environment, the fauna and flora of the park. We are not armed forces. We are fighting no-one. So, if GVTC could intervene and find a place and a way of working.... it should be talking to those political leaders of all the groups in the park, to make them aware of the presence of the park staff inside the park.'¹³⁶

Put simply, by a Rwandan field operative active in the Volcanoes NP, and in contrast to original indigenous practitioners' views when building the transboundary initiative:

'I would like the GVTC to contribute to peacebuilding efforts. At the moment it stays out of security affairs, but the GVTC could provide a platform for de-escalation of local conflicts'.¹³⁷

Fundraising

In order to become a greater regional presence, the GVTC has the potential to become a far greater actor in attracting international financing and investment, above and beyond the £100,000 annual funding by each partner state:

¹³⁴ ANON (Interview No. 60): 06/08/2022

¹³⁵ ANON (Interview No. 12): 28/05/2021

¹³⁶ ANON (Interview No. 31): 28/06/2022

¹³⁷ ANON (Interview No. 57): 15/06/2022

‘(The Secretariat) could have a really strong fundraising arm that can write grant proposals and access international funding... We need to expand the GVTC’s capacity to fund itself from a greater range of outside donors.’¹³⁸

As an institution dedicated to protecting the charismatic mountain gorilla, while also offering a platform for collaboration between conflicting states, as well as an international donor conduit for regional community development, the GVTC could potentially expand its revenue-generating capacity significantly:

‘If well marketed, I think the GVTC could be such a great fundraiser and bring in money that not only could it sustain itself but also contribute to conservation and development work on the ground. The future of the GVTC should engage in fundraising from external sources as well as from partner states.’¹³⁹

Conservation

A dramatic increase in funding, combined with greater peace and stability in the GVL, would also see the GVTC able to ramp up its transboundary facilitation, conservation and tourism programmes and push for further unity between PAAs. Senior staff from the parks expressed a great desire for the GVTC to lead on creating common monitoring information systems:

‘A new harmonised system could capture and store climate data, law enforcement data, patrol data’.¹⁴⁰

This data, using harmonised technology and stored on a secure centralised database operated by the GVTC, could be made accessible to PAAs, NGOs and other trusted conservation partners in the community:

‘Since the GVL is one ecosystem, it should be monitored and managed in the same way to ensure we all have similar conservation observations and outcomes.’¹⁴¹

This could even involve the creation of a new joint ranger force:

¹³⁸ ANON (Interview No. 51): 26/08/2022

¹³⁹ ANON (Interview No. 25): 01/08/2022

¹⁴⁰ ANON (Interview No. 60): 06/08/2022

¹⁴¹ ANON (Interview No. 12): 28/05/2021

*'A trilateral ranger force for the whole ecosystem, with harmonised policies and uniformed conservation staff posted across the three countries. This way we could monitor the standard of people being employed and working in the ecosystem.'*¹⁴²

As an institution that facilitates cooperation between the partner states and funds transboundary programmes, as opposed being an implementation body, many regional actors felt that the GVTC would benefit from greater regional authority:

*'I'd like to see the GVTC given greater power to influence the conduct of the conservation players and therefore the power to influence the direction that conservation is going... the GVTC has a strategy, but I don't think it's really owned by everyone. It's important to have a strategic plan that is owned by all the regional players... The GVTC is good at bringing people together, helping them see what to do and doing it with them... and this is what the GVTC should be central to... Not implementing but facilitating.'*¹⁴³

Closer and more interwoven transboundary monitoring and ranger activity could also enhance conservation levels further by:

*'...increase(ing) the capabilities of the GVTC and parks to detect and respond more rapidly to emergencies with an early-warning system to better anticipate events that could lead to a degradation of the environment.'*¹⁴⁴

Tourism

A senior Congolese politician described the positive relationship between peace in the GVL and the potential for tourism:

*'If you have peace, then you have people in field working together properly, and you have more tourists coming and they can cross the borders easily on one tourism package. Peace and increased business is possible if the GVTC is working properly. This is a direct consequence.'*¹⁴⁵

¹⁴² ANON (Interview No. 22): 10/08/2022

¹⁴³ ANON (Interview No. 34): 16/03/2022

¹⁴⁴ ANON (Interview No. 57): 15/06/2022

¹⁴⁵ ANON (Interview No. 49): 06/10/2022

The potential of an expanded array of cross-border eco-tourism products, that absolutely do not exist currently, was an issue that arose a number of times during discussions with senior practitioners. A Ugandan senior warden from the Mgahinga NP discussed the idea of a tourist 'GVTC VISA' that would grant access to all three gorilla-dwelling national parks and other parks and reserves within the GVL, similar to the free Interstate Pass issued to residents of Rwanda, Uganda and Kenya, allowing residents VISA- and passport-free travel between partner states:

*'From the tourists' angle, we lack a situation where tourists who enter Rwanda are also able to visit Uganda and DRC in the same trip. We could package products with far greater value and potential to all three countries than we currently are. A GVTC VISA would allow a tourist to move around the three countries with convenience, paying for services in Rwanda, then in Uganda and then in Congo. So, a tourist could enter via Kigali (Rwanda) airport and then move through the other countries. If the collaboration was operating well we could look at things like this.'*¹⁴⁶

Clearly this isn't a wild idea. A senior GVTC official, without prompting, also raised the suggestion that, in a more peaceful region, cross-border tourism within the GVL is desirable and a long-term aspiration, if not a future tourism strategy:

*'If Congo is peaceful, a tourist could fly in to Rwanda and visit the Volcanoes NP one day, travel to Uganda and stay the night in Mgahinga and see all their wildlife the next, then the day after travel into Congo on a very good road down to Bukavu (home of the Virunga NP HQ) to see the gorillas of the Virunga NP, and even continue to visit another species of gorillas altogether (lowland gorillas) in Kahuzi Biega National Park. We could provide a far richer tourism product that would attract more people and much more attention.'*¹⁴⁷

A consensus of opinion from across the conservation regime in the GVL seems to be that consequence of greater security in East Africa and improved relations between the partner states, potentially with the GVTC playing a formative role, will contribute to higher levels of anti-poaching security and ecosystem conservation amid greater harmony and cooperation

¹⁴⁶ ANON (Interview No. 20): 25/08/2022

¹⁴⁷ ANON (Interview No. 60): 06/08/2022

between partner states. This security and improved conservation measures could then enable the GVTC and partner states to provide an enhanced tourism product on the global ecotourism market. This would increase tourism revenue for the partner states, which in turn would lead to high funding dedicated to community conservation and development. A former senior Rwandan politician summarised that a main concern of the GVTC should be local communities:

‘The focus should be on capacity-building for local communities operating in the ecosystem. Second, leverage tourism development programmes, so that all the communities could directly benefit. Third, develop an innovative business or investment blueprint for the whole GVL that could benefit the communities, for external investors, internal, public, and private sectors, that will create jobs for the communities.’¹⁴⁸

Community development

With increased conservation revenue comes an increase in financial contributions through the revenue-sharing programme to park-adjacent communities, money spent on community infrastructure or livelihood projects. Revenue sharing in this case can be described as being ‘concerned with the arrangements for sharing a proportion of the protected area's income with local stakeholders (residents) to provide an incentive for them to support conservation’ (Franks and Twinamatsiko, 2017). Rwanda and Uganda are the only countries in Africa so far to have formal tourism-revenue sharing policies that prescribe a specific amount (Snyman et al., 2023). Rwanda shares 10% of all national eco-tourism revenue, and Uganda shares 20%, with communities that live adjacent to all protected areas, not just with those adjacent to gorilla parks. However, Uganda also shares 10% of every gorilla permit with communities living adjacent to Mgahinga NP and Bwindi National Park, a protected area 50km north of Mgahinga within the GVL, and containing a second, smaller group of mountain gorillas (Tolbert et al., 2018). Although there is no prescribed revenue sharing formula in the DRC for communities surrounding Virunga National Park, 50% of park entrance fees go to the Institut Congolais pour la Conservation de la Nature (ICCN) in Kinshasa, 20% to operational costs of the park and 30% to community projects and groups (Molenge, 2014).

¹⁴⁸ ANON (Interview NO. 24): 09/11/2022

If revenue sharing increases income to park-adjacent communities, human-wildlife conflict (HWC) often removes it, and the GVTC here could also play a significant role. HWC is one of the main sources of discontent among members of the local communities living adjacent to the national parks who were interviewed, and 'is one of the most intractable challenges in the conservation of wildlife' in the region (Sabuhoro, 2023: 1). HWC occurs 'when the needs and behaviour of wildlife impact negatively on the goals of humans or when the goals of humans negatively impact the needs of wildlife' (Madden, 2004: 248). HWC can take the form of disease transmission (mountain gorillas, susceptible to human diseases, are put under increasing risk from transmission of disease from tourists carrying harmful foreign pathogens [Sandbrook & Semple, 2006]), livestock depredation (Inskip and Zimmermann, 2009; Li et al., 2013), property damage (Thomassen et al., 2001; Ogra, 2008; Thapa, 2010), crop raiding (Dickman, 2010), and in some extreme cases, human injury or death (Sitati et al., 2003; Gubbi, 2012). The dominant category of human-wildlife interactions in the GVL appears to be the loss of arable crops or plantations through wildlife foraging, wild animals crossing the park border defences and leaving the protected area to feed on farmers' crops, and the lack of timely compensation measures from local or national authorities.

Agricultural activity and subsistence farming are by far the main sources of income and survival in communities surrounding the three national parks (Kenfack, 2013; Sabuhoro et al., 2020; IGCP, 2023), with crop fields grown in some areas up to the borders of the protected areas, areas that harbour particularly significant populations of herbivorous and omnivorous species like elephants, buffalo, duiker, a variety of ape, and many more. Most of the people who live in these areas depend on agriculture and farming. On top of the issue of population density, many people living adjacent to the parks live in extreme poverty (Sabuhoro et al., 2017). Rwanda and Uganda have created a national fund specifically to distribute compensation to farmers for crops lost through crop-raiding (Uganda's programme is currently with parliament awaiting ascension to national law). In interviews with local farmers, however, the compensation process seems unwieldy and overly bureaucratic:

'Our friends weren't happy with the size of the compensation they received considering the crops they lost... the compensation scheme could be more streamlined so we

*receive compensation quicker for any damage done. The bureaucracy of the scheme gets in the way.*¹⁴⁹

*'It definitely needs improving. It takes far too long... and the amount rarely covers the damage done'.*¹⁵⁰

*'We tell them that animals come into our gardens and the park people promise us compensation, but this either this compensation never comes, or it takes forever to arrive'.*¹⁵¹

These comments reflect the overall feeling of all park-adjacent community groups interviewed in Uganda and Rwanda. A senior GVTC official suggested that he'd like border security to be a more central policy:

*'The GVTC should have the funding to make our park borders more secure so there was no encroachment from local communities, and most importantly no more human-wildlife conflict'.*¹⁵²

The feeling among conservation practitioners was that a fully funded and functioning GVTC here could address HWC across all areas.

*'The partner countries are using different border tactics: Uganda a stonewall, Rwanda a stonewall and a ditch, DRC an electric fence. So, I would harmonise border security across the whole ecosystem, and then we can deal with animals inside the park and people outside once and for all. This is an easy win.'*¹⁵³

¹⁴⁹ ANON (Interview No. 9): 28/06/2022

¹⁵⁰ ANON (Interview No. 14): 29/06/2022

¹⁵¹ ANON (Interview No. 38): 18/08/2022

¹⁵² ANON (Interview No. 57): 15/06/2022

¹⁵³ ANON (Interview No. 22): 10/08/2022

Glossary

ACP	African, Caribbean and Pacific Group of States
AIMPO	African Indigenous Minorities Peoples' Organization
ALU	African Leadership University
APAC 2022	African Protected Areas Congress, 2022
ARDI	Association Rwandaise pour la promotion du Développement Intégré
AWF	African Wildlife Foundation
BIOPAMA	Biodiversity and Protected Areas Management programme
BMCT	Bwindi Mgahinga Conservation Trust
CI	Conservation International
CTPH	Conservation Through Public Health
DRC	Democratic Republic of Congo
EAC	East African Community
EC	European Commission
ECGLC	Economic Community of the Great Lakes Countries
ESRI	Environmental Systems Research Institute
EU	European Union
EWT	Endangered Wildlife Trust
FAO	Food and Agriculture Organisation
FAR	Forces armées Rwandaise
FDLR	The Democratic Forces for the Liberation of Rwanda
FFI	Flora & Fauna International
FFPS	Fauna and Flora Preservation Society
FSTREC	Faculty of Science and Technology Research Ethics Committee
GVL	Greater Virunga Landscape
GVTC	Greater Virunga Transboundary Collaboration
GVTCT	Greater Virunga Transboundary Collaboration Treaty
ICCN	Institut Congolais pour la Conservation de la Nature
ICGLR	International Conference of the Great Lakes Region
ICS	International Crane Society

IFAW	International Fund for Animal Welfare
IGCP	International Gorilla Conservation Programme
ILO	International Labour Organisation
ITFC	Institute for Tropical Forest Conservation
IUCN	International Union for the Conservation of Nature
IZNC	Zaire Institute for the Conservation of Nature
M23	Mouvement du 23 Mars
MGCF	Mountain Gorilla Conservation Fund
MGP	Mountain Gorilla Project
MoU	Memorandum of Understanding
NGO	Non-Government Organisation
OECD	Organisation for Economic Co-operation and Development
ORTPN	Rwandan Office for Tourism and National Parks
PAA	Protected Area Authority
PPI	Public Private Partnership
PTES	People's Trust for Endangered Species
RBM	Ranger Based Monitoring
RDB	Rwandan Development Board
RPF	Rwandan Patriotic Front
TBFA	Transboundary Frontier Area
TBNRM	Transboundary Natural Resource Management
TBPA	Transboundary Protected Area
TNC	The Nature Conservancy
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNSC	United Nations Security Council
UNTWO	United Nations World Tourism Organisation
UOBDU	United Organisation for Batwa Development in Uganda
UWA	Ugandan Wildlife Authority
VCRP	Volcanoes Community Resilience Project
WCPA	World Commission on Protected Areas

WWF	World Wildlife Foundation
ZMGP	Zaire Mountain Gorilla Project

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