# The Political Ecology of Conservation at a Violent Frontier Constellation in South Kivu, Eastern Democratic Republic of Congo

Fergus Michael William O’Leary Simpson

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# The Political Ecology of Conservation at a Violent Frontier Constellation in South Kivu, Eastern Democratic Republic of Congo

# De politieke ecologie van natuurbehoud in een gewelddadige context in Zuid-Kivu, Democratische Republiek Congo

**Thesis**

**to obtain the degree of Doctor from the Erasmus University Rotterdam by command of the Rector Magnificus**

Prof.dr. A.L. Bredenoord

**and in accordance with the decision of the Doctorate Board**

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by


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No research project is envisioned, enacted and delivered by a single person. This PhD does not depart from this rule. From start to finish, it has been a fundamentally a collaborative endeavour between myself and the people I have interacted with over the last four years – and even before that. I could not have finished it without *you*. I would like to acknowledge everyone who has contributed to this work over the years, in ways big and small. Still, the mistakes, errors and omissions remain mine alone.

I wanted to do a PhD the day I started my BA in Environmental Sustainability at the University of Leeds. As soon as I set foot in the Sustainability Research Institute (SRI), I knew was in the right place. The corridors hummed with the soft sound of knowledge creation. The researchers spoke with the purpose and passion of people who truly love what they do. After years not knowing quite who I was or who I wanted to be, this was exactly what I had been looking for. Special thanks go to Jamie Van Alstine, Lindsay Stringer, Susannah Sallu, Claire Quinn, George Holmes and Piers Forster for their sharing their knowledge during those years. Their tuition and guidance affected me probably more than they know. Thanks also to the inspiring students I met along the way: Ben, Ross, Kate, Daisy and many others. It was a privilege co-creating this experience with you.

My university education first piqued my curiosity about politics and the environment in sub-Saharan Africa. I had the opportunity to travel to the region several times during that period. I will never forget the time I spent in Tanzania's Usambara Mountains for Susy's overseas field course. I carried out a small-scale study on the impact of malaria on household agriculture. From that point, it seemed inevitable I would one day go to undertake PhD research somewhere in in sub-Saharan region. After completing an MSc in Environment and Development at SRI, I travelled to Rwanda in April 2014 for a personal research project to learn and write about this land of a thousand hills. My love goes out to Ignatius, Jackie, William and Gideon Mugabo for hosting me on so many occasions. Looking back at my over-indulgent, verbose essays from that trip, I cannot help but wince with embarrassment. Still, this experience was instrumental in my decision to pursue PhD research later on in eastern Democratic Republic of Congo (DRC). Mine is far from the only story to start in Rwanda that continues today in eastern Congo.

This PhD project would certainly not have been possible without the support of Professor Sara Geenen, from the University of Antwerp's Institute of Development Policy (IOB). I first reached out to Sara about the prospect of doing a PhD on 28th March 2017. I was working for a business consultancy in London. Tired of rat race, I desperately wanted to get back to academia and do something I really cared about. Sara kindly agreed to meet for a coffee at Paddington Station to discuss options. She helped me write a grant proposal to the Research Foundation Flanders (FWO) over the following year. To my surprise – and perhaps to Sara's – we won the grant! Little did I know that moment would forever change the course of my life. I have since come to admire Sara more and more as both a researcher and a person. Her clarity of thought and prose, the diligence she brings to her research, are a continual source of inspiration. She is also co-author on the first ever article I published in an international research journal. I sincerely hope our collaborations may last long into the future.

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As with all academic research, I could not have written this PhD without standing on the shoulders of the giants who inspired me both before and after the writing process – most of whom I will likely never meet. Although some of their names are not referenced in this PhD, I could not write these acknowledgements without expressing some love for the people who first got me excited about writing, thinking and intellectual expression. The stories of J.R.R. Tolkien and Phillip Pullman provided me with solace and escapism in childhood, and then again more recently, in eastern DRC's hinterlands. The politics and prose of the late Christopher Hitchens still fill me with marvel, anger and awe. What I would have done to witness his commentary on the state of the world today! Richard Dawkins' books taught me academic writing does not have to be boring or stifling, but can sparkle with metaphor and allegory as much as any work of fiction. James Scott's writings on the weapons of the weak and hidden transcripts first got me into political science. Anthony Giddens' work on the relationship between structure and agency (i.e. structuration) recently got me excited about doing this work all over again. More names get added to this list every day!

To turn back home to the UK, I want thank all the friends who have seen me grow up. Andrew Duncan, thank you for being my cousin and closest friend for so many years. We have shared more than most already and I am excited to see how our friendship deepens in the future. May our adventures long continue! An extra special thank you goes to Alex Hamilton, who

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# ABSTRACT

Eastern DRC is famous for its biodiversity, ecosystems and enormous geological wealth. The region is also notorious for violent conflict, its lack of state capacity, and the dizzying quantity of non-state armed groups which fragment control of its landscape. In this PhD thesis, I explore the implementation and effects of environmental conservation in eastern DRC's South Kivu Province. In a chapter on methodology, I explain how I selected Kahuzi-Biega National Park and Itombwe Nature Reserve as case study sites, the first of which represents a case of a militarised 'fortress' conservation area, the second a more consensual 'community' conservation area. In a chapter on the theoretical framework, I conceptualise conservation as an activity which takes place on a commodity frontier which links up to global capitalist networks. In eastern DRC, the conservation commodity frontier forms part of a broader constellation of commodity frontiers, notably including those concerning the extraction and trade of mineral resources.

In the first empirical chapter, I propose the processes of territorialisation taking place at mining and conservation commodity frontiers need to be disaggregated. Territorialisation for mining occurs at artisanal, semi-industrial and industrial scales. Territorialisation for conservation includes both flexible and strict designations for protected areas – which can sometimes exist within a single park or nature reserve. I suggest that the move towards more flexible forms of conservation governance and semi-industrial and artisanal forms of mining represent systemic responses which allow different frontiers to overlap and therefore expand into previously inaccessible areas. This effectively enables more and more value to be derived from the resources located within individual parcels of land. I propose states with weak regulatory capacity where the boundaries between legal and illegal have become blurred, are likely to be particularly propitious to the emergence of double frontiers. In turn, as opposed to consolidating centralised government control, the coincidence of conservation and mining frontiers serves to further pluralise and fragment public authority.

The expansion of different commodity frontiers can result in diverse responses 'from below', ranging from resistance to attempts to secure economic incorporation. In the second empirical chapter, I present what appears to be a classic case of resistance to fortress conservation in Kahuzi-Biega National Park whereby a population dispossessed of its lands and resources rose up against conservation rule. In the third empirical chapter, I demonstrate how although fortress conservation and its militarised enforcement have generated grievance and resistance among people surrounding the park, they play only a marginal role in defining the structures shaping the actions of armed groups. The seemingly perpetual mobilisation of armed groups inside the park boundaries is primarily the product of wider socio-structural features of the landscape in which the park is embedded. These include the legacies of insecurity and poverty, the geographical features of the park itself, including its significant reserves of mineral resources, and the presence of illicit trading networks. Some of these structures are reproduced (and/or reshaped) by actions of individual armed group members, leading to the 'structuration' of armed mobilisation over time and space.

In the fourth empirical chapter, I present data from Itombwe Nature Reserve, a consensual community-based conservation area in a region where militarised conservation otherwise dominates. Where the state is largely weak or absent, I suggest people looked to reserve as a

replacement 'social contract' of the sort that would usually be delivered by a functioning government. This entailed them accepting certain obligations and restrictions on their lives, i.e. limitations on resource and land uses, in order to receive certain benefits, i.e. development projects and security, from conservation. I conclude that conservation social contracts of this sort are likely to produce unintended consequences when perceived to be left unfulfilled or broken, for example, by inadvertently leading communities to look to other frontier actors as a source of development and security, such as the extractive industries.

In the final conclusion I reflect on the transversal themes touched upon throughout the thesis. In so doing, I assess the relevance of my findings for broader debates about different conservation strategies in violent frontier regions, including around displacement and indigenous peoples, the militarised enforcement of conservation regulations, and community conservation and the decentralisation of regulatory responsibility. Lastly, I offer some practical solutions for the future of conservation in eastern DRC and reflect on how my positionality as a researcher has changed throughout this doctoral journey.

# SAMENVATTING

Het oosten van de Democratische Republiek Congo (DRC) staat bekend om zijn biodiversiteit, ecosystemen en enorme geologische rijkdom. De regio is ook berucht om gewelddadige conflicten, een tekortschietende overheid en infrastructuur en een verscheidenheid aan gewapende niet-gouvernementele groeperingen, waardoor de controle over het grondgebied versnipperd is. Dit proefschrift gaat over de uitvoering en effecten van milieubehoud in de provincie Zuid-Kivu in het oosten van de DRC. In een methodologiehoofdstuk wordt uiteengezet hoe het Nationale Park Kahuzi-Biega en natuurreservaat Itombwe als casestudy's werden gekozen. Het eerste gebied is een voorbeeld van een gemilitariseerd natuurgebied (een 'fort'), het tweede een meer op overeenstemming gebaseerd 'gemeenschaps'natuurgebied. In een hoofdstuk over het theoretisch kader wordt natuurbehoud opgevat als een activiteit die plaatsvindt op een *commodity frontier* (een nog relatief onontgonnen, mogelijk kwetsbaar gebied waar grondstoffen worden gewonnen en gewassen worden geteeld) die verbonden is met wereldwijde kapitalistische netwerken. In het oosten van de DRC maakt de beschermde commodity frontier deel uit van een breder stelsel van commodity frontiers, waaronder gebieden waar delfstoffen gewonnen en verhandeld worden.

In het eerste empirische hoofdstuk wordt gepleit voor een onderscheid tussen territorialisering bij commodity frontiers waar mijnbouw plaatsvindt en bij commodity frontiers die een beschermd natuurgebied vormen. Territorialisering voor mijnbouw gebeurt op ambachtelijke, semi-industriële en industriële schaal. Territorialisering voor natuurbehoud omvat zowel flexibele als strikte aanwijzingen als beschermd gebied, die soms binnen één enkel park of natuurreservaat kunnen bestaan. Volgens dit proefschrift is de ontwikkeling in de richting van flexibelere vormen van natuurbeheer en semi-industriële en ambachtelijke vormen van mijnbouw een uiting van een systeemreactie die het mogelijk maakt dat verschillende frontiers elkaar overlappen en zich daarmee uitstrekken tot voorheen ontoegankelijke gebieden. Hierdoor kan er steeds meer waarde worden verkregen uit de hulpbronnen op afzonderlijke percelen. In staten met een zwakke regelgevingscapaciteit waar de grenzen tussen legaal en illegaal vervaagd zijn, kunnen dubbele frontiers waarschijnlijk gemakkelijk ontstaan. In plaats van centraal gezag van de overheid te consolideren, leidt het samenvallen van frontiers voor natuurbehoud en mijnbouw tot een verdere pluralisering en versnippering van het overheidsgezag.

De uitbreiding van verschillende commodity frontiers kan verschillende reacties van de bevolking uitlokken, variërend van verzet tot pogingen om economische integratie te bewerkstelligen. Het tweede empirische hoofdstuk beschrijft een klassiek geval van verzet tegen gemilitariseerde natuurbescherming in het Nationale Park Kahuzi-Biega, waar inwoners in opstand kwamen tegen het natuurbeschermingsregime nadat hun land en hulpbronnen waren onteigend. In het derde empirische hoofdstuk wordt aangetoond dat met militaire middelen afgedwongen natuurbescherming weliswaar heeft geleid tot klachten en verzet, maar tegelijkertijd slechts een marginale invloed heeft op de structuren die de acties van gewapende groepen in het Nationale Park Kahuzi-Biega bepalen. De schijnbaar voortdurende mobilisatie van gewapende groepen in het park is in de eerste plaats het gevolg van bredere sociaal-structurele kenmerken van het landschap waarvan het park deel uitmaakt. Hieronder vallen bijvoorbeeld de erfenis van onveiligheid en armoede, de geografische kenmerken van

het park, waaronder de aanzienlijke reserves aan minerale bodemschatten, en de aanwezigheid van illegale handelsnetwerken. Een aantal van deze aspecten worden in de loop van de tijd en ruimte gereproduceerd (en/of herschapen) door de individuele leden van gewapende groepen.

Het vierde empirische hoofdstuk beschrijft data van natuurreservaat Itombwe, een op overeenstemming gebaseerd gemeenschapsnatuurgebied in een regio waarin gemilitariseerde natuurbescherming overheerst. Wanneer het overheidsgezag zwak of afwezig is, lijkt het erop dat mensen een natuurgebied beschouwen als vervanging van een 'sociaal contract' dat normaliter door een goed functionerende overheid zou worden gesloten. Dit houdt in dat zij bepaalde verplichtingen en beperkingen moeten aanvaarden om te kunnen profiteren van bepaalde voordelen van natuurbehoud. Wanneer dergelijke sociale natuurbehoudscontracten niet nagekomen of verbroken worden, kan dit onverwachte gevolgen hebben. Bijvoorbeeld wanneer gemeenschappen worden aangemoedigd zich tot andere actoren in het gebied, zoals de mijnbouwsector, te wenden als bron van ontwikkeling en veiligheid.

Het slothoofdstuk bevat een reflectie op de transversale thema's die in het gehele proefschrift aan de orde komen. Ook wordt ingegaan op de relevantie van de onderzoeksresultaten voor het bredere debat over verschillende manieren van natuurbehoud in gewelddadige frontiergebieden. Hierbij komen onderwerpen aan bod als ontheemding en inheemse volkeren, gemilitariseerde handhaving van natuurbeschermingsregelgeving, en natuurbehoud door de gemeenschap en decentralisatie van de regelgevende verantwoordelijkheid. Ten slotte worden enkele praktische oplossingen aangereikt voor de toekomst van natuurbehoud in het oosten van de DRC. De auteur besluit met een overdenking van de verandering die hij in de loop van het promotieonderzoek in zijn positie als onderzoeker heeft doorgemaakt.

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# INTRODUCTION

## 1. Setting the scene: Conservation amidst armed conflict in eastern DRC

The purpose of this thesis is to improve our understanding of the politics of environmental conservation in parts of the world affected by war and violent extraction. When I say 'conservation', I am referring to actions designed to preserve natural resources – animals, plants, ecosystems, landscapes – from the destructive effects of human activities. My chosen site of investigation: eastern DRC, a vast region of Central Africa bordering Uganda, Rwanda and Burundi. The Congo's North and South Kivu Provinces are world-famous for their spectacular biological richness. They are home to critical populations of mountain and eastern lowland gorillas, African forest elephants, eastern chimpanzees and the elusive Okapi, among numerous other rare and endangered species. They also contain large tracts of primary rainforest which are increasingly acknowledged to represent a globally important carbon sink and source of climate change mitigation. As a result, eastern DRC has attracted the attention of conservationists and environmentalists from before the colonial era up until the present day. Unfortunately, over the past few decades the region has become famous for something else: that is, perpetual cycles of violence, conflict and war starting in the 1990s.

From the beginning, I want to acknowledge eastern DRC is no typical conservation case study. Protected areas in the Kivu Provinces represent about as extreme examples of 'conservation amidst armed conflict' as are available to research. These are places where control and access to land and natural resources is violently contested by a staggering number of, typically armed, actors. They are also sites of intense global capitalist connection, which I will describe as 'commodity frontiers', despite appearing wild and isolated on the surface. My analysis attempts to account for this complexity by conceptualising the overarching structures within which conservation plays out – all the way from the global economic system in which capital flows for conservation are generated, the nation state and its sub-regions through which these flows are funnelled, down to the local territories in which protected areas are managed. Since the DRC achieved independence in 1960, a variety of international conservation NGOs have worked alongside the government to create a vast patchwork of conservation spaces across the country. Even though eastern DRC has been enveloped in violence and war since the 1990s, multiple NGOs and development agencies continue to operate there today. These – mostly European and American – organisations provide extensive financial and technical support to the Congolese state conservation agency *L'Institut Congolais pour la Conservation de la Nature* (ICCN). At the same time, diverse social groups surround Congo's protected areas, speaking an enormous number of languages, maintaining distinct relationships to nature. Where the state is especially weak in the eastern territories, non-state armed groups also hide out inside protected areas. This is the empirical stage upon which my thesis is set.

Over four empirical chapters, I present ethnographic research conducted around two protected areas located in South Kivu Province, Kahuzi-Biega National Park and Itombwe Nature Reserve. The first is an International Union for Conservation of Nature (IUCN) category II[1] protected area, meaning it is a strict conservation area where only limited tourism and no

[1] IUCN, 'Protected Area Categories': https://www.iucn.org/theme/protected-areas/about/protected-area-categories

local land uses are allowed. This represents an example of militarised or fortress conservation. The second is an IUCN category VI protected area, meaning a degree of local participation takes place and limited small-scale (i.e. non-industrial) resource uses are permitted within certain land-use zones. This is an example of community-based conservation. Together these cases contribute towards an emerging body of evidence on conservation in violent environments and frontier regions. In the DRC, several authors have produced studies of Virunga National Park in North Kivu (Hochleithner, 2017; Verweijen and Marijnen, 2016) and Garamba National Park in Haut-Uele (Titeca and Edmond, 2019; Titeca *et al.*, 2020). Considering the size of protected areas and the considerable threats to biodiversity in South Kivu, it is somewhat surprising the region has not garnered more interest from conservation social scientists. This thesis should go some way to filling this gap. By looking at cases of both fortress and community conservation, I have also been able to draw conclusions about the implementation and effects of two different approaches in a single violent frontier region.

South Kivu has been the centre of various conflicts over recent decades. During the Mobutu era, Laurent Kabila's rebel army hid out in the forests of Hewa Bora in Fizi territory. Various waves of armed conflict have swept through the wider region since the 1990s, the Rwandan genocide (1994) and the two Congolese Wars (1997-1998 and 1998-2003) being most significant. Today, numerous armed groups assert control over large swathes of territory in the region: multiple Mai Mai and Raia Mutomboki groups, the *Conseil national pour le renouveau et la démocratie* (CNRD),[2] offshoots of the armed Nyatura franchise, various Burundian rebel factions, and the Ngumino and Twigwaneho groups on the Haut Plateu in Mwenga and Fizi (Kivu Security Tracker, 2021). Many of these groups currently use, or have previously used, isolated forests inside protected areas as places to hide out, plan operations, and extract resources. As a result, large swathes of South Kivu's protected areas sit beyond the reach of formal state authority in any meaningful sense. To make matters even more complicated, members of the *Forces armées de la république démocratique du Congo* (FARDC) and *Police Nationale Congolaise* (PNC) themselves often operate more like guerrilla armies than the guarantors of the state's monopoly over violence. Some of their officers maintain links with non-state armed groups and derive a share of the benefits of illicit resource extraction in and outside of protected areas. All of this makes the region uniquely challenging for the implementation of conservation initiatives.

Although the primary focus of this thesis is the politics of conservation governance in the milieu of conflict, a sub-theme looms large across the four empirical chapters: the politics of extraction, including, though not exclusively, the extraction of mineral resources. While the DRC is often described as a biologist's paradise, it is arguably also a geologist's heaven. The country has globally significant reserves of a number of metals – gold, cassiterite, coltan and diamonds, just to name a few. Mining activities in DRC go back to before the colonial era when people would mine gold to make gifts and trinkets for customary chiefs (Verbrugge and Geenen, 2019). However, the extent of extractive activities expanded greatly under the Belgians, then waxed and waned in tandem with various political and economic crises since the country's independence in 1960. Today mining is widespread across South Kivu. It occurs at various scales, ranging from artisanal, semi-industrial to large-scale industrial extraction. These activities take place outside, at the edge of, and inside protected areas, frequently

[2] CNRD is the latest incarnation of FDLR in the region of South Kivu.

under the protection of armed actors. By looking at how mining activities affect and are affected by the politics of environmental governance, this thesis contributes to an another body of literature on the 'extraction/conservation nexus' (Büscher and Davidov, 2013).

I conducted this research amidst a flurry of breaking news stories about environmental conservation in DRC. In 2019, the news website Buzzfeed[3] published a story about human rights abuses, including cases of rape and torture by park rangers, in the DRC's Salonga National Park. In April 2020, a convoy of Virunga's eco-guards was attacked by the Bahutu-led *Forces démocratiques de libération du Rwanda* (FDLR) rebel group which lead to seventeen deaths, including of twelve park rangers.[4] In February 2021, the Italian Ambassador to the DRC was killed while on a road while travelling back from the park.[5] In South Kivu, the conflict between indigenous Batwa people and the management of Kahuzi-Biega National Park has also received considerable media coverage with articles published in the Guardian[6] and Deutschlandfunk.[7] Since the Batwa forcibly returned to the park in late 2018, several international NGOs[8] have reported on the human rights abuses committed through attempts to dispel the Batwa from the forest once more (see Flummerfelt, 2022). These investigations have fuelled broader debates about the justness and wisdom of fortress or militarised conservation as methods to protect nature – something I will come back to at several points.

Talk of the importance of protecting the wider Congo Basin's rainforest, the majority of which is found in DRC, has reached fever pitch on the international stage. Not only is the country home to numerous rare and endangered species, alarm over the risk of runaway climate change (see Masson-Delmotte et al., 2021) has focussed attention on the DRC as a major global carbon sink. Governments signed a ten-year agreement at the United Nation's (UN) COP26 mega-conference in Glasgow to protect Congo's forests and reduce climate change from forest loss and degradation. $500 million dollars are to be provided during the first five years of the agreement.[9] As the threat of global climate change increases, it is likely the politics of environmental conservation in the DRC and the wider Congo basin are only going to become a hotter topic. Allegations of illegalities, corruption and environmental crimes have

[3] Buzzfeed, 'WWF Funds Guards Who Have Tortured And Killed People':
https://www.buzzfeednews.com/article/tomwarren/wwf-world-wide-fund-nature-parks-torture-death
[4] New York Times, '12 Rangers Among 17 Killed in Congo Park Ambush':
https://www.nytimes.com/2020/04/25/world/africa/congo-virunga-national-park-attack.html
[5] Reuters, 'A botched ransom attempt? Ambassador's death in Congo may not be what it seemed':
https://www.reuters.com/world/africa/botched-ransom-attempt-ambassadors-death-congo-may-not-be-what-it-seemed-2021-05-26/
[6] The Guardian, 'Gorillas, charcoal and the fight for survival in Congo's rainforest':
https://www.theguardian.com/global-development/2019/jul/22/gorillas-charcoal-fight-survival-congo-rainforest
[7] Deutschlandfunk: 'Hochgerüstete Wildhüter werden zur Gefahr':
https://www.deutschlandfunkkultur.de/nationalpark-im-kongo-hochgeruestete-wildhueter-werden-zur-100.html
[8] Notably MRG and FPP
[9] United Nations, 'COP26: Landmark $500 million agreement launched to protect the DR Congo's forest':
https://www.un.org/africarenewal/magazine/december-2021/cop26-landmark-500-million-agreement-launched-protect-dr-congo%E2%80%99s-forest

already sparked scepticism over whether the COP climate fund will be used effectively.[10] The politics of conservation governance also generates intense debate within Congo. Issues discussed in this thesis received coverage on local Congolese radio, online media outlets,[11&12] and on social media. Even in the final days I was preparing this PhD manuscript, local media reported that the provincial minister of mines for South Kivu was himself profiting from gold illegally extracted inside the Kalehe region of Kahuzi-Biega National Park's highland sector.[13]

By exploring two case studies of protected areas in a region where conservation, extraction and violent conflict overlap, I hope this research can improve our theoretical and empirical understanding of some of these issues touched upon in the international and Congolese press. The four empirical chapters and conclusion have provided some original (and critical) insights about the way in which conservation plays out in a region where multiple frontiers intersect and interact and the state fails to exert hegemonic territorial control. My findings should also be of value to the NGOs and policymakers trying to figure out how best to secure the protection of ecosystems and enhance the lives of the people living in conflict-afflicted regions. Perhaps a little indulgently, I also hope the research may be of interest to students at various stages of the research journey – as a tool to inspire and guide their own projects.

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[10] The Guardian, '"Lawless logging" in DRC raises concerns over $500m forests deal signed by Boris Johnson': https://www.theguardian.com/environment/2022/apr/18/lawless-logging-in-drc-raises-concerns-over-500m-forests-deal-signed-by-boris-johnson-aoe?CMP=share_btn_tw

[11] LaprundelleRDC's website can be found at: https://laprunellerdc.info/

[12] Radio Okapi's website can be found at: https://www.radiookapi.net/

[13] Media Congo, 'Sud-Kivu : très controversé, le ministre des Mines sous le coup d'une motion de défiance': https://www.mediacongo.net/articleactualite103511_sud_kivu_tres_controverse_le_ministre_des_mines_sous_le_coup_d_une_motion_de_defiance.html

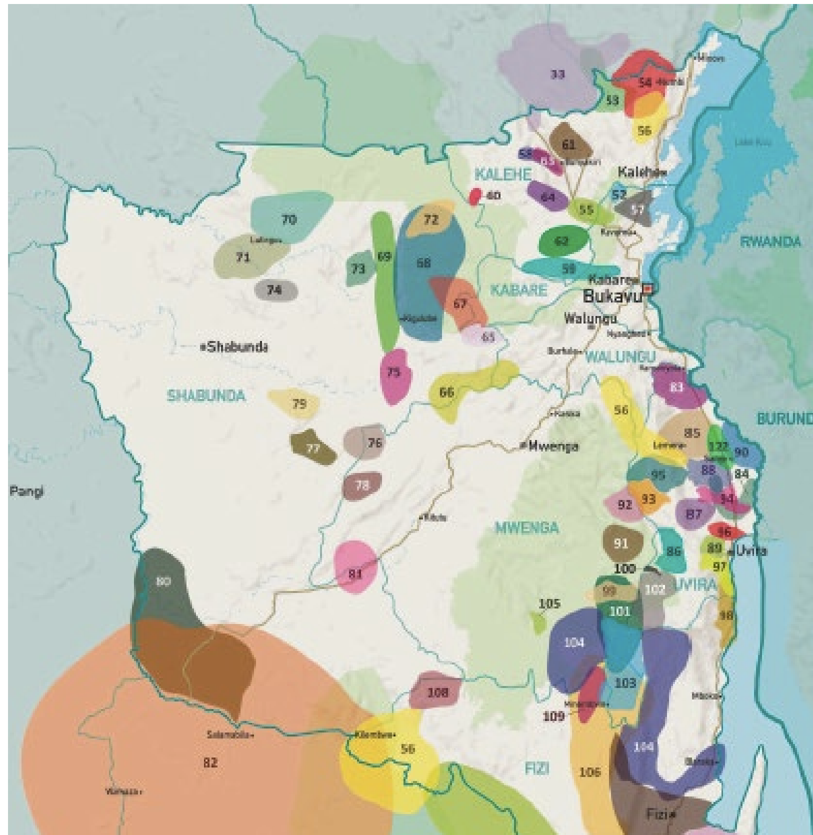


*Figure 1. Kivu Security Tracker (2021, 6) map showing armed groups' zones of influence (numbered and in multiple colours) and protected areas (in light green) across South Kivu Province, eastern DRC.*

## 2. A research journey: from desk to field (and back again)

This study did not start out as an investigation of the politics of conservation, extraction and violent conflict in eastern DRC. The original grant application I submitted for FWO with my supervisor Sara Geenen proposed to develop a new perspective of artisanal mining communities as part of wider socio-ecological systems. As is often the case with ethnographic research, the focus of the study changed dramatically when I started to interact with other researchers, delve deeper into the literature, and get an idea for the empirical realities on the ground. In the first year of research, Professor Kristof Titeca and Doctor Catherine Windey invited me to work on a VLIR project exploring the political ecology of forest resource management in DRC.[14] The project aimed to train Congolese researchers in the theory and methods of political ecology, while carrying out case study research in DRC's South Kivu and Tshopo provinces. I joined the project to lead the training and research in South Kivu in collaboration with our local partner, *Institut Supérieur de Développement Rural de Bukavu* (ISDR). Through discussions with Kristof and Catherine, I realised one way to address my

[14] During the course of my PhD, I was offered opportunities to work on projects with VLIR and the United State Institute of Peace. I gladly accepted to work on these projects, excited to collaborate alongside some colleagues with far more experience than I of social and political dynamics of eastern DRC. These projects also provided me with valuable experience of managing research teams, project budgets and skills to deal with complex stakeholders at local Congolese universities, NGOs and people in government institutions.

research question and deliver the project work would be to study mining activities that were taking place inside South Kivu's protected areas.

In February 2019, I travelled to the heart of North Kivu in Goma with Catherine as part of the project. We organised a workshop with a group of Congolese NGOs, researchers and civil society activists. One of the attendees, Jean de Dieu, the director of the Congolese NGO AfriCapacity, would go on to become a key informant throughout the research process. During this workshop I started to get a flavour for some of the grand challenges facing conservation in the region, which included mining and other extractive resource uses, including for charcoal, timber and bushmeat. After the workshop, I travelled by boat down to Bukavu, South Kivu, to conduct preliminary key stakeholder interviews for a scoping study. Over a series of discussions, I learned not just about the impacts of illicit resource uses inside protected areas, but also about local reactions to conservation governance, including from the non-state armed groups often located in those areas. The information gathered during this initial trip provided the inspiration for a book chapter I published in the edited volume *Conjonctures de l'Afrique centrale 2020* with Jacques Fikiri. The chapter explores forms of resistance and acquiescence at the extraction/conservation nexus in eastern DRC's Itombwe Nature Reserve (Simpson and Fikiri Zirhumana, 2020). Although the full chapter does not form part of this final thesis, the work that went into it informed my analysis and approach. Some sections of this book chapter have been added to the introduction and conclusion.

I embarked on my first proper fieldwork in August 2019. During this trip, I conducted several fieldtrips to villages around Kahuzi-Biega National Park's highland sector with institutional support from the *Centre d'Expertise en Gestion Minière* (CEGEMI) at *Université Catholique de Bukavu* (UCB). I then conducted an additional month's fieldwork around Itombwe Nature Reserve as part of the VLIR project with support from ISDR and the local NGO AfriCapacity. I had the intention of studying the political economy of artisanal mining inside South Kivu's protected areas. However, once I started to conduct interviews, one issue came up with such frequency it became impossible to avoid: namely, the ongoing conflict between Kahuzi-Biega National Park and the indigenous Batwa people which had forcibly returned to the forest in October 2018. Although some Batwa had been mining gold inside the park, their conflict with the park management is much more complex than over access to minerals. It involves a far wider range of natural resources – and, crucially, access to land – and dates back to the 1970s when the Batwa were expelled from the forest. In the fourth chapter of this thesis, I describe this ostensibly 'classic case' of resistance to conservation in some detail.

Before travelling to the field, I conducted an extensive review of the large body of literature on resistance to conservation. I was especially impressed by ethnographic accounts written in the tradition of the anthropologist and political scientist James Scott (1985, 1990). In particular, I was excited by those works which deployed his metaphors of 'everyday resistance' and 'hidden transcripts' to probe struggles surrounding conservation governance (see Peluso, 1992; Holmes, 2007; Cavanagh and Benjaminsen, 2015). They drew upon Scott's ideas to highlight the infra-political content of banned livelihood activities inside protected areas. They suggested these minor or covert actions should still be viewed as acts of protest, rather than petty crime. However, when I arrived in communities at the edge of Kahuzi-Biega National Park, what I found was about as far from covert as could possibly be. The conflict between the Batwa and ICCN was more overtly violent than about anything I had witnessed.

Since the conflict began, eco-guards, government soldiers and numerous Batwa have lost their lives. At the same time, hundreds of hectares of forest have been destroyed in the park's highland sector, a region home to a significant population of eastern lowland gorillas. This alarming conflagration led me to the research question presented in chapter four: what causes covert forms of resistance and slow violence to burst suddenly onto the centre stage? As it stands, this chapter sits comfortably within the existing literature on fortress-based and militarised forms of conservation. That probably could not be said for chapter five.

My understanding of key debates within the broader discipline of political ecology evolved considerably throughout the writing process. While working on the fourth chapter, I started to find some of the academic and NGO literature on indigenous peoples and resistance to conservation to be rather idealistic. Militarised or fortress conservation, on the one hand, were typically presented as domineering and oppressive forces. Indigenous peoples' resistance to it, on the other hand, was seen as emancipatory and liberating. As my understanding of these problems developed, I started to believe some of the more critical conservation scholars and activists might make the very mistake they often warn against: namely, setting up simplistic narratives with states and their NGO backers dominating the people living at the edge of protected areas, who in turn oppose conservation rule. Inspired by several critical reviews, I started to question whether a domination/resistance narrative provided an accurate description of the dynamics present in Kahuzi-Biega National Park – but also for conservation in violent frontiers more broadly. While the Batwa represented what seemed a clear-cut case of collective mobilisation against the park, the majority of the non-state armed groups operating with its boundaries did not. As I read more widely, I discovered several recent contributions resonated with my observations. I was particularly impressed by the writings of Kristof Titeca, Alice Kelly and Louisa Lombrd, which I felt painted a less binary picture. Readers will notice references to these authors scattered throughout the thesis.

With these and other studies in my back pocket, I conducted a second round of fieldwork from April to June 2021. As part of the same VLIR project, I lead an additional training workshop and collective fieldwork with two local researchers around Kahuzi-Biega National Park. We sought to understand the factors leading to the huge number of armed groups in the park's highland sector. The data gathered provided the basis for chapter five, in which I question popular 'political ecological' analyses of militarised conservation in the literature. In this chapter I argue armed groups inside the park are, in the majority, not motivated by any desire to resist conservation rule. Rather, they are attracted to the park due to the friction of its terrain as a hideout, abundant mineral resources, and location close to international borders. On top of this, far from calling for the demilitarisation of conservation – as some activists and academic commentators have done – many people living around the park boundaries called for more (not less) armed eco-guards to secure the forest perimeter. Other people aspired to work as eco-guards in the future. In this sense, militarised conservation was occasionally seen as potential source of development and stability. Simultaneously, the militarised approach to conservation itself was itself implicated in extreme violence at certain points in time, most notably during attempts to expel the Batwa from the forest. The aggregate impacts of militarised conservation on security are therefore likely to be ambivalent. I hope this argument can help challenge some mainstream accounts which broadly castigate the use of militarised conservation in violent frontier regions. In eastern DRC as well as in other similar contexts, I suggest there are no clear alternatives at present.

Chapter six is based on an article published with Lorenzo in the journal *Political Geography*. It presents an alternative approach to conservation in eastern DRC – community conservation. In addition to my own PhD research, this chapter draws on data gathered as part of the separate research project with VLIR around Itombwe Nature Reserve in November 2019. It also integrates the findings of research conducted for a USIP project in May 2021. Like the literature on fortress conservation and resistance to it, some of the literature on community-based conservation also takes a romantic turn, though in a different way. Proponents of community-based forms of natural resource governance may exaggerate the potential of conservation projects to create new kinds of people who care about nature. Community conservationists could also be seen to overstate the degree to which conservation is a priority for indigenous peoples. During the research, I was surprised to discover one community had discontinued its participation in the reserve and allied itself with an industrial mining company. This both challenged my preconceived ideas about community conservation (i.e. that people would support it) and industrial mining (i.e. that people would oppose it).

## 3. Conceptual framework: conservation at a violent frontier

The four empirical chapters draw upon a conceptual toolbox rooted in anthropology, political ecology and critical agrarian studies. What binds them is a focus on the politics of environmental conservation – and, to a lesser extent, mineral extraction – in the milieu of state-weakness, conflict and violence. I set out to illuminate how conservation is implemented under these conditions and how, in turn, people respond to it. The analytical lens I have developed operates at three separate, though related, levels: the international capitalist system, the Congolese nation state, and at the level of local communities.

At the international level, I frame contemporary conservation as an activity that takes place on a commodity frontier with links to wider capitalist networks. Commodity frontiers are the regions in which new land and resources are integrated into wider markets. Wider capitalist networks make possible the processes of territorialisation on commodity frontiers. These networks bring together diverse actors – private philanthropists, multilateral development agencies, transnational corporations, NGOs, state ministries, provincial authorities – in the complex webs of interaction that fund and implement modern-day conservation projects. Different, though not entirely unrelated, networks surround the extraction of metals and hydrocarbons. They all form part of a world system comprised of core and periphery regions which facilitates continual capitalist expansion (Wallerstein, 2011; Verbrugge and Geenen, 2020). This thesis also highlights a variety of more locally oriented extractive frontiers, which link up to domestic rather than international networks. These include timber, charcoal, bushmeat and other resources located within protected areas but consumed locally. Taken together, domestic and global commodity frontiers form a constellation of frontiers which intersect and interact in various ways (Eilenberg, 2014). One of chapter three's core contributions is to show how adaptations occur at the level of capitalistic networks of value which enable commodity frontiers to overlap. In the case of eastern DRC, this involved a transition away from fortress conservation and industrial mining toward more consensual forms of conservation and semi-industrial and artisanal scales of mining.

At the level of the nation state, I look at how this international conservation commodity frontier touches down in a region where the government fails to maintain security or provide even basic public services for its citizens. I present somewhat of an exceptional case here: eastern DRC is no ordinary region even for African standards. State operatives, including the national army and police force, are themselves often involved in violent forms of predation and resource extraction. It is no coincidence President Mobutu appeared on the covers of Jean François Bayart's books on the 'Politics of the Belly' and the 'Criminalisation of the State in Africa' (Bayart, 2009; Bayart et al., 1999). By way of government neglect, many people in the region are exposed to slow and structural forms of violence (see Nixon 2011 and Galtung 1969) which limit their life chances while providing few opportunities to affect change. As a result of decades of conflict, direct and physical forms of violence are also pervasive in eastern DRC. Looting, banditry, killings and sexual violence have become all-too-frequent parts of everyday life. In South Kivu, territorial control is fragmented by the presence of multiple non-state armed groups. Many of these groups maintain close linkages with political and military elites who use the disorder of conflict as an instrument to consolidate personal power (Chabal and Daloz, 1999). An additional contribution of chapter three is to demonstrate how the weakness of the nation state has in part enabled the considerable overlaps between different commodity frontiers, in particular for mining and conservation.

At the local level, the conservation commodity frontier leads to various forms of territorialisation: in the case of my analysis, fortress and community-based conservation. These interact with a mining commodity frontier that produces territorialisation at three scales – artisanal, semi-industrial, and large-scale mining. One of the most dramatic social effects of expanding commodity frontiers is the forced displacement of populations from their land and resources. The political ecology literature on conservation is replete with examples of how displacements lead people to rise up and resist the restrictions that environmental governance imposes on their lives, sometimes through violent means. In chapter four, I build on this work by highlighting the intricacies between covert and overt resistance and slow and sudden violence around a militarised conservation enclosure. Yet, as I show in chapter five, resistance to coercive conservation is probably not the main source of violence and armed mobilisation inside national parks and nature reserves located in eastern DRC. Rather, the agency of non-state armed groups is shaped by broader social structures, including, but not exclusively, the presence of high-value mineral resources in the geographically isolated 'rough' (Korf, 2011) terrains created through protected area designation and enforcement.

Resistance and armed mobilisation are not the only responses to the expansion of commodity frontiers. Different forms of territorialisation on commodity frontiers can produce various opportunities for the people affected by them, some negative and some positive, and generate diverse responses 'from below' (Hall *et al.*, 2015). There are people who seek to incorporate themselves into the new economic and political arrangements that emerge in frontier regions, even if the terms of incorporation are less than desirable. Where the state is weak or absent, conservation and mining projects can even establish a sort of social contract between people and protected areas or people and mines, filling in for what would normally be provided by a functioning government. These contracts can be explicit and/or implicit. They often involve people accepting restrictions on their lives in exchange for certain benefits in terms of predictability, security, and development. In a region where mining activities (at

different scales), conservation efforts (in different forms) and violent conflicts (of different intensities) are widespread, people's contractual preferences are far from predetermined.

The central objective of this thesis is to explore how the global conservation commodity frontier touches ground in a violent frontier of state control where extractive processes also compete over land and resources. The various empirical chapters zoom in on the ways in which different local actors respond to the implementation of conservation projects in the form of protected areas, ranging from resistance to incorporation. The sub-research questions which guided the four empirical chapters are as follows:

- **Chapter 3:** What enables the extensive overlap between 'double' conservation and mining commodity frontiers in eastern DRC's South Kivu Province?
- **Chapter 4:** What are the relationships between overt and covert resistance and slow and sudden violence in Kahuzi-Biega National Park?
- **Chapter 5:** In what ways do individual agents and wider social structures influence the mobilisation of non-state armed groups and deployment militarised conservation in Kahuzi-Biega National Park?
- **Chapter 6:** How is community conservation implemented and received in the violent frontier region of Itombwe Nature Reserve?

## 4. Outline of the thesis

Rather than forming a single narrative in a monograph structure, this thesis comprises a collection of chapters that have been published separately in various academic journals, institutional outlets and blogs. The first two chapters cover the methodology and overarching conceptual framework. The latter four chapters all present empirical data collected in and around protected areas in eastern DRC's South Kivu Province. Given these also exist as stand-alone publications, they all have their own introductions, theoretical frameworks, methodologies, discussion sections and conclusions. An overall conclusion bookends the chapters and summarises my critical contributions, while offering some practical steps for how conservation could be better implemented in the future in eastern DRC.

**Chapter 1: Methodology.** In the first chapter, I provide a high-level overview of the research paradigm, design and methods used to study conservation at a violent frontier. I address how the research is grounded in a critical realist epistemology with elements of pragmatism. I explain how my qualitative case study design also incorporates elements of ethnographic and narrative research typically used in the study of social groups, in the case of the former, and individuals, in the case of the latter. I then describe the strategies used to gain access to and sample respondents for the research. Methods of data collection including semi-structured interviews, focus groups, participant observations, and document analysis are discussed next. Following that I summarise the techniques used to analyse and ensure the credibility of the data, and shed light on some of the challenges of ensuring data is trustworthy when working in insecure regions. In the section after that, I reflect on research ethics and my own axiological assumptions and positionality. Finally, I describe four main limitations for the study: namely, the difficultly of working through translators, time constrains, the use of qualitative methods alone, and the issue of generalisability.

**Chapter 2: A conceptual framework.** In the second chapter, I describe the unique conceptual framework I have developed to study conservation in a region afflicted by war, corruption and the commodification of natural resources. Firstly, I typify conservation as an activity that takes place on a commodity frontier which links up to global capitalist flows and networks. In a resource-rich region like eastern DRC, the conservation commodity frontier inevitably entangles with other resource frontiers – most notably those that concern the extraction and processing of mineral resources. In the context of eastern DRC, I highlight how this 'constellation' of resource frontiers touches down in a region where 'shadow' or 'rhizome' state dynamics dominate. Finally, I conceptualise how the interaction between this state system (or the lack of it) and capital investments for conservation and mining, results in diverse responses 'from below'. These range from covert and overt resistance to attempts at economic incorporation and the formation of new (social) contract-type relationships.

**Chapter 3: 'Double' conservation and mining frontiers in eastern DRC.** In the third chapter, I make a contribution to the literature on commodity frontiers by exploring what causes two different types of frontier overlap. Concretely, I focus on intersecting 'double' commodity frontiers produced through biodiversity conservation and mineral extraction which increasingly compete for control over land and resources in the Global South. I frame commodity frontiers as organised through the territorialisation of rural landscapes via different types of protected areas (strict, flexible) and multiple scales of mining activities

(artisanal, semi-industrial, industrial). With reference to two cases from eastern DRC, the chapter disaggregates processes of territorialisation both at and between conservation and mining frontiers. I propose flexible approaches to protected area management and artisanal and semi-industrial scales of mining are territorial adaptations that enable frontiers to coexist. Weak states, especially those that have lost their monopoly over violence, are also likely to lead to double frontiers. Overall, the increasing convergence of mining and conservation further pluralises authority where government capacity is already fragmented.

**Chapter 4: From slow to sudden violence in Kahuzi-Biega National Park.** In the fourth chapter, I describe a case of resistance to fortress conservation. I build on existing debates by exploring how conditions of 'slow' violence and practices of covert resistance that surround protected areas can over time be transformed into forms of overt resistance and 'sudden' violence. I show how indigenous Batwa people's decision to violently reoccupy parts of the park's highland sector can be explained by three factors: the failure of peaceful strategies of rightful resistance to bring about meaningful change; an increase in the level of threats to Batwa livelihoods, identity and dignity over recent years; and the arrival of opportunities for the Batwa to forge commercial and military alliances with different stakeholder groups who could support their struggle. Rather than romanticizing the Batwa's actions, the chapter shows how their struggle has ultimately intersected with elite interests, politico-military networks and wider conflict dynamics in a way that has led to widespread environmental destruction. A sharper focus on the intricate relationships between different forms of violence and resistance could help to better mitigate conservation conflicts in the future.

**Chapter 5: Agency and structure in militarised conservation and armed mobilisation at a violent frontier.** In chapter five, I add to ongoing debates over the relationship between militarised conservation and armed mobilisation surrounding protected areas in violent frontiers. Presenting evidence from war-torn eastern Democratic Republic of Congo's Kahuzi-Biega National Park, I show that while fortress conservation and its militarised enforcement have no doubt contributed to at least one major incident of violent resistance over recent years, they are by no means the main source of armed groups in the park. Taking inspiration from structuration theory, I demonstrate how socio-structural features of the landscape in which the park is embedded provide a stream of motivations and opportunities which stimulate armed rebellion. Individual agents serve to reproduce and/or reshape these structural conditions through the unintended consequences of their actions, thus setting off a self-reinforcing feedback loop. Although militarised conservation interacts with armed mobilisation in the Kahuzi-Biega landscape, it is probably not integral to it. In some instances, armed eco-guards may even contribute to greater security and stability.

**Chapter 6: Conservation, extraction and social contracts at a violent frontier.** In chapter six, I present empirical data from communities living in and around Itombwe Nature Reserve. This is a rare case of a more consensual, participatory conservation project in a region where militarised conservation dominates. I argue that the reserve has both been presented and perceived as a sort of social contract that normally binds state and citizen. In other words, certain benefits would be provided in exchange for people accepting certain restrictions on their livlihoods. The prospects of development and security embedded within such contracts can generate strong local support in the initial phases of project implementation. Yet, as with Rousseaean conceptions of the original social contract, there are likely to be consequences

when conservation contracts fail to deliver on the expectations of people who are subject to them. The case of Itombwe Nature Reserve demonstrates how under circumstances where conservation contracts are left unfulfilled for extended periods, alternative contractual partners might become comparatively more attractive, such as the extractive industries.

**Conclusion.** A final conclusion weaves together the main empirical and theoretical contributions of the thesis. The first section highlights the analytical benefits of looking at the conservation commodity frontier as part of broader 'constellations' of frontiers that connect up to wider capitalist networks. The second section discusses the importance of understanding the state context in which the conservation commodity frontier touches ground: in the case of this thesis, eastern DRC's South Kivu province. Specifically, I highlight the importance of viewing protected areas – and the violence they create – as existing within a broader political economy of armed mobilisation and violent extraction. The third section assesses the relevance of my findings for broader debates about fortress and community conservation. After that, I reflect on how the practical implementation of conservation could be improved in eastern DRC. I lastly offer reflections on my positionality and how the research has affected my subjective experience as a human being.

# CHAPTER 1: METHODOLOGY

## 1. Introduction

This chapter on methodology describes how data was collected to provide answers to the research questioned posed in chapters three to six. Although each of the four empirical chapters includes a separate methods section, I provide a broad overview here of the methodology for the entire thesis. I begin with a discussion of my research paradigm, grounded in a mixture of pragmatism and critical realism. Following that I describe how my qualitative case study research design combines with elements of narrative and ethnographic approaches. Next I describe the strategies used to negotiate access and sample communities and respondents while in the field. I then outline the specific research methods deployed to gather qualitative data. I then describe my analytical technique, which involved an iterative approach combining induction and deduction. After that I explain how I ensured the rigour of the findings: through prolonged engagement in the field, triangulation of different sources, continual peer review, and by analysing negative cases or interpretations. Following that, I reflect on ethical challenges and my positionality as a white European man doing fieldwork in eastern DRC. Lastly, I describe the study's limitations.

## 2. Research paradigm

Thomas Kuhn famously described a paradigm as a set of generalisations, methodological processes, and beliefs held by a community of specialists (Kuhn, 2012). Most social science studies fit within four paradigms, which range from positivism, post-positivism, critical theory to constructivism (Guba and Lincoln, 1994). Researchers working within the tradition of positivism tend to believe in scientific determinism and cause and effect rationality. They zoom in on the relationships between specific variables (Slife, Williams and Williams, 1995). They work from the top-down, developing hypotheses based on theories and then test those hypotheses using quantitative data. Positivists are typically associated with a pure realist ontology and try to ascertain a single reality that exists independent of the observer. Like positivists, post-positivists believe in a single empirical reality. However, they concede this reality can only ever be imperfectly known in probabilistic terms. Post-positivists also combine quantitative with qualitative methods to address a research problem.

Critical theorists highlight the changeable nature of reality. They are interested in how that reality is shaped by wider social, political, cultural and economic structures (Guba and Lincoln, 1994). They investigate that reality by way of a dialogue between the investigator and the research subjects. Constructivists go a step further than critical theorists. They propose reality is entirely relativistic, socially constructed in different ways by different people (Guba and Lincoln, 1994). Constructivists use entirely qualitative methods to understand the complexities of phenomena, ascertained through the subjective views of their research participants, which are shaped by social interactions and personal histories. Constructivists develop research from the bottom up rather than the top down, identifying categories, themes and generalisations through their respondents' perspectives (Denzin, 2012). In stark

contrast to positivists, constructivists highlight multiple realities consistent with the lived experiences of diverse people.

Political ecologists have critiqued positivist approaches. They argue pure quantitative data can missrepresent the views of the people most affected by environmental crises. Some political ecologists have criticised romantic notions of ‘wilderness’ for creating a false dichotomy between people and nature (Adams and McShane, 1996; Neumann, 1998). Even more critical accounts contend narratives of conservation crises are socially constructed to justify more coercive forms of environmental management (see Robbins, 2011; Schuetze, 2015; Vasile and Iordăchescu, 2022). I believe some of these standpoints risk going too far in the opposite direction to positivism (see also Woolgar, 1988 for example). In framing the environment as socially constructed, i.e. as something relativistic, they could serve to minimise the severity and scale of environmental issues, such as climate change and species loss (Proctor, 1998; Crist, 2004). Such issues fundamentally depend on pure scientific knowledge to diagnose and mitigate, including, though not exclusively, quantitative models and methods. Without climate science, for example, how would we know climate change is occurring? Given almost all political ecologists are left-leaning, it is paradoxical to consider how extreme constructivist interpretations could also serve to fuel some of the post-truth accounts of environmental crises espoused by extreme right-wing politicians.

It is important we acknowledge an empirical reality exists that can be measured, however imperfectly. At the same time, we need to recognise the multiple interpretations of that reality. With this in mind, I have opted for a critical realist approach, a worldview which could be situated somewhere in between constructivism and post-positivism – a sort of ‘third way’ if you will. Critical realism is popular among political ecologists (see Büscher and Fletcher, 2020). It combines the belief in a real world independent of the observer with an appreciation that all knowledge is at least partially constructed. This is not to say a single reality is absent, just that our interpretation of that reality is, to some extent, always going to be mediated by wider political, economic and social structures (Bhaskar, 1997). It is in this regard that critical realists take the relationship between knowledge of power seriously.

I am also a research pragmatist, a pluralist who tends to opt for ‘what works’ in a practical sense. Thus, I am not committed to any particular vision for how research should be conducted. Pragmatists acknowledge the numerous ways we can understand and investigate reality. They believe no single point of view or method can account for the entire picture. The research question usually determines the research paradigm and methodology, not the other way round. Pragmatists neither prioritise qualitative nor quantitative methods, which often leads them to adopt a mixed approach to address different aspects of a research problem. In the analytical phase, pragmatists can combine induction and deduction, alongside different combinations of qualitative and quantitative data. They not only use different methods, but even blend worldviews and philosophies to gain a more holistic perspective (Creswell and Clark, 2017). As a result, pragmatists are often agnostic about theory.

There are differences between the critical realist and pragmatic standpoints, although they bear many similarities. While critical realists tend to be more concerned with theorising the broader political economic structures within which environmental and social problems occur, pragmatists zoom in on the empirics (Proctor, 1998). This affects the type of solutions they

typically recommend. While critical realists usually prioritise fundamental changes at the systems level, pragmatists look to practical actions over shorter time scales. I am convinced we require a blend of both perspectives, a mixture of the long and the short, to meet the enormous (and urgent) environmental, social and political challenges in violent frontier regions like eastern DRC. I will come back to these differences in the concluding chapter.

## 3. Research design

Pragmatists frequently adopt a mixed methods approach. However, they can also opt for pure qualitative or quantitative methods if that is most likely to satisfy their research question. On this basis, I have adopted an entirely qualitative design. Qualitative research represents 'an intricate fabric composed of minute threads, many colours, different textures, and various blends of material' (Creswell 2013, 42). It works best when a problem needs to be explored in all its complexity, where variables cannot easily be measured in numerical terms. This complexity is captured through conversations with people who have direct experience of the research topic. Qualitative research is particularly useful when theories are inadequate or do not yet exist to describe certain aspects of a phenomenon. I decided upon a pure qualitative approach as many of the processes I wanted to observe take place mostly in the shadows and involve multiple hidden discourses. Social dynamics like these would be almost impossible to trace using quantitative techniques.

I opted for a case study research design combined with elements of ethnographic and narrative research. Case study research involves the researcher exploring a single bounded system (i.e. a case) or several bounded systems (i.e. cases) over a finite period of time (Creswell 2013). This allows an understanding to develop of how a group of individuals work together in a project, activity or organisation, and the wider impact of that activity on broader social structures. In my research, the cases are Kahuzi-Biega National Park and Itombwe Nature Reserve. These protected areas represent what can be described as 'instrumental cases' (Creswell, 2013), namely, they were chosen to illustrate different approaches to conservation in a single violent frontier region. The first, Kahuzi-Biega National Park, can be considered a classic example of an exclusionary fortress conservation area enforced through military techniques and technologies. The second, Itombwe Nature Reserve, represents a rare case of a community conservation area established amidst the milieu of protracted conflict. Some case studies encompass multiple embedded units or levels of analysis within a single case, while others report only on a single holistic case at the macro-level. My thesis takes the former approach – it explores dynamics at the level of individuals, villages, groupements and chiefdoms surrounding the two fundamental cases.

The research takes a case study approach. However, it also combines techniques associated with ethnographic and narrative research to study units below the case level. Ethnographic research typically involves examining a culture sharing group or subcultural group in detail, over an extended period of time. A culture sharing group contains individuals that share rituals, customary social behaviours and language. An ethnographer observes these routines by immersing themselves in the group (Fetterman, 1998). Ethnographic approach was used to understand the different communities and ethnic groups living around my two case study sites. The thesis effectively comprises several micro-studies of the culture-sharing groups that

surround the two protected areas. For instance, the groupements of Kigogo and Cirere represent culture sharing groups surrounding Itombwe Nature Reserve. The Batwa are an important culture sharing group in Kahuzi-Biega National Park.

This research also combines elements of narrative inquiry where 'the inquirer focuses on the stories told from the individual and arranges these stories in chronological order' (Creswell, 2013, 102). A narrative approach is appropriate when the life and experience of a single individual is needed to illuminate nuanced information about a specific issue (Clandinin and Connelly, 2004). Participants in narrative research are chosen to illustrate a particular problem, for example the mobilisation of armed groups around a protected area. To gather data for a narrative study, the researcher must engage in conversations and make observations of the individual being investigated. The narrative component of this thesis is apparent in the vignettes of different rebel leaders provided in chapter five.

## 4. Fieldwork

I travelled to eastern DRC for fieldwork on three occasions. The first was a relatively short scoping study in February 2019 to carry out key informants interviews. During this phase I decided on Kahuzi-Biega National Park and Itombwe Nature Reserve as case study sites. The core fieldwork was conducted over six months from August 2019 to February 2020. Over this period multiple trips were made to villages around the protected areas and other stakeholders were engaged in Bukavu and Goma. A third trip took place from the end of March to the start of June 2021 during which I conducted fieldwork around both protected areas with teams of local researchers. In the next two sub-sections, I provide an overview of how I negotiated access during fieldwork and my sampling strategy.

### *4.1. Negotiating access*

Gaining access to respondents and study sites is difficult in violent regions. A European researchers' identity poses advantages and disadvantages when working in Central Africa: it can provide access to individuals local people likely would not, but also draws unwanted attention in insecure zones and attempts to extort money through corruption. There are also pros and cons to working in a region where power is fragmented. Large swathes of territory in eastern DRC are under the control of non-state armed groups. Banditry and kidnapping are rife. In territory where the government does have greater control, the police and national military – and conservation guards – often use their power to pursue personal economic agendas. Moreover, power is not only concentrated within the state but also in customary institutions and structures. On the one hand, this plurality of authorities forces the researcher to engage in numerous negotiations to access certain regions and populations. This is time-consuming and expensive. On the other hand, the weakness of state bureaucracy makes it possible to carry out interviews on topics that would probably be out of bounds in more authoritarian regimes, such as over the border in Paul Kagame's Rwanda (Paluck, 2009).

My access strategy incorporated a number of tools and techniques. When I entered a new field site, I always introduced myself to the local authorities. According to Jourdan (2013, 31),

it is especially important to talk to military officials to reduce the chance of activities being perceived as a security threat. Failure to do so could result in difficulties later on, prohibiting access to key regions, communities and people. In towns and villages where the state had a strong presence, I would always introduce myself to *Direction Generale des Migrations* (DGM), *Agence nationale de renseignements* (ANR), FARDC and the customary chief or 'Mwami'. These introductions could take quite some time, up to one or two days on some occasions. In regions where the politics of the belly dominate, dealing with these separate authorities almost always also involves negotiating a series of informal payments.

In exchange for their support, I would usually give relevant authorities some money – typically ranging from $5-$20 – after which they would stamp and sign my *Ordre de Mission*. Travelling to and from field sites, I would also make various informal payments at the roadblocks scattered across eastern DRC's transport routes. A key skill was to know when to push back and when to accept a payment. Sometimes people would begin by demanding a totally unreasonable amount, into the hundreds of dollars, then reduce as we talked. In regions where the state had very little control, I would also introduce myself to the commander of the local defence or Mai Mai, which would result in additional informal payments. As a result, research is not cheap in eastern DRC. The structures in place for outsiders to travel in other parts of sub-Saharan Africa simply do not exist. Malawi is even poorer than DRC according to some metrics and yet it is relatively easy to navigate as a shoe string traveller.

Many people in South Kivu maintain a strong affiliation with their social or ethnic group. They are more likely to trust someone from their group than another. Getting insider knowledge about the histories and politics of different groups was essential. According to Hammersley and Atkinson (1995), ethnographic researchers can gain access to cultural groups through 'gatekeepers', i.e. people with insider status. Gatekeepers provide initial contact with a group and help the researcher to identify suitable research participants. This had important implications for my choice of field assistants. On some occasions, there was no issue working with an assistant from a different ethnic group to that of the community I was working in. For example, I could work with Balega people in Batembo areas without problem. However, it would have been impossible – and dangerous – to bring an assistant from the Banyamulenge community on a research trip to Babembe villages inside Itombwe Nature Reserve. This is due to ongoing conflict between certain members of these two social groups. It was therefore useful, where possible, to choose assistants who could themselves act as gatekeepers; who had knowledge, experience and connections to the communities themselves. Moreover, outside of Bukavu, most people can speak a little French, but are more fluent either in Swahili or one of the local languages spoken across South Kivu. It also therefore helped to select research assistants who could speak the dominant language(s) in the areas I was working in.

Researchers, it is argued, should always be transparent about their research objectives. This can reduce the chance of being misidentified as a spy, businessperson, state official or NGO worker (Sluka, 2008). I do not challenge this maxim as a general rule. However, conditions also exist where it is best not to be totally open about a research project. As noted by Thomson, Ansoms and Murison (2013, 5), 'The ability to fly under the radar of authorities, whether legitimate or not, is an important personal attribute when doing research that seeks to understand war and conflict.' I initially tried to work in collaboration with the Congolese conservation agency ICCN. However, it became clear they would only allow this if I paid

certain officials large amounts of money. In the end, I worked around ICCN, avoiding them as much as possible. When local authorities asked about the subject of my research, I learned to keep my answers vague, given the sensitive nature of some research questions. During a fieldtrip to Itombwe Nature Reserve in May 2021, I even bought the research team t-shirts with 'Sociology Research Project' printed on the front of them – something sufficiently imprecise to not give the game away, though plausible enough not to arouse suspicion. These t-shirts deflected the attention of state agents and non-state armed groups away from our true research objectives, which involved investigating illegal resource uses inside protected areas. At times, the fact I could not speak perfect French or local languages played in my favour: even the most hardened state officials eventually got bored when trying to communicate with a naïve Mzungu who appears not to understand a word they are saying.

Under conditions of risk, people often suppress their opinions and report a doctored or 'public' transcript. Public transcripts are designed to give the surface-level impression of consent, particularly in open places under the gaze of authority figures (Scott, 1990). But I had to get under this 'mask' of curated speech in order to learn what people really thought and felt. Inspired by Nyenyezi Bisoka (2016), wherever possible I decided to conduct interviews in discrete spaces or in the privacy of people's own homes. Respondents were also more likely to open up as a result of long-term engagement. I maintained research relationships with several informants from the first scoping study through to my subsequent fieldtrips in 2019/2020 and 2021. People unwilling to disclose certain information during a first interview, often divulged more in subsequent interactions once a sense of rapport had been established. I could then even ask follow-up questions via WhatsApp or email once back to Europe. This strategy also helped to triangulate specific research finding during the write-up.

### *4.2. Sampling strategy*

Related to access is the issue of sampling. For this research project, I opted for a 'purposive' sampling strategy. Rather than enabling statistical inferences to be made about a given population, a purposive sample is designed to intentionally identify a selection of people who can provide information about a given problem under examination (Creswell, 2013). Frequently used in qualitative research, this technique involves the selection of cases, communities and individual respondents based on their chronological knowledge of the history of a cultural group, including key individuals within the group, and the context in which events and behaviours play out (Hammersley and Atkinson, 1995).

Kahuzi-Biega National Park and Itombwe Nature Reserve were purposively sampled as examples of different conservation approaches in a violent frontier. These areas are huge – the latter 5,732 sq.km, the former 6,000 sq.km. It was therefore impossible to carry out research in all communities that surround them. Around Kahuzi-Biega National Park, research took place in numerous villages around the park's highland sector in the territories of Kabare and Kalehe. These ranged from villages near ICCN's park headquarters to villages where patrol posts had recently been abandoned. For Itombwe Nature Reserve, all research took place in villages dotted across Mwenga and Shabunda territories. These ranged from villages near the reserve headquarters to villages entirely under the control of armed groups. Security was often volatile and it was too risky to work in certain areas. Parts of Itombwe Nature Reserve

were in a state of active conflict during the research. Some research sites were therefore selected first and foremost down to feasibility of access.

Purposive sampling was also used to identify key respondents. Informants were generally selected based on the advice of my research assistants. When entering a village, the team would first introduce themselves to the chief and explain the purpose and nature of our research. A snowball sampling strategy was then used whereby informants helped me identify additional informants based on the questions asked. The chief would usually propose people who knew about the topics I was interested in. However, I had to proceed with caution: chiefs had strong views about the issues I was discussing and tended to point me in the direction of people they agreed with. Chiefs might also have been involved in activities they did not want me to find out about. One way around this was to select a few people randomly for interviews who the chief did not recommend. I also made sure to interview a variety of people from different genders, age groups, professions, and levels of seniority. In some areas, women refused to participate in focus groups, for example, in villages in the chiefdom of Wamuzimu at the edge of Itombwe Nature Reserve. It was unclear whether this was because women did not want to participate, or because men pressured them to abstain. One way around this was to include more women in the semi-structured interviews.

Snowball sampling requires a willingness to pursue leads as the research develops. New informants would often walk into an interview half way through. When this happened, I would either bring them in as an additional participant or talk to them afterward. Sometimes opportunities would arise during interview conversations themselves. When I went to meet a prominent Batwa chief in Kalehe, he first agreed to a one-on-one interview with only his personal security guards surrounding my assistant and I. After the interview, he suggested I visit his settlement inside Kahuzi-Biega National Park the following day. This was not a part of my research plan, but still a valuable opportunity I could not afford to miss.

## 5. Research Methods

I gathered multiple perspectives from stakeholders operating at various hierarchical levels, on topics ranging from the work of members of conservation NGOs to the lived experiences of peasants living in and around protected areas. The research was based on four methods often combined in ethnographic research: semi-structured interviews, focus groups, observations and informal interactions, and document analysis. The scoping phase of the research (February 2019) involved semi-structured interviews with key stakeholders in the town of Bukavu and document analysis. All four methods were used extensively during the two main periods of fieldwork (August 2019-February 2020 and March-June 2021). These methods gathered different forms of data which were later triangulated in the data analysis.

A key method to understand the lived experiences of people living around protected areas was the semi-structured interview. Semi-structured interviews were conducted with two main groups of people: key informants with specific knowledge of the research problem and the populations living around both protected areas. Sixty interviews were conducted with key informants in Europe and in the urban centres of Bukavu and Goma. They included people working for international and local NGOs, researchers working in eastern DRC, government

officials, and members of Congolese civil society. Some interviews took place in person and others online. They tended to last between one and two hours. Between the different phases, I would often go back to have several conversations with a single person. This built trust with the respondents and helped access more detailed information over time. People did not always respond directly to questions: for example, not answering a question at the beginning of interview, but then responding later after they felt more comfortable. Working alongside teams of local researchers, over one hundred and fifty interviews were conducted around Kahuzi-Biega National Park and about two hundred around Itombwe Nature Reserve. I used open questions to get a feel for the main themes, then zoomed in on a few key topics based on categories identified from the literature. All interview guides were flexible and continually refined throughout the study as new themes and categories emerged from the data.

Focus groups played an integral role in the data collection. Focus groups can gather a large amount of data in a relatively short space of time. They are an effective way to generate data that can only be obtained through the interactions between respondents, or when people might be reluctant to relay information in one-on-one interviews. They work best when the people participating in the group know one another and are willing to co-create a discussion around a shared issue (Creswell, 2013). The research teams conducted about twenty focus groups in villages around Kahuzi-Biega National Park and twenty focus groups in and around Itombwe Nature Reserve. In some groups, we used a complementary participatory mapping exercise, in which participants could draw the details of various resource uses and conflicts onto a piece of paper, which would then be discussed as a group. This proved a powerful way to start a discussion and engage the respondents. However, in areas under the control of armed groups or where FARDC was involved in illegal resource extraction, the mapping tool could also provoke accusations of spying and intrigue. When this happened, we therefore opted for a pure focus group structure.

Some people felt constrained in what they could share in a group setting, given the precarious security situation. For example, inside the forests of Itombwe Nature Reserve where Mai Mai and local defence forces are dominant, people were generally reluctant to share about armed groups in the area. This was unsurprising given they were living among – or were themselves members of – armed groups at the time. A similar situation occurred in a village at the edge of the reserve where a Chinese mining company had established a gold mining operation under the protection of FARDC. People were generally hesitant to share details of the behaviour of FARDC and feared potential reprisals. One way around this was to ask questions in a focus group about another area from that in which the research was being conducted. This could diminish the risk of divulging sensitive information for participants. However, there were some areas where the focus group dynamic could also encourage people to share details they would otherwise conceal in a one-to-one discussion, particularly if the local chief was an active participant in the group. At all times, it was important to encourage the full group of participants, particularly the women, to express their opinion during focus groups. This prevented the most outspoken individuals from dominating the conversation.

Participant observation was the third method. Observation requires the researcher draw upon all five senses – sight, hearing, touch, smell and taste – to assess the research context (Angrosino, 2007). Observations can be made during interviews, walking through a research site, at lunch or dinner, or during informal conversations. For example, the smell of grilled

bush meat often wafted from restaurants in the village of Bitale, close to Kahuzi-Biega National Park. This provided an indicator of how banned resources uses continued despite the presence of eco-guards in the area. Observations also took place during transect walks, where respondents would guide me through a research site, a farm or forest, to help me to get a feel for the context. On these walks, respondents would frequently point out key sites of interest and the locations of historical events. For instance, a Batwa chief showed me around a settlement inside the park and explained how he was going to administer his newly acquired territory. Observations also involved interactions outside of proper working hours, at the end of the day or in the early morning. In this sense, the ethnographer is never fully 'off duty' (Brown, 2009). To document these moments, I kept a detailed field diary throughout, with thick descriptions of the people, places and events I encountered along the way. I also took hundreds of photos which were later brought into the analytical phase.

Related to participant observations are informal conversations. Given shadow state activity takes place informally, at the margins of legality, it was necessary to build an element of flexibility, indeed informality, into the research process. It was often during 'off-the-cuff' encounters, while 'hanging out' with people at the boundaries of conservation areas, that the most in-depth information was gathered. This meant leaving space between interviews, taking time to speak over lunch, or even a casual stroll in the evenings. These encounters sometimes took place in small bars and restaurants, in people's homes, or on the tracks leading up to protected areas. Informal conversations also emerged during interviews themselves. For example, two members of an armed group stepped into one interview, to ask if I was there to help them demobilise. Although not part of the interview, this event provided a useful insight about the mindset of armed actors in the area, i.e. that some of them wanted to demobilise. People were willing to divulge things in casual conversation they would never admit to during a formal interview. My local research assistants could obtain information that I, as a white European, had difficulty eliciting. I therefore encouraged them to take part in informal conservations on the research topics whenever they could. At the end of most research days, the team would sit for a thirty or so minute chat to discuss these findings.

All of the above methods were coupled with extensive analysis of documents. These could include official government papers, emails, letters, WhatsApp messages, NGO reports and local media articles. I set-up folders on my computer where I stored all the relevant documents and correspondence gathered during my PhD. I also established Google News Alerts with key words in French and English for each of my case study areas. These includes search terms for the DRC as a whole, the protected areas themselves, as well as for the different territories and chiefdoms in which research was conducted. These alerts provided an effective way of staying abreast of news published through international as well as local Congolese media sources. Although it was important not to take the information published in local media too seriously, considering these accounts were often heavily politicised and/or contradicted by interviews on the ground. Still, it helped to know how events are reported on locally. All key documents were coded alongside interview transcripts and helped to triangulate different findings – a key part of data analysis.

## 6. Data analysis

Once data had been gathered, it was transcribed onto computers either by mysely, and when recorded by local assistants, by them. I paid a local researcher to transcribe data from French and local languages into English. The data was uploaded into NVivo and then coded based on categories identified from the relevant literature on conservation in violent frontier regions.

Rather than taking a pure grounded theory approach based on 'axial' coding, whereby theory emerges from the bottom up, a mixture of induction and deduction was employed throughout. This is often the case with ethnographic studies where typically 'ethnographers start with a theory – a broad explanation as to what they hope to find – drawn from cognitive science to understand ideas and beliefs' (Creswell, 2013, 92). During the analytical phase, I relied on the insider *emic* perspectives provided by research participants, which are reported throughout my empirical chapters as quotes, and then filtered them through my own *etic* viewpoint to develop arguments. I therefore did not seek to describe how the data was validated or objective, as quantitative researchers might do. Conversely, I sought to demonstrate, in line with Eisner (1991), the credibility or trustworthiness of the qualitative data and my interpretations of it.

Data rigour was ensured through four steps. First, the research is all based on prolonged engagement with the field, including a scoping study, two extended periods of fieldwork, and follow up conversations with key informants by WhatsApp, email and Skype. Trust was built over time which allowed me to go back and check my findings and interpretations at later dates. Second, a process of triangulation occurred, whereby different forms and sources of data were compared and contrasted with one another. Thus: a code would need to be supported by evidence located at multiple sources. This could include data gathered using different methods, by different researchers, over different periods of time – enabling what Eisner (1991) refers to as 'structural corroboration'. As discussed, the research encompassed several different qualitative methods which allowed data to be triangulated from one method to another. For instance, I would cross-check information gathered during interviews in the field with data collected from key informants in urban centres, such as Bukavu and Goma.

Third, data was verified through peer review, by publishing and presenting work at conferences and seminars. The peer reviewer can act as a 'devil's advocate' (Lincoln and Guba, 1985), 'an individual who keeps the research honest; asks hard questions about methods, meanings and interpretations; and provides the researcher with the opportunity for catharsis by sympathetically listening to the researcher's findings' (Creswell, 2013, 251). Eisner (1991) describes this process as 'consensual validation', whereby the researcher actively seeks the opinion of competent others (i.e. experts) vis-a-vis certain descriptions, interpretations, evaluations, and themes. The four empirical papers included in this thesis have been peer reviewed and published in multiple scientific journals, institutional outlets and in an edited book. The ideas have also been presented and critiqued at various academic conferences and internal seminars at IOB. My supervisors and other researchers also provided feedback on my interpretations and analyses. As a result, my arguments have already undergone substantial revisions based on expert critiques.

Fourth, the research was validated through the identification of negative cases, i.e. evidence challenging my initial inferences. In all qualitative research, there will be some evidence which does not fit predominant codes or themes. This must be reported to show data was not cherry-picked to support arguments but also to demonstrate divergent perspectives exist. As with all social and political life, there are likely viewpoints in favour, against and ambivalent toward certain realities uncovered during a qualitative study. It may in fact be the unexpected, contradictory evidence that is most interesting to report on and dig into. This is apparent in chapters four and five, which provide different, though not unrelated, accounts of social mobilisations surrounding Kahuzi-Biega National Park. Chapter four, which was written first, uses a resistance lens to describe a population displaced through conservation violently rising up against park managers. Chapter five, written afterward, zooms out to look at how broader political economic structures give rise to violence, armed mobilisation and illicit resource extraction in the park. These divergent analyses demonstrate the contrasting perspectives that emerge when using different theoretical frameworks and metaphors.

Credibility is difficult to ensure in regions affected by violence and stark power relations. People might be disinclined to reveal the truth or even consciously engage in deception. As Berckmoes (2013, 129) notes, 'revealing politically sensitive issues to the fieldworker can have negative consequences for informants, like putting them in danger or destroying a fragile social integrity.' Research assistants can also exaggerate the truth, to look like they are doing a good job, with the aim of securing a second round of employment. At the same time, some stones may have to be 'left unturned' (Horst, 2006, 29), where the risks of disclosure are too high – such as around armed group financing. Close encounters with deception are, however, not necessarily negative to a research project. Rather, 'Exploring the specific circumstances in which a lie emerged may help researchers find out the meaning or motive behind a lie, and can enhance the understanding of the inter-subjective relation between a researcher and informants' (Berckmoes, 2013, 137). Probing the politics of truth and lies helped me to better understand how different transcripts might have evolved over time. Rather than constraining my understanding, misinformation became a form of data in and of itself.

## 7. Reflexivity

### *7.1 Ethical considerations*

It is often said a researcher's primary responsibility is to do no harm. If at all possible, they should also make a positive contribution to their research participants. Research in conflict settings poses unique ethical challenges that might not be present in more peaceful regions. Even though a full ethical review was completed with the University of Antwerp both for the overall project and for fieldwork, I still encountered a number of serious ethical dilemmas.

A major ethical challenge when doing research in eastern DRC concerns how to deal with anonymity and confidentiality. I always told respondents at the start of interviews and focus groups that the information they provided would be anonymised. If I did want to publish their names in the research, I would ask them later on. They were also informed that they could discontinue their participation in the research at any point – before, during or after an interview or focus group had ended. Most of my informants have been anonymised for

security reasons given the sensitive nature of the data they reported. However, not all have been kept anonymous: for example, the actual names of the leaders of armed groups discussed in the vignettes provided in chapter five are those written. This decision was made on the basis that there is already a large amount of information about two of them available online, on local news websites, and one agreed to have his details published.

In eastern DRC, 'fear and anxiety are a common feature of research, both on the part of the researcher and the researched' (Thomson, Ansoms and Murison, 2013, 6). These emotions provide a window into the lives of people living in violent contexts (Begley, 2013). I noticed how I was reluctant, for good reason, to share details of my research with powerful actors. I might share more over time once a degree of trust had been established. A sense of rapport could gradually enable myself and my informants to open up beyond our 'façade of normalcy' (Green, 1994) marked by 'silence, secrets and self-censorship' (Thomson, Ansoms and Murison, 2013, 6). It takes time, perhaps longer even than a full PhD, to build relationships to the point where informants will share intimate details of their hidden transcripts. To accelerate this process, it helped to work with assistants who were already trusted in communities. When respondents were sharing sensitive material, it was important to be both compassionate and attentive. As Creswell (2013, 166) notes, 'a good interviewer is a good listener rather than a frequent speaker during an interview.' Still, trust can wear a Janus face: the more a researcher becomes embedded within a social group, the more he or she is likely to experience interpersonal difficulties. Among others, being pressured to give more and more money, bring development projects, and intervene in inter-community disputes.

Related to trust is whether to compensate respondents for their time, which could be financially or in other ways. Some researchers argue monetary compensation should not be provided. Ansoms (2013, 48) cautions, 'Paying money or providing other support can create jealously, power struggles etc and can affect relations between researcher and participants as well as between participants, with the potential to profoundly disturb the local social tissue.' Financial compensation might encourage people to pretend to know something about a topic in order to receive a payment for their time. Thomson, Ansoms and Murison (2013, 5) suggest 'there is not one way to manage the expectations of local actors'. They argue instead for 'researchers to commit to long-term engagement with research subjects and sites so that meaningful reciprocal relationships can develop to manage expectations over time.' My own experience suggests issues around compensation are highly context specific, dependent upon who the researcher is speaking to, in what place, and at what time.

I knew in practice, my research project would have little or no material impact on the lives of people I interviewed. It might contribute toward policy change in the long-term, or persuade scholars to change their minds about how conservation should be 'done' in violent frontiers. However, I was under no illusion my work would be a solution to the immense challenges people faced living in the vicinity of South Kivu's protected areas. I did my best to make clear the limitations of the project. But this did not stop people demanding financial and other support at every available opportunity. Some of my respondents straight up refused to participate until we had agreed on the *petit motivation*! In the areas in which I worked, people have unusually high expectations for compensation due to long-term involvement of conservation and development NGOs. These NGOs have access to funds and resources that I, as a PhD researcher, simply did not. Some of them reportedly give people $10 to participate

in a single workshop. At first I brought gifts such as soap or coffee, but as people kept asking for cash, that is what I gave in the end. I decided to give between 2-5,000 CF, the equivalent of 1-2.5 USD, to research participants after having completed an interview. Although not everyone was satisfied, most people were happy with this small contribution.

Researchers can contribute in other ways too. Clark-Kazak (2013, 99) suggests, 'While ethical guidelines are clear on a researcher's responsibility to "do no harm" (Wood, 2006), they are silent on whether one should intervene to prevent harm by other actors.' Scheper-Hughes (1995) favours intervention on behalf of respondents. Other writers caution against the conflation of research with work that would usually be done by NGOs or civil society organisations (Clark-Kazak, 2013). Intervention can effect the way in which participants present themselves during the research process. My respondents often looked to me as a source of 'extraversion', i.e. as a way to gain access to power and influence at higher scales. In a similar regard, Ansoms (2013, 43) describes how her research could 'meet local actors' expectations to function as a "transfer gate" that gives leverage to their voices from "the bottom" in order for them to reach higher levels of society.' This can lead participants to adopt a posture of 'victimcy' to try and secure help through the research (Clark-Kazak, 2013). Nordstrom and Robben (1996, 83) described this process as 'ethnographic seduction', or 'those personal defences and strategies' used by respondents that play with 'our own inhibitions, weaknesses, and biases' and affect our "critical sensibility"' (Bouka, 2013, 114).

I became a means of extraversion for my respondents and myself engaged in extraversion when I got stuck in a tricky situation. After getting arrested by two state officials in one village, I reached out to a high-level contact working at the President's Office in Kinshasa to have me released. Of course, most people I interacted with did not have access to networks of this kind. I was also confronted with the conundrum of whether or not to intervene to alleviate injustices revealed during research. For example, several Batwa chiefs asked me to get them out of jail in Bukavu. In almost all cases, I was not able to do anything, and probably would not have done even if I could, considering the risks. Despite temptations to promise people the world (of course it feels better to offer help than not), it would be impossible to deliver on these assurances in practice – especially as I had to spend most time doing research. For the most part, I therefore opted for an attitude of compassionate detachment.

Management of expectations does not end once research is over. Following all three of my fieldtrips to South Kivu, I continued to receive messages from chiefs, peasant villagers and local NGOs asking for support long after I had left Bukavu. In this vein, Thomson, Ansoms and Murison (2013, 4) remind us that 'when we leave, we leave behind people who have had an instrumental impact upon our lives, while we leave them in the same social conditions to continue their daily struggles.' Going home can be the hardest part. The way in which we leave a study area or a community is therefore important to consider in advance. Creswell (2013) encourages the researcher to withdraw from an area slowly and convey the details of departure, so participants do not feel used or abandoned. However, this is not always possible when working in insecure zones, given the prevalence of armed actors and banditry. On multiple occasions, I decided to leave an area quickly and secretively, without telling anyone where I was going. This reduced the risk of kidnapping on the road ahead. Based on the advice of my local assistants, I even sometimes lied about where I was headed next, to put potentially

hostile actors off my trail. What appear good ethical principles in peaceful settings may not be feasible in conflict zones.

Conducting field research at the time of COVID posed additional difficulties. Coronavirus kicked off toward the beginning of 2020, at the end of my first major fieldwork. The Congolese Ministry of Health had not yet introduced sanitary rules. On this basis, I did not initially consider extra measures to protect myself, local researchers, or informants. However, during my last two month fieldwork in 2021, the severity of the virus and effective precautions to prevent its spread were well-understood. This time around, I provided masks and hand-sanitiser for myself, the local assistants and our respondents to use in social settings. Sometimes the respondents did not want to wear masks or sanitise their hands. In these situations, I encouraged the research team to explain once how these measures could help prevent the spread of COVID. If the respondent(s) still declined to use them, I suggested the researchers continue without taking the discussion any further. As researchers, we cannot force people to do things they do not want to do, even if it seems to be in their best interests.

### *7.2 Axiological assumptions and positionality*

Qualitative research projects do not rely on statistical methods to validate research findings. Instead, the researcher filters their respondents' *emic* perspectives through their own *etic* understanding. As a consequence, qualitative researchers have a much greater subjective influence over the interpretation of their results. It is, therefore, important for qualitative researchers to acknowledge their positionality and axiological assumptions at the outset. These include potential biases, prejudices, orientations and values. Qualitative researchers must, consequently, 'position themselves' within the study and be self-conscious of how the framings of issues, stories and conclusions are a by-product of their interpretations.

While not descending into narcissistic naval gazing, I want to give a little of the 'story behind the findings', an aspect of research rarely appreciated though gaining traction over recent years. According to Thomson, Ansoms and Murison (2013, 1) the stories behind the findings 'deserve proper attention, not only to fathom the inevitable bias in the researchers' position in the field and to assess the quality of the research findings, but also to illustrate that the façade of "scientific validity and neutrality" often hides a pragmatic approach that has shaped the empirical research process.' In this section, I emotionally engage with the research experience, to give insights into my *etic* viewpoint both during data collection and in a broader sense. Some of the insights presented here were discussed in a seminar I gave with fellow PhD student Alice Jandrain at ISS's 2021 conference on peace, solidarity and social justice.

My analyses are inevitably calibrated by my gender, class, culture, nationality and personal politics. Before starting this PhD, I had lived in a middle class town in the South East of England for most of my life. Although I grew up in a degree of 'privilege', my roots are anything but. My parents are Scottish and Irish, from thoroughly working class backgrounds. I may be the first person my family to pursue a career in research, but I am not the first to work amidst war and violence. My grandfathers both fought in the Second World War and at least one of my great grandfathers fought in the First World War. One of my grandfathers was a prisoner of war in Nazi Germany; the other is rumoured to have liberated concentration camps. Although

I did not realise it at the time, my compulsion to do research in eastern DRC was in part an attempt to understand the impact and trauma of conflict on my own family.

Even before the PhD, I took a keen interest in the history of conflict in Central Africa, the Balkans and Armenia. Over the last decade, I have visited several post-conflict countries and genocide memorial sites. After visiting Rwanda in 2014, I felt what can only be described as an impulse to one day cross the border into DRC. That dream came true in 2015 when I visited Bukavu with the UK charity Birthlink to write about their work at the now world-famous Panzi Hospital. A year later I was in North Kivu Province, where I took a trip to Virunga National Park. I spent a week filming interviews with two friends around the park and in Goma for a DIY documentary. I had studied the social science of conservation and protected areas during my BA and MSc degrees, but Virunga was on another level – a heavily militarised conservation area in a region wracked by violence, war and volcanic eruptions. What I had witnessed in the park essentially brought together my interests in conflict and the environment. When I got back to my desk in London, I wanted nothing more than to come back to eastern Congo. It was at that time that I started to consider how to get a research grant.

Two years and a massive application process later, I was enrolled as a PhD student at the University of Antwerp. A year after that, I would embark on a six month trip to South Kivu, a trip which would change my life forever. For years, I had fantasised about doing fieldwork in DRC. Before I arrived in South Kivu, I wanted nothing more than to see first-hand the wildlife, forests, rebels, guns, mines, indigenous peoples I had seen and read about in books magazines and documentaries. I wanted to come back home with stories to show off at dinner parties, tales that would transform how I saw myself and how others saw me. And to a degree, that has happened. However, the difference between my idealised vision of the field and reality was about as stark as could be. Yes, fieldwork is exciting, wild and fun, but it can also be terrifying, monotonous and infuriating. I particularly recall the latter when navigating a sprawling morass of state officials with seemingly little to do than prevent my work and extort my cash. To study the shadow state is one thing; to negotiate with it is quite another.

Being a white European in eastern DRC comes with certain privileges, but also unwanted attention. Wherever I went, I was met with requests for money and practical support. Sometimes I was ridiculed or laughed at based on the colour of my skin, or the way in which I spoke and held myself. So many times, I wanted nothing more than to be the talk of the town no longer, to blend in and become as unremarkable as I felt back home. Of course that did not happen. I am also a man and this has advantages when working in the region. I was not exposed to sexual harassment in the way I know some female colleagues have been. But that does not mean I did not experience any difficulties related to my gender. I was on several occasions threatened by government soldiers and members of armed groups in ways perhaps a woman would not. I was also asked several times whether I might consider marrying a chief's daughter; and once whether I might offer my sister's hand in marriage!

To deal with the emotional pendulum swings of the field, I unconsciously developed my own hidden and public transcripts. Begley (2013, 77) explains how, 'It is not uncommon for researchers to find themselves with the difficult but necessary task of having to agree with the positions of those they are interviewing.' This was most clear while in the presence of state officials. Feigned submission was also sometimes necessary to ensure the safety of my

research assistants, who had connections, families and reputations to protect. A significant part of my emotional engagement was to understand the nature and complexity of my own covert narratives in a region where power relations were constantly shifting. I found that rather than having a single set of hidden and public transcripts, I developed a complex tapestry of multiple and overlapping internal and external dialogues. In effect, I started to wear many different masks in different settings. This would be different in, say, Rwanda, where state hegemony is more established and only a single mask is likely to be required.

Putting on different masks for different interlocutors had considerable phycological costs. At points, I lost track of my own identity, what I really thought and felt. Upon returning home, I was not surprised to learn people frequently come back from eastern DRC with post-traumatic stress disorder (PTSD). Dealing with so many highly distressed people triggered my own traumas from the past and inflicted new wounds. As part of my self-care, I built a strong network of people whom I could discuss and process my experiences with. But this was not easy. Very few people I knew had ever experienced anything like what I was going through. When I shared my difficulties, their usual reply was, 'Why don't you come back home!?' Only someone who has done fieldwork in eastern Congo can understand how profoundly unhelpful this is. I found keeping a journal, regular exercise at a Bukavu gym, and getting professional therapeutic support helped me navigate this complex emotional landscape. These are tools I will continue (and would encourage others) to use as a conflict researcher going forward.

I developed several friendships during fieldwork. This was important, considering for several months I was exposed to stresses way beyond what I am used to. Like Jourdan (2013, 21), 'I am not so ingenuous to think that I was particularly brilliant and interesting in the eyes of my interlocutors. In reality many of my "friends" were staying with me because they were attracted by my money or by other advantages they could obtain, or at least hope to obtain.' As a European, many of my relationships were on some level opportunistic. One of my research assistants asked me to be the godfather at his wedding. I at first thought this was because I really was that special to him – and maybe I am. But this was also a strategy to encourage me to contribute toward the wedding financially, which I was able to do, but only in a limited sense. The same assistant later asked me to pay a substantial medical bill. I was able to offer a small something, but not to pay for the whole bill. This was how many of my relationships would play out. It taught me not only about the challenges of research for a white European, but also about how Congolese relate to outsiders more broadly.

## 8. Limitations

This research has several limitations. The first concerns language. Being a native English speaker has advantages when working as an academic: most significantly, all the major journals are in English. This has perhaps made it easier for me to publish than other PhDs in Belgium. However, like most my countryfolk, I made absolutely zero attempt to learn another language after school. Since starting my PhD, I completed three French courses at the University of Antwerp's Linguapolis language school to prepare for the research. Although I can now get by in French, I am by no means a fluent speaker. While in the field, I therefore always needed an assistant who could speak English and French. However, I was often left

frustrated by the slow speed of communication: asking a question, waiting for it to be translated, waiting for a response, waiting again for the translation back to me.

Almost all of my interviews in Bukavu and Goma were done with a translator in French. When out in the villages around Kahuzi-Biega National Park and Itombwe Nature Reserve, elite actors could almost always speak French. However, for the majority of these interviews, I needed a translator who could work from Swahili to English or one of the many other local languages (Kibembe, Kilega, Kitembo, Kihavu, Mashi – just to name a few) to English. Although it was possible to conduct interviews in this way, the language barrier prevented me from picking up on nuances I probably would have noticed in English. When working in power laden situations, it is particularly costly to miss these details. I therefore held debriefs with my translators most evenings to elaborate on aspects I might have overlooked during interviews.

The amount of time I was able to stay in the field was a second limitation. Almost nine months research was conducted in South Kivu across three different stays. Although this is a substantial period, the quality and depth of findings could always be improved with more experience in the field. A more significant limitation than the overall time spent in the field, was the limited time I could spend in *specific* regions and communities. Where research was conducted outside of Bukavu, the risk of banditry and kidnapping was often high. The teams took long motorcycle rides to reach many research sites, two hours going there and two hours going back. To ensure we did not travel in the dark, we therefore had to limit the time we spent doing research in the villages. In the forests inside Itombwe Nature, we sometimes slept in remote mountain villages. But never in a single village for longer than two nights in a row. This constrained the rapport which could be built with informants, and the depth of data.

Security was not the only issue that restricted the time I could spend in an area. For instance, it took four days of intensive walking to reach the remote forest village of Mbandakila in Itombwe Nature Reserve. The research team brought rice, biscuits and basic supplies to eat along the way. But we eventually ran out and had to buy food from our research participants – thus adding an additional layer of complexity to the research process. Throughout the trip, we had to sleep in small forest huts, sometimes on the floor with nothing but leaves for a mattress. The living conditions were extreme and I became sick after about twelve days. A hacking cough eventually forced me to retreat. It took me five days walking and on the back of motorbikes to return to Bukavu, and almost two weeks to recover, a period during which I was able to do a grand total of nothing. Yet more waiting…

I am a pragmatist – willing to use the methods and design best suited to the question at hand. Pragmatists typically use mixed methods designs that integrate qualitative and quantitative components. Yet, I opted for a pure qualitative approach given the exploratory nature of the research. This could be considered a third limitation to the project. Indeed, I now see how a quantitative component could have increased the breadth of the research: by, for instance, allowing me to test the qualitatitive conclusions with a quantitative-type survey. I could also have tested some of the qualitative data on environmental changes with the use of satellite imagery. I did not have time to add an additional quantitative component this time around. However, I am now developing a post-doc proposal to examine the contractual dimensions of conservation across Africa's Great Lakes region based on a mixed methods design.

A fourth limitation concerns the generalisability of conclusions. Qualitative case study research is not intended to be generalisable, but rather to provide deep insights about a specific context within a particular timeframe (Hennink, Hutter and Bailey, 2010). As I have previously mentioned, the case of conservation in eastern DRC is an outlier in terms of the scale of violence involved. I have essentially explored what Rutherford (2003) describes as an extreme or 'limiting case' at the polar end of a continuum. My study will hopefully provide interesting reading for people studying conservation in other violent frontiers, where armed groups are present. For example, in the Central African Republic and Colombia. The findings might first appear less applicable in more peaceful contexts, such as in Tanzania or Kenya. But this is not necessarily so: extraordinary cases can still provide insights about social dynamics that are repressed or blocked in more hegemonic settings (Lombard 2016). The cases I explore could therefore also reveal something generalizable to conservation more broadly.

## 9. Conclusions

This chapter has provided an overview of the research methodology. It addressed how the research was rooted in a critical realist ontology yet remains fundamentally pragmatic in approach. It described how the qualitative case study design incorporates ethnographic and narrative elements. After that, it provided details of the strategies used to access and sample respondents. Four key methods of data collection were introduced: semi-structured interviews, focus groups, participant observation and document analysis. The chapter also elaborated on the techniques used to analyse and ensure the credibility of data. It reflected on ethical considerations, axiological assumptions and my own positionality as a researcher. Finally, the chapter assessed the study's main limitations. I hope some of what I expressed here can practically contribute to further research in violent frontier regions and help establish and normalise a more emotionally engaged political ecology going forward.

# CHAPTER 2: A CONCEPTUAL FRAMEWORK

## 1. Introduction

In this chapter, I piece together various theoretical fragments into an innovative conceptual framework to study conservation in a region afflicted by war, state corruption and the violent extraction of natural resources. I characterise conservation as an activity on a commodity frontier which links up to global capitalist networks. In a resource-rich region like eastern DRC, the conservation commodity frontier inevitably intersects with other resource frontiers – importantly those that concern the extraction and processing of mineral resources. I consider how this 'constellation' of frontiers touches down in a region at the frontier of government control characterised by shadow state dynamics. This can lead to various forms of territorialisation and violence at the local level, which produce diverse responses 'from below'. These range from out-and-out resistance and armed mobilisation to economic incorporation and the formation of alternative (social) contract-type relations.

## 2. Global commodity frontiers

The metabolism of capitalism leads to the commodification of natural resources and the emergence of 'commodity frontiers' – the landscapes in which previously uncommodified natures are incorporated and sold in global capitalist markets (Moore, 2000). Before discussing the creation and advancement of commodity frontiers in greater depth, I want to turn to the wider economic system within which they emerge.

I take inspiration from various conceptual models that have tried to unpack the global networks of production and distribution. These networks bring together a wide array of economic actors through an intricate system of global corporate governance, whereby outsourcing of production has become commonplace and a clear global division of labour has emerged (Neilson, Pritchard and Yeung, 2014). In 1974, Immanuel Wallerstein attempted to describe the history of capitalism on a global scale as an overarching system marked by periods of expansion and contraction. With 'world-systems theory', he described *core* regions that exploit *periphery* regions in order to accumulate wealth (Wallerstein, 2011). While the periphery is focussed on the extraction of primary commodities, the core processes and consumes these commodities. However, these categories are not fixed: different nations and sub-regions can move from core to periphery and back again depending on circumstances.

More recently, the notions of global value chains and global production networks have come to the fore as frameworks to explain the global integration of companies, regions and countries (Geenen and Verweijen, 2017). These two approaches are in many ways similar and seek to shed light on processes of value creation and retention in global economic systems (Henderson *et al.*, 2002; Gereffi, Humphrey and Sturgeon, 2005). They describe a global economic system characterised by 'progressive outsourcing by lead firms in developed countries of their peripheral, and frequently low-value, productive functions to low-cost countries and regions, while maintaining control of core nodes of value creation and retention

in their home countries' (Neilson et al., 2014, 2). The lead firms based in developed countries, i.e. the global economic core, typically set the conditions under which actors based in peripheral regions can participate in chains and networks of value. This works in tandem with much higher rates of consumption in core or developed regions, which leaves people living in less-developed or peripheral regions seeking incorporation into the opportunities for production that this consumption creates. The capitalist system in which these networks are embedded is dependent upon increasingly cheap labour, space and resources for its expansion and survival (Harvey, 2003; Moore, 2015).

This is the global economic order in which increasing commodification of natural resources takes place. Natural resource commodities include classic commodities like sugar, cotton and mineral resources, but also newer commodities such as elements of the human genome, plant genes, ecosystem services, and even bacteria and viruses. Castree (2003, 281), highlights six aspects of commodification according to the Marxist cannon: the *privatization* of legal titles for commodities to named individuals, groups or institutions; the *alienability* of specific commodities in such a way that they can be physically separated from their sellers; the *individuation* of commodities to put material and legal boundaries around them; the *abstraction* of commodities so that the 'qualitative specificity of any individualised thing (a person, a seed, a gene or what-have-you) is assimilated to the qualitative homogeneity of a broader type or process'; the *valuation* of a particular commodity in monetary terms; and the *displacement* of the production from the consumption. To link this back to Wallerstein, these processes are typically driven by high rates of consumption in core world regions which drive the extraction and monetisation of resources at the periphery.

The metabolism of global capitalism is what leads to the emergence of commodity frontiers, i.e. the geographical spaces where new resources are discovered and brought into global markets. In his classic paper on the subject, Moore 2000 (410) reconceptualises the notion of the frontier within the world-systems view and highlights the 'ways in which the production and distribution of *specific* commodities, and of primary products in particular, have restructured geographic space at the margins of the system in such a way as to require further expansion.' In agreement with Marxist scholars more broadly, he suggests capitalism is ultimately dependent upon the expansion of market relations into new and unchartered frontier regions where the commodification of land and resources has not yet happened (Boyer, 2015). On this basis, he introduces the notion of commodity frontier 'for the study of world capitalist expansion' (Moore, 2000, 409). Here I am specifically interested in the expansion of conservation commodity frontiers, which I will suggest interact and intertwine with the expansion of extraction commodity frontiers. These will now be discussed in turn.

### *2.1 Conservation commodity frontiers*

Environmentalists often view conservation as a balm to the negative consequences of capitalist expansion on ecosystems and biodiversity. In the words of Tania Li (2008, 124), they see protected areas as impeccable 'noncommodities' that have been taken outside of the market and into public ownership. Yet, conservation has a long connection to capitalism (see Brockington, Duffy and Igoe, 2008) and many technologies of environmental governance are

themselves connected to global production networks. In this sense, the territorialisation of protected areas can itself be viewed as an activity which takes place on a commodity frontier.

Alice Kelly (2011) argued that conservation, typically in the form of protected areas, represents a form of primitive accumulation – driving processes of enclosure, dispossession, the privatisation of common resources, and profit creation. In sub-Saharan Africa, for example, Europeans first established protected areas during the colonial era as a way to maintain an aristocratic way of life that was on the decline in Britain and other nations (Adams, 2013). The colonial powers designed protected areas to preserve the species most valuable to them in terms of sporting thrills and aesthetic pleasures (Quinn and Ockwell, 2010). With such motives at the forefront of decision-making, they paid scant attention to the needs of indigenous populations, needs these people had met for hundreds if not thousands of years through their surrounding environments. From the colonial era onwards, enclosure of what have come to be known as fortress conservation areas led to the forcible displacement of millions of people from their lands and resources (Dowie, 2011), facilitating further wealth accumulation among an elite few.

As a result of the international opprobrium generated by the human costs of fortress conservation and local resistance to it, more flexible community-based approaches to environmental management were promoted from the 1980s as a way to extend the conservation estate (Hulme and Murphree, 1999; Roe, 2008). In a sense, community conservation is ancient. Customary conservation practices, for instance, are locally produced and can be sustained through traditional knowledge systems that have maintained biodiversity and cultural values over the long-term, sometimes without the need for external financial or technical, indeed capitalistic, support (Ostrom 1990). However, community conservation projects advocated by the 'new conservation' movement increasingly entail implicit and explicit linkages with market systems (Büscher and Fletcher, 2020). New conservationists argue local populations must derive material, usually economic, benefits from protected areas for conservation to succeed in the long-run (Agrawal and Gibson, 1999). They advocate for the devolution of regulatory responsibility away from states toward private actors as well as to communities themselves – another key feature of the neoliberal transition from government to dispersed governance.

Within the overarching neoliberal agenda, new governance structures for conservation are increasingly promoted based on global markets, which explicitly integrate environmental governance into the global capitalist system (Igoe and Brockington, 2007; Brockington, Duffy and Igoe, 2008). Market-based forms of conservation are embedded in a modernist vision of private land-ownership and an imperative to 'make conservation pay', to incentivise local populations to accept restrictions on their lives and livelihoods. Payments for ecosystem service (PES) projects, for instance, seek to price nature into economic decision making and make it exchangeable with other commodities (Igoe, Neves and Brockington, 2010). The move toward more neoliberal forms of environmental governance has driven a reduction in state involvement in protected areas and environmental management. In conjunction with this, international NGOs, wealthy entrepreneurs, private companies, tourism and travel agencies, and foreign governments take increasing responsibility for both financing and managing protected areas (Zoomers, 2010; Brockington, Duffy and Igoe, 2008).

Perhaps the clearest example of conservation opening up new frontiers for commodification and accumulation is through ecotourism. Ecotourism is justified as a way to make conservation financially viable. Where protected areas are owned by the state, ecotourism enables both domestic and foreign private firms to profit from public property. It has become a major sector within the global tourist industry and millions of people travel to wild and spectacular habitats every year to 'experience' nature first-hand. The infrastructure that has accompanied this development has driven investment and created jobs on a global scale (Brockington, Duffy and Igoe, 2008). At the same time, ecotourism creates a considerable number of jobs and economic opportunities in the informal sector, such as through the sale of handicrafts for souvenirs (Cone, 1995; Pattullo, 1996; King, 2017; Hitchcock and Teague, 2019). In a sense, tourists 'consume' protected areas in ways immaterial (Kelly, 2011), such as through wildlife viewing experiences, photographs and film. These could bring in higher revenues than the material resources found inside those areas, such as minerals and timber.

Huge sums of money go into funding protected areas. At the international level: companies, private individuals and developed country governments donate to environmental NGOs such as the World Wildlife Fund (WWF) and World Conservation Society (WCS) in order to implement conservation initiatives. In other words, conservation is big business. State officials also derive financial benefits from conservation (Kelly, 2011), sometimes through means less than licit. Dowie (2011) suggests ruling politicians in countries where corruption is rife would unlikely be willing to accept protected area designation in regions with considerable extractable resource wealth without there being something in it for themselves. At a more local scale, park authorities, provincial government officials and customary chiefs can also gain access to economic resources through informal payments from conservation NGOs and/or by taxing illegal activities that take place inside national parks. Put simply, rather than being separate from the broader capitalist system, protected areas are very much a part of it.

Basis on the above, I identify a conservation commodity frontier that connects up to global networks of expertise, value and finance. These networks are dominated by powerful international NGOs and their public and private sponsors, which continue to expand protected areas and other conservation initiatives into rural landscapes, often with the support of state legislation. Yet the conservation commodity frontier is, of course, not the only commodity frontier to touch down in resource rich regions of the world.

### *2.2. Extraction commodity frontiers*

Although the primary focus of this thesis is the expansion of the conservation commodity frontier, this is not the only commodity frontier relevant to my analysis. Indeed, multiple commodity frontiers touch down and intersect with conservation territories in eastern DRC, including (though not exclusively) those centred around the extraction of mineral resources.

Extraction refers to 'those activities which remove large quantities of natural resources that are not processed, or processed only to a limited degree, especially for export' (Acosta, 2013,62). Extractive frontiers can be viewed as the landscapes in which natural resource commodities are removed from the ground and sold in regional, national and global markets. These include non-renewable mineral resources such as gold, coltan and cassiterite and

hydrocarbons such as oil and gas. These resources are used to produce a huge number of products, including smart phones, personal computers and electric cars, along with infrastructures like roads, trainlines and buildings. Whereas non-renewable resources are almost always destined for global markets, renewable resources (e.g. timber, charcoal and animal products) are sometimes sold internationally but also consumed locally or regionally. Although renewable resource frontiers are discussed in this thesis, I focus primarily on the intersections between conservation enclosures and the global mining commodity frontier.

Mining has played a central role in frontier expansion. Indeed, the frontier concept was first applied to describe the westward movement of European settlers in North America in the 19th century (Geiger, 2009). Mining was integral to this movement, not only as a means of capital accumulation, but also due to its contributions toward 'civilising' new lands and incorporating them into the state system. Before the 1980s, mining companies typically focussed their activities on commercially viable deposits in Latin America, Canada and Australia. Sub-Saharan Africa's contribution to global mineral production was relatively minor up until this point (Kumar, 1990). This was due to political instability and unattractive investment policies. Yet starting in the mid-1980s, the World Bank initiated a process of mining sector reform, redrafting national mining codes and investment policies across sub-Saharan Africa. It aimed to foster economic development through foreign direct investment in mining activities (Bebbington *et al.*, 2008). The extractives sector thus came to be promoted as the most expedient route to economic development and poverty reduction.

For example, the African Union's (2009, v) African Mining Vision is 'transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development.' The high-profile Africa Progress Panel (2013, 8) argues that 'Africa's petroleum, gas and mineral resources have become a powerful magnet for foreign investment. With new exploration revealing much larger reserves than were previously known, Africa stands to reap a natural resource windfall.' Moreover, the number of NGO initiatives that support extractives-led growth through good governance is growing every day, ranging from the Extractive Industries Transparency Initiative, Publish What You Pay to the Kimberly Process Certification Scheme. As a result of these and other policies and programs, resource enclaves emerged across sub-Saharan Africa, whereby states effectively hand territorial control over to transnational mining corporations (Ferguson, 2005).

Mining frontiers are generally depicted at two scales: large-scale corporate mines and artisanal and small-scale mining (ASM) (Verbrugge and Geenen, 2019). Industrial mining involves open-pit and underground mining operations. It is capital intensive, driven by large corporate actors and authorised by states (Hilson et al., 2020). Artisanal mining involves low-tech, labour-intensive methods of extraction. It often operates at the margins of state legality, with miners and their backers creating zones of micro-sovereignty, replete with their own rulemaking and enforcement capacities (Käkönen and Thuon, 2019). Artisanal miners represent a cheap and mobile labour force that can facilitate the expansion of the mining frontier into areas that large-scale mining fails to reach (Verbrugge and Geenen, 2019). The sector employs tens of millions of people in the sub-Saharan Africa, and plays a constructive role in poverty alleviation, especially as a source of disposable incomes for small-holder

farmers (Hilson and Garforth, 2012).[15] Recent analyses have demonstrated how industrial and artisanal mining are not dichotomous, but rather form part of a global mineral production network, and often occur within the same landscapes (Geiger, 2009). A wide variety of mid-tier activities and scales of production also exist between large-scale and artisanal mining (Verbrugge and Geenen, 2020). In this thesis, I refer to the latter as 'semi-industrial' mining.

### *2.3 Frontier constellations*

Conservation and mining commodity frontiers may appear as opposites, the latter the reverse of the former. However, an emerging body of literature show how these ostensibly contradictory processes are more similar than might first appear. Not only do extraction and conservation occasionally coexist and overlap, they can even coproduce one another.

Modern forms of resource extraction and biodiversity conservation are built on a similar political economic logic: that of transforming nature – be it gold or vast tracts of wilderness – into commodities for exchange. Both link up to global capitalist systems and have their origins in the Colonial past. Thus, at least in their initial guises, contemporary forms of conservation and extraction were conceived of, introduced and managed to serve the needs of populations far from where they are physically located. There are even cases where mining companies have expanded their reach by participating in biodiversity offset schemes; or inversely, where conservation projects serve to further entrench and expand the extractive frontier by greenwashing its most egregious impact (Enns, Bersaglio and Sneyd, 2019). ExxonMobil, for instance, tried to 'offset' the environmental impacts of its Chad-Cameroon oil pipeline by contributing toward the creation of the Campo Maun and Mban et Djerem National Parks (Brockington, Duffy and Igoe, 2008). This chimes once again with Kelly's (2011, 684) analysis which fits the 'the creation of protected areas into the market-based logics driving more obvious or overt acts of accumulation by dispossession.'

Mining and conservation commodity frontiers are not the only types of commodity frontier to intersect. The capitalist system produces all kinds of overlaps and interconnections, bringing together a wide variety of actors, resources and geographies. Büscher and Davidov (2013, 259) suggest the enclosures that emerge through the metabolism of world markets 'are not singular but, often, multiple overlapping boundaries that accumulate natural resources and social relations in the private realm of once shared frontiers, separating out or alienating commonly held resources from familial social relations and use value.' On this basis, Eilenberg (2014, 157) introduces the notion of 'frontier constellations' to describe the dynamics that unfold in regions where 'resource extraction, agricultural expansion, population resettlement and securitisation' converge. He makes the case that these constellations lead to 'cyclical' processes whereby the frontiers ebb and flow in conjunction with the power of nation-states and the vicissitudes of global markets.

What is the result of the expansion and increasing entanglement of multiple frontiers? How do frontier constellations affect wider compositions of power and authority? Käkönen and

[15] It should be recognised that artisanal mining does not always produce commodities for global markets. For instance, ancestral mining practices locally owned and can be sustained through traditional knowledge systems (Weitzner, 2017).

Thuon (2019) took Eilenberg's (2014) analysis further and examined the overlapping zones of exclusion that develop in regions affected by frontier constellations. Specifically, the authors explore the intersections of the complex spaces of resource governance that emerge in a frontier constellation in Cambodia's Cardamoms region. These included a forest conservation area managed by international NGOs and the state, a Clean Development Mechanism[16] zone to promote climate change mitigation, a hydropower zone managed by Chinese companies, and an informal logging zone. Their novel contribution is to demonstrate that the different zones of territorial control that emerge on frontiers can, in fact, serve to enable one another. The following excerpt is from Käkönen and Thuon (2019, 1209) article:

> …the exclusionary mechanisms of the conservation zone enabled state territorialisation and, by limiting potential inmigration, partly facilitated the major hydropower investments in the area. Together with the conservation zone the construction of the hydropower dams enabled the emergence of exclusive logging zones through roads and other infrastructure which made previously inaccessible areas accessible, and reservoir clearance permits which provided cover for logging activities. Whereas the capital-intensive and concentrated, large-scale hydropower production enables the establishment of exclusionary spatial enclaves, activities like timber extraction are harder to insulate in a similar way. The pre-existing exclusionary conservation zone in the Cardamoms, however, partly constituted the mechanisms of exclusion required for monopolised extraction of timber that is widely spatially dispersed and requires relatively low capital investment.

In effect, rather than clashing or excluding one another, the convergence of frontiers can consolidate the overall frontier constellation. In so doing, overlapping frontiers are often seen to serve a hegemonic function, bolstering the territorial control of the nation state. In reference to the extraction/conservation nexus, Büscher and Davidov (2013) argue that this leads to an 'intensification of power' (Nealon, 2008) – what Foucault referred to as biopower – something that we have increasingly witnessed under the era of neoliberalism since the 1980s. This intensification is driven by a move to monetise and accumulate value from all of nature; the abiotic resources usually associated with extractive projects and the biotic resources that are usually the target of conservation governance. The coincidence of multiple frontiers, including those of mining and conservation, could thus be perceived as an attempt 'to squeeze more value out of planet earth and its inhabitants: i.e. the more value you can extract out of a single space the better' (Büscher and Davidov, 2013, 8).

My thesis is based on field research from two different case studies. They demonstrate how the global production network surrounding conservation touches down with localised socio-political realities. This conservation commodity frontier forms part of a wider constellation of frontiers which intersect and interact. Importantly for my analysis, this includes a mining commodity frontier undergoing territorialising processes at three different, though intimately related, scales. Given my fieldwork took place in eastern DRC, I was particularly interested in

[16] The Clean Development Mechanism permits countries signed up to the Kyoto Protocol to implement projects to reduce emissions in developing countries. These projects earn tradeable emission reduction credits which contribute toward the Kyoto targets of the country implementing them.

how these different commodity frontiers and their interactions play out in a region where the state is weak or absent and territorial control fragmented.

## 3. Commodity frontiers and the nation state in DRC

From the perspective of world-systems theory, the DRC would be considered a country firmly on the periphery of the global economic order, rather than at the core. From a purely structuralist standpoint, this is what sets the terms under which the DRC engages with capitalism and its development trajectory more broadly.

However, it is also true that the dynamics of power internal to nation states affect how the expansion of conservation and mining plays out. As is the case in much of sub-Saharan Africa, the state in eastern DRC is a long way from Max Weber's notion of an ideal-type government that enforces regulations backed up by a monopoly over violence. Rather than providing public services or security, the DRC's leaders and institutions themselves often resort to violence as a way to pursue personal interests. Elites effectively see disorder as an instrument of political power, rather than something to be managed and suppressed (Chabal and Daloz, 1999). International and domestic commodity frontiers interact with this fractured state system in a number of ways. Conventional theories of state-making, which focus on more centralised or hegemonic forms of control, do not suffice as tools to explain these dynamics.

Several authors have attempted to describe the structure of African states. They have explored how elites operate within these states, and how these states relate to international markets. For instance, in his seminal book on the 'politics of the belly', Jean-François Bayart suggested African political elites typically work across horizontal networks and employ 'strategies of extraversion' to consolidate control over resources and the benefits of global capitalism. Bayart uses the metaphor of a rhizome (an underground root network) to describe the 'web of informal connections, carefully negotiated privileges – notably impunity for economic offenses – and personal and political relationships' that comprise African state systems (Bayart et al., 1999, 88). These clandestine connections are generally structured across familial or tribal lines, rather than a society or nation. They gear political activity primarily toward private economic accumulation, at the expense of public service provision. Consequently, these networks muddy distinctions between state and society, public and private, legal and illegal. Under these conditions, the social contract between state and citizens is weak; at worst, it is totally absent. Living in the milieu of a rhizome state, many people long for the sense of stability and predictability that a more hegemonic sovereign provides. At the same time, they continue to participate in activities – corruption, illicit resource uses, armed rebellion – that serve to undermine state consolidation in the long run. Ultimately, most people maintain an indecisive posture toward governmental authority.

Building on Bayart's analysis, William Reno (1995) introduced the idea of the 'shadow state' to describe the repeated involvement of high-level government actors in illicit commercial activities. Using the case of Sierra Leone as an illustrative example, he demonstrates the increasing entanglements between politics and illegal practices: including tax avoidance, illegitimate taxes, coercive extortion, barter deals, illicit production, smuggling, and protection rackets. Many authors have since used the concept of a shadow state to explain

formal/informal dichotomies across a variety of African, Asian and Latin American contexts (Bayart, Ellis and Hibou, 1999; Reno, 1999; Duffy, 2005; Fernández-Kelly and Shefner, 2006; Verbrugge, 2015; Peluso, 2018; Geenen and Cuvelier, 2019). Reno (1999) further developed these ideas in Warlord Politics. In this book, he explored how clandestine relations between politicians and business people come to permeate virtually all sectors and hierarchies of state infrastructure: from the provision of security, the development of a functioning bureaucracy, to the delivery of public services (Reno, 1999). Bayart et al (1999) later termed this invasion of informal political networks into ever wider spheres of economic activity a 'criminalisation of the state'. Warlord or criminalised state systems often lead to the privatisation of violence through security companies, non-state armed groups, bandits and self-defence forces. All of this – the absence of a clear sovereign, the normalisation of illegality, the multiplication of armed actors – creates very specific conditions for international flows of finance and commodities frontiers to spread out and accumulate value.

Eastern DRC, the region in which my research is positioned, can be considered a particularly volatile and peripheral region even within the state of DRC. It is located close to the DRC's national borders with Uganda, Rwanda, Burundi and Tanzania. It is likely the part of DRC where the government has least control and vast swathes of territory are under the sway of armed groups. According to Kivu Security Tracker (2021), about 130 such groups currently roam the countryside in North and South Kivu Provinces. Some of these groups are of Congolese origin (for example the Mai Mai and Raia Mutomboki), others are from neighbouring countries but have taken refuge in eastern DRC (such as the FDLR/CNRD). Sometimes these groups have an informal understanding with members of the local police force or government military. Sometimes they build clandestine connections with political parties, individual politicians or business people, who can provide weapons and buy goods these groups offer for export, notably minerals. These groups derive revenues from the natural resources found inside protected areas, occasionally through direct extraction and sale, but also through the control and taxation of key trading routes (Schouten, 2022). They often provide protection for people seeking to exploit resources in contested areas, outside of state control, which sometimes leads to strong local support (Verweijen, 2018; Verweijen and Marijnen, 2016). Sometimes these militia groups have a strong affiliation with specific ethnic groups or communities whose interests they claim to represent. For thousands of young men, these groups provide not just a way to make a living, but a sense of meaning and social purpose (Vlassenroot, Mudinga and Musamba, 2020).

To summarise: to understand how international flows of capital for conservation and mining touch down in eastern DRC, it is critical to understand the nature of the Congolese state (or lack of it) and how this affects the localised political economies of violence in which processes of territorialisation inevitably unfold. The absence of centralised state power has huge costs for many people, not least by maintaining seemingly perpetual conditions of precarity. However, state weakness can also represent an opportunity to access the benefits of frontier expansion. In other words, people tend to have mixed feelings with regard state power: on the one hand, they desire greater security and the provision of public services, i.e. the experience of hegemony. On the other hand, they do not want to forgo the chances for autonomy and occasional economic gain which arise in a landscape characterised by both capitalist extension and a plurality of shifting sovereigns.

## 4. The consequences of frontier expansion

### *4.1. The territorialisation of space*

In eastern DRC, commodity frontiers are (dis)organised through the kind of state system described above. This leads to the gradual reordering of local socio-ecological realities through territorialisation and leads to violent enclosure, dispossession and the accumulation of private profit (Kelly, 2011). In this regard, many extractive and conservation projects could be compared to other forms of 'land grabbing', such as for commercial agriculture and big infrastructural projects (Fairhead, Leach and Scoones, 2012; Hall *et al.*, 2015). As a result, local communities lose access to common pool resources and lands, while becoming 'adversely incorporated' into new territorial arrangements as low-wage labourers (Hickey and du Toit, 2013) or excluded from them all together as a 'surplus population' (Li, 2010).

The concept of 'territorialisation' is central to understanding the geographical and political changes that occur on commodity frontiers. It has been defined as activities aimed to consolidate control over space, resources and people (Rasmussen and Lund, 2018). Its roots are in Sack's (1983:55) pioneering work on 'human territoriality', defined as 'the attempt to affect, influence, or control actions, interactions, or access by asserting and attempting to enforce control over a specific geographic area.' Over a decade later, Vandergeest and Peluso (1995:388) developed the related concept of 'internal territorialisation', described as state-led attempts to exclude or include 'people within particular geographic boundaries' and control what activities and resource uses are permitted within those boundaries. The fact that the concept can account for territorial processes at both the national and sub-national level makes it relevant for my analysis, which seeks to understand interactions surrounding mining and conservation frontiers located within the bounds of a single nation state.

The territorialisation of conservation and mining frontiers rarely occurs on a blank slate. Protected areas and mines are almost always nested within and on top of both lower- and higher-order territorial structures. These range from the nation state (and its shadow), sub-national regions to customary land-arrangements – which are all penetrated by global capital. Hence, both protected areas and mines must be 'configured in relation to existing territories' (Bluwstein and Lund 2018:2). Regarding the multi-scalar nature of territorialisation, Vandergeest and Peluso (1995:388) describe how the 'construction of [abstract space] permits the location or nesting of an area in a larger abstract space. The territory of a national park is nested in national territory, which is nested in a global territorial grid.' In this regard, lower-level territorial structures can exist before the imposition of conservation or mining projects, or come into being after a protected area or mine have been established. The result is a 'layering' of territorial regimes.

Roth (2008: 373) argues that when different state and local resource management systems intersect in a particular location – such as around a protected area or mine – they can either conflict, converge or correspond. According to this logic, territorialisation for mining or conservation can be considered moments of spatial reconfiguration, with some people gaining and others losing out, as a result of the new territorial structures that emerge. In turn, the 'different spatialities associated with local and state management are neither fixed nor inherent; they can change and evolve as the [social and environmental] processes that

produce them also change (Roth 2008: 388).' This is particularly true in the context of legal or normative heterogeneity, such as in post-colonial and post-socialist societies (Sikor and Lund, 2009), and in regions affected by protracted insecurity such as eastern DRC.

Commodity frontiers do not generate costs and benefits in a binary fashion. Instead, they produce multifarious consequences that shift over time both within and between social groups. This is especially true in contexts like eastern DRC, where successive governments have failed to deliver basic public services let alone security for large parts of the population. On some occasions, people are dispossessed and marginalised through efforts to control and extract the resources located in frontier regions. On other occasions, the territorialisation of commodity frontiers can deliver benefits to part of a population in the form of security, opportunities for development and employment (Balint, 2006; West, 2006; Kelly, 2014; Kelly and Gupta, 2016; Titeca *et al.*, 2020). Inspired by Verbrugge and Geenen (2019, 414), the subsequent section builds on the idea that frontier expansion is not only negative 'but also creates space for something new…where (new) forms of governance, social norms and cultural practices emerge from the articulation of global and local dynamics.'

*4.2 Diverse responses from below*

At the local level, individual agents and social groups respond to the territorialisation of frontier constellations in various ways. Some rural communities resist the land-use changes frontiers engender; others – most likely the elites – might seek favourable terms in which to have themselves incorporated into the new territorial arrangements that emerge. Some populations might choose to resist the advancement of one frontier while seeking to favourably integrate themselves into the new social arrangements produced at another. In the following paragraphs, I outline the key responses 'from below' to frontier expansion.

I will begin with the large body of literature on resistance. I summarise some of the key 'modes' of resistance identified in the theoretical literature. After that I focus on specific patterns of resistance to the expansion of conservation and extraction commodity frontiers. Acts of public or overt resistance can involve 'violent forms of political action – e.g. riots, rebellion, revolutionary movements' and 'less violent forms – e.g. petitions, rallies, peaceful marches, protest voting, strikes, boycotts' (Scott, 1989, 33). A form of resistance closely associated with public resistance is known as 'rightful resistance' (O'Brien, 1996, 33) whereby resisters couch their claims within the context of existing laws and policies. In doing so they aim to demonstrate ways in which politicians and economic elites are not living up to their own, self-professed standards. Everyday resistance is apparent in 'foot-dragging, dissimulations, false compliance, feigned ignorance, desertion, pilfering, smuggling, poaching, arson, slander, sabotage, surreptitious assault and murder, anonymous threats, and so on' (Scott, 1989, 34). One of the main differences between everyday and public resistance is the degree of change that the resister aims to achieve: 'Where institutionalised politics is formal, overt, concerned with systematic, de jure change, everyday resistance is informal, often covert, and concerned largely with immediate, de facto gains' (Scott, 1989, 33).

There are numerous examples of overt resistance to conservation. Local populations can engage in direct violence against conservation personnel to access park resources. Overt

resistance also occurs when populations openly destroy resources inside protected areas to protest conservation regulations. In other cases, communities have made use of formal/legal strategies of rightful resistance (Norgrove and Hulme, 2006; Cavanagh and Benjaminsen, 2015). The conservation literature draws heavily upon the concept of everyday resistance. For example, in a review of thirty-four published case studies, Holmes (2007) identifies everyday resistance to conservation patterns at different temporal and spatial scales. He argues that the continuation of banned livelihood practices inside protected areas, ranging from collecting resources to (re)occupying farmland, can be considered an implicit form of resistance. Other innovative work has uncovered resistance against conservation that is tactically heterogeneous. For example, Cavanagh and Benjaminsen (2015) show how famers draw upon a range of resistance tactics, some overt some covert, to support a strategy of 'guerrilla agriculture' within Uganda's Mount Elgon protected area.

Resistance to extraction has ranged from public-facing, rights-based approaches such as 'legal court cases, activist-scientist collaborations and local referendums or "consultas" at community level' (Conde, 2017, 80) to more violent tactics. The latter can include attacking and destroying the property of mining companies and even the kidnapping of their employees (see Geenen and Verweijen, 2017; Verweijen, 2017). Public and rightful resistance to extraction appears to increasingly take place through what Conde (2017, 80) describes as 'cross scalar alliances' which combine 'local narratives and alternatives' with 'global discourses (to clean water, to take decisions, indigenous rights) and environmental justice' in order to achieve their goals. Other work has focussed specifically on everyday resistance to extractive projects. For example, Jenkins (2017, 1455) describes how in the Andes, 'anti-mining activist women exemplify the extent to which their resistance forms part of a mostly unspectacular but constant struggle…a continual presence in their lives.'

As indicated above, local responses to processes of dispossession at extraction and conservation frontier constellations are varied, not predetermined. Thus, resistance is far from the only reaction to the territorialising projects – mines, protected areas, logging concessions or commercial farms – that take place on commodity frontiers in weak and fragmented state systems such as DRC. There are cases, for example, where people want to incorporate or improve the terms of their incorporation into the projects taking place in frontier regions. This form of engagement with wider capitalist processes can be considered a form of economic 'extraversion'. In an attempt to account for the diversity of responses to the expansion of capitalism in frontier regions, Hall *et al* (2015) introduce the notion of 'political reactions from below', which encompasses both resistance and economic insertion into the new territorial regimes which emerge.

From the colonial era until the present day, the expansion of commodity frontiers into new territories has provided Africans, typically the elites, with new opportunities for extraversion and capital accumulation. Where the shadow state dominates, external actors wishing to derive value from the resources located in commodity frontiers must simultaneously negotiate with both branches of the state system to territorialise land (Bayart, Ellis and Hibou, 1999). This inevitably includes the non-state actors that exert territorial control, such as armed groups, self-defence forces and customary authorities. In eastern DRC, these groups in turn maintain strong relationships with official agents of the state. There are also cases where communities come together and seek allies in order to gain access to the benefits of

new land deals (Hall *et al.*, 2015). Terms of inclusion determine whether or not people mobilise for or against different territorial projects (McCarthy, 2010).

In regions where the state is weak or absent, sometimes people go a step further than seeking simple economic incorporation: they can come to view conservation or extractive initiatives as an opportunity to establish a replacement social contract – that is, a means of security and basic public services, effectively filling in for the government. These alternative social contracts typically offer some form of mutual benefit and impose some obligations or restrictions. Thus, the people who are party to them explicitly or implicitly accept certain responsibilities (e.g. hunting restrictions, new territorial arrangements, participation in community patrols, restricted access to mining sites) in return for certain benefits (e.g. maintenance of order, land security, continued access to protected area buffer zones, increased wildlife populations, jobs, development opportunities). On this basis, we need to understand 'how and why rural people engage with capitalism' as opposed to simply assuming their resistance to its advance (Hall *et al.*, 2015, 475).

People are arguably more likely to seek incorporation with conservation initiatives or mining operations in regions where the state is weak or absent. Where there are no or limited public services, people could come to project their longing for a state-like entity onto frontier actors, be they conservation NGOs or mining companies. In this regard, prolonged government neglect and a lack of alternative opportunities could lead to a structural tendency for people to accept less than favourable terms of incorporation: 'Typically, local communities that see no state support forthcoming are told [either explicitly or implicitly] that corporate investment is the only option for their livelihoods' (Hall *et al.*, 2015, 472). This can occur even in the context of significant negative impacts. Arsel, Pellegrini and Mena, (2019), for example, found that people supported expansion of oil extraction in the Ecuadorian amazon despite the negative consequences upon their lives and livelihoods. They responded this way due to 'the absence of meaningful pathways to socio-economic development' (p.19) which force them to opt for intensified extraction despite its pernicious effects. The interactions at frontier constellations may also shape diverse responses from below.

People may choose to resist one commodity frontier but seek incorporation into another. Büscher and Davidov's (2013) edited book on the eco-tourism/extraction nexus provides several relevant examples. In Palawan, an island province of the Philippines, Elisabet Rasch (2013) shows 'how the idea of ecotourism is politicised and strategically deployed by local political actors to oppose the development of nickel mining projects on the island' (Davidov and Büscher, 2013, 12). In other cases, the failure to deliver conservation benefits leads to support for extraction as an alternative source of revenue. James Stinson (2013) presents an example in southern Belize where an indigenous ecotourism project caused the recipients to undergo a subjective shift. Nature came to be viewed as a source of monetary wealth as opposed to something of intrinsic worth. When ecotourism failed to deliver on their hopes, the community turned its gaze toward another source of income: oil exploration activities inside the national park. Thus, the way in which people react to the territorialisation of different commodity frontiers is not obvious or pre-determined, but dependent on a wider set of structural dynamics. Among others, this includes the nature of the nation state; the relative costs and benefits produced through mining and conservation activities; and the effects of other projects to control territory, resources and people.

## 5. Conclusion

This chapter has presented a conceptual framework to understand how conservation pans out in a violent frontier region. It conceptualised conservation as an activity which takes place on a commodity frontier, which links up to a global capitalist system. In eastern DRC, this conservation commodity frontier interacts with an international mining commodity frontier and more locally oriented forms of renewable resource extraction. I zoomed in on the weakened state system through which international capital flows for conservation are funnelled. At the local level, I highlighted how the territorialisation of frontiers produces diverse reactions from the bottom up. I identified covert and overt forms of resistance, but also efforts for incorporation into the economic benefits of frontier expansion. Some people even look to frontier actors as a guarantor of stability, predictability and basic public services, i.e. what is normally the purview of a competent nation state. The following four empirical chapters will deploy different elements of the theoretical framework I have outlined to highlight the form and effects of conservation in South Kivu. In the final conclusion, I will discuss the implications of my findings for the various components of this framework, avenues for future research, and possible strategies for conservation in eastern DRC.

# CHAPTER 3. 'DOUBLE' FRONTIERS AT THE EDGE OF STATE: INTRODUCING TWO CASES FROM EASTERN DRC

This chapter is an adapted version of the following published article:

Vuola, M., Simpson, F.O., 2021. *The case of 'double' mining and conservation frontiers: evidence from DRC and Madagascar*. IOB Discussion Paper. Institute of Development Policy, University of Antwerp.


## Abstract

This chapter contributes to the literature on commodity frontiers by investigating the factors which lead two different types of frontier to overlap. Concretely, it focuses on intersecting commodity frontiers produced through biodiversity conservation and mineral extraction, which increasingly compete for control over land and resources. With reference to two cases from eastern DRC, I describe the advance of commodity frontiers through the territorialisation of rural landscapes via different types of protected areas (strict, flexible) and scales of mining activity (artisanal, semi-industrial, industrial). I argue that flexible approaches to protected area management and artisanal and semi-industrial scales of mining can be viewed as territorial adaptations that make it possible for commodity frontiers to co-exist where strict conservation and large-scale mining would likely exclude one another. 'Double frontiers' are liable to emerge in weak states where the boundaries between legal and illegal have become blurred, and the state fails to maintain a monopoly over the means of violence. Rather than consolidating government control, I suggest the overlap of frontiers leads to the further pluralisation of political authority over time and space.


## 1. Introduction

There is considerable overlap between mining activities and conservation efforts across the world. A global study by Durán, Rauch, and Gaston (2013, 272) found seven per cent of legal mining sites associated with four key metals (aluminium, copper, iron, zinc) coincided with the boundaries of protected areas. A report by Villegas et al. (2012, 10) found artisanal mining took place in 96 out of the 147 protected areas included in a study of seven World Heritage Sites and of twelve of the World Wildlife Fund's priority landscapes. The drive to designate land to protected areas is accelerating. One campaign group advocates fifty percent of the global surface area be allocated to conservation by 2030.[17] Mining activities have also undergone a significant 'boom' since the early 2000s (Ayelazuno, 2014; Arsel, Hogenboom

[17] See Nature Needs Half Movement: https://natureneedshalf.org/

and Pellegrini, 2016). While both mining and conservation continue to expand, the global overlap between mining and conservation is also expected to increase (Sonter, Ali and Watson, 2018).

This chapter sheds light on the factors that give rise to overlapping mining and conservation activities in the context of political instability and state fragility, and the impact this has on the overall constitution of power and authority. I utilise Vuola's (2022) notion of 'double frontier' to highlight the similarities between conservation and mining, suggesting both activities form part of commodity frontiers, or regions where new resources are being incorporated into the global capitalist system. Though ostensibly contradictory in terms of what they set-out to achieve, mining and conservation commodity frontiers often have similar consequences for, typically, rural populations (Büscher and Davidov, 2013). They re-organise landscapes through processes of enclosure, dispossession and accumulation, which in some cases leads to the eradication of common pool resources and indigenous lands. At the same time, they can also present opportunities for improved security, economic gain and development (Fairhead, Leach and Scoones, 2012; Büscher and Davidov, 2013). In other words, the effects of frontier expansion are not binary or monocausal.

In line with Rasmussen and Lund (2018), I frame mining and conservation commodity frontiers as organised through processes of territorialisation. These processes are diverse and can be disaggregated according to their scale and form. By unpacking multivarious territorialisations, it is possible to observe the manifold interactions taking place at the spaces 'in-between' different frontiers as well as the diverse ways in which frontiers overlap and intertwine. Territorialisation for mining occurs at artisanal, semi-industrial and industrial scales. Territorialisation for conservation, on the other hand, includes flexible and strict protected area designations – which often co-exist within a single national park or nature reserve. All of these different territorialisations interact with one another and with the particular political economic realities of different nation states and sub-national regions. Where the government is weak and state agents are themselves implicated in illicit resource extraction, the presence of double frontiers most often does not lead to neatly divided territorial units. Instead, it generates a diverse patchwork of sometimes peacefully converging, and at other times violently contested, territories – further fragmenting and pluralising authority.

To illustrate the multifaceted intersections and interactions taking place at double frontiers, I present data from eastern DRC's South Kivu Province. The DRC has attracted the attention of frontier actors from the colonial era up to the present day. The country has undergone severe crises which have acutely weakened the authority of successive governments: colonisation and independence, two civil wars and economic collapse, along with several waves of political turbulence (Prunier, 2009). Its resource rich eastern provinces have long been the target of international conservation financers and count the mining sector as an important source of foreign investment and local employment (Trefon, 2016). While instability has posed enormous challenges for many Congolese, political and economic elites have used persistent disorder to their advantage (see Chabal and Daloz, 1999), as a way to access the natural resource rents produced at commodity frontiers.

In terms of specific case study sites, I opted for eastern DRC's Kahuzi-Biega National Park and Itombwe Nature Reserve. The first represents a classic fortress conservation area enforced

by military techniques and technologies, where local populations are, at least on paper, not allowed to enter its boundaries and gather resources. The second represents a conservation frontier that is still in the process of being territorialised through a flexible or zoned approach, which allows some land and resource uses to continue in certain areas. These protected areas overlap with a mining frontier that has cyclically contracted and expanded over time through processes of territorialised at three separate (though related) scales; each of which brings together different assemblages of techniques, technologies and actors.

Field research was conducted in eastern DRC's South Kivu Province during around six months between August 2019 to February 2020, and an additional two months in April and May 2021. Throughout this period, I worked alongside teams of local researchers to conduct multiple field visits to communities around both Kahuzi-Biega National Park and Itombwe Nature Reserve. On a few occasions I also entered the protected areas themselves to interview people living and using land and resources inside their boundaries. In terms of data collection, I relied on qualitative research methods, including focus groups, semi-structured interviews, participant observations, extensive field notes, and transect walks. I triangulated the data through an extensive review of NGO reports, maps, decrees, traditional and social media, and correspondence via WhatsApp. To analyse the data, I used an approach which combined induction and deduction, iteratively weaving back and forth between the theory and the data to develop codes and categories.

The chapter proceeds as follows. I begin with a theoretical section introducing the notions of commodity frontiers and territorialisation in the context of state weakness. Following that, I provide a general overview of mining and conservation frontiers in eastern DRC, demonstrating the different forms of territorialisation which take place upon them. I then provide an in-depth analysis of the interactions and overlaps between the mining and conservation frontiers in my specific case study sites. Finally, I discuss the chapter's key contributions to the literature on frontier dynamics in regions where the state is weak or absent. Firstly, flexible forms of conservation governance and semi-industrial and artisanal forms of mining represent systemic responses which allow different frontiers to overlap and expand into previously inaccessible areas. Secondly, states where the boundaries between legal and illegal blur, are likely to be particularly propitious to the emergence of double frontiers. This allows more and more value to be derived from the resources located within individual parcels of land, yet without necessarily increasing the power of the nation state.

## 2. Double frontiers at the edge of state: a conceptual framework

The notion of the 'commodity frontier' is used to understand socio-environmental transformations occurring through the expansion of capital accumulating activities – arising from attempts to derive commercial returns from the production of goods and services for commercial markets – into new and under-exploited regions (Rasmussen and Lund, 2018). Here I present a framework to understand the commodification of natural resources in frontier zones specifically in a region where the state is weak or absent.

Frontier expansion always starts with an innovation, a new mode of production or commodification of nature, designed to enable new avenues for wealth accumulation

through global networks of production and consumption (Moore, 2000; Barney, 2009; Rasmussen and Lund, 2018). The advance of frontiers typically sets off dramatic shifts in socio-environmental relations, bringing to life new systems of resource access and control, including the exclusion and displacement of previous land and resource users, as well as new patterns of opposition and resistance (Peluso, 1992; Holmes, 2007; Conde and Le Billon, 2017). Frontiers are temporal configurations in which relations of authority, ownership and production are continually reordered through the establishment of new territorial enclosures and property regimes (Peluso and Lund, 2011). They bear witness to the transformation of socio-ecological systems via the medium of global capitalism (Moore, 2015), resulting in new 'encounters between knowledge practices, jurisdictions, and visions of modernity, development, and progress' (Rasmussen and Lund, 2018, 392).

Here I focus on mining and conservation commodity frontiers: the former concerned with the extraction of abiotic commodities from inside the earth, the latter with the preservation of biological lifeforms usually (though not exclusively) located above ground. Although seemingly contradictory in their fundamental aims, a closer examination of mining and conservation frontiers reveals striking similarities in terms of their strategies, logics, impacts on local communities, and the actors that participate in their expansion. Mining is a classic example of an activity that takes place on a commodity frontier, bringing a wide range of minerals, metals and hydrocarbons into the global market place (Acosta, 2013; Arsel, Hogenboom and Pellegrini, 2016a; Verbrugge and Geenen, 2020). When it comes to conservation, the commodities it produces are perhaps less tangible, yet increasingly capitalistic (Kelly, 2011; Brockington, Duffy and Igoe, 2008; Büscher, 2013). Conservation success stories, nature spectacles and ecosystem services can all be considered among the commodities produced through conservation, which are effectively 'sold' to philanthropic organisations, tourists and governments (Castree, 2003; Igoe and Brockington, 2007).

I frame both conservation and mining commodity frontiers as organised through processes of territorialisation. Territorialisation involves establishing mechanisms to consolidate control over space, including the land, resources and people within it (Rasmussen and Lund, 2018). Although states are generally considered the principal actors engaged in the territorialisation of sovereign space (Vandergeest and Peluso, 1995), non-state actors also exercise considerable territorial control in frontier zones (Eilenberg, 2014). International NGOs, private businesses and non-state armed groups have all played significant roles in the creation and contestation of mining territories and protected areas over the last several decades (Corson, 2011; Lombard, 2016; Geenen and Verweijen, 2017; Verweijen, 2017). State-led territorialisations are, effectively, forced to 'wrestle with contending demands and actions of individuals, communities, and other sub-state groups who want authority, jurisdiction, or control over land and resources and not simply access for use' (Peluso 2005, 2).

Territorialisation of the mining frontier occurs at three related scales. Artisanal mining involves low-tech, labour-intensive methods of extraction and is usually informal (Hilson, 2009). Industrial mining involves open-pit and underground mining operations. It is capital intensive, driven by private actors and authorised by states. While the literature on mining frontiers often presents artisanal and industrial-scale mining as dichotomous (e.g. Bebbington et al. 2008; Gamu, Le Billon, and Spiegel 2015; Fisher 2007; Hilson and Garforth 2012), a wide variety of activities and scales of production exist between these categories. I distinguish

between artisanal and industrial mining, and add a third category of 'semi-industrial' mining. Semi-industrial mines can emerge as a development upon artisanal mining, when miners increase the scale and intensity of extraction through the introduction of new production processes and technologies, such as cyanidation (Verbrugge, Lanzano and Libassi, 2021). Semi-industrial mining operations can also be introduced externally by junior or mid-tier mining companies, which are typically willing to take greater risks than fully industrialised firms (Dougherty, 2013). For example, a number of Chinese-backed semi-industrial gold mining operations have emerged over recent years in Madagascar, Ghana, the Philippines and DRC (Global Witness, 2016; Geenen and Marijsse, 2020; Verbrugge and Geenen, 2020).

Conservation is typically pursued through the establishment of protected areas. European colonial administrations created the first protected areas in Africa, which initiated the territorialisation of landscapes across the continent through the exclusionary conservation model, later termed 'fortress conservation' (Brockington, 2002). Protected areas established according to this paradigm were criticised for displacing the people living around them. As an alternative to fortress-style protected areas, conservation practitioners promoted more community-based, participatory approaches to natural resource management in the 1980s (Roe, 2008). Community conservation areas allowed local populations continued access to resources and land inside protected areas – as well as a say in how those areas are managed. More recently, new governance structures for conservation have been promoted based on global markets, which subsequently opened the sector to increased participation by private actors (Igoe and Brockington, 2007; Igoe, Neves and Brockington, 2010; Büscher and Fletcher, 2014). This is manifest in the growth of the ecotourism industry, the growing corporate sponsorship of conservation organisations, and the emergence of payments for ecosystem service projects (Brockington, Duffy and Igoe, 2008).

In line with the expansion of global capitalism, increasing overlaps between different types of commodity frontiers can be observed. The commodities driving frontier expansion and overlap include, among others, those centred around agriculture, fish products, forestry, genetic resources, and (of course) mining and conservation activities. I zoom in on the latter two through Marketta Vuola's (2022) framework of the double frontier, which suggests mining and conservation frontiers can overlap in a number of ways, ranging from synergy, competition and conflict, to forms of co-ignorance. My analysis explicitly builds on her work by disaggregating the ways in which different territorialisations for conservation and mining overlap. In addition to this, I seek to understand the factors which cause double conservation and mining frontiers to emerge in the first place, and the consequences of this overlap for the wider constitution of power and authority in regions where the state is weak or absent.

Past research suggests the convergence of different frontiers leads to a consolidation of control. For example, in their classic book on the eco-tourism/extraction nexus, Büscher and Davidov (2013) argue the increasing overlap between ecotourism and mining has led to what Nealon (2008) describes as an 'intensification of power' – where more and more value is extracted from the resources located within specific portions of land over less and less time. Their analysis explicitly focusses on the overlaps between conservation and mining from the vantage-point of neoliberalism and capitalist interests. Other work pays more attention to the impact converging frontiers have on the power of the nation state. For example, based on research in Cambodia, Käkönen and Thuon (2019) found that overlapping hydropower,

logging and conservation zones converged in ways that facilitated state territorialisation (even if the frontiers were driven by international actors) and the exclusion of local land and resource users. With insights from the Indonesian-Malaysian borderlands, Eilenberg (2014) showed how the expansion of commodity frontiers can interlock with wider development and security policies to bolster government control. Here I present a somewhat different reading, by effectively turning the above analyses on their heads.

It is the absence of state control in eastern DRC which is primarily responsible for the emergence of double mining and conservation frontiers. The state in DRC, within which mining and conservation frontiers are embedded, is almost diametrically opposed to Weberian notions of an ideal-type system of governance. Successive governments have not maintained a monopoly over the means of violence, nor delivered key bureaucratic functions or social services for their citizens. Rather than enforcing the boundaries between different territories (for mining, conservation and other activities), state agents have taken advantage of the legitimate apparatus of government control to pursue private ends (Bayart, Ellis, and Hibou 1999; Reno 1999). For example, ministers in Kinshasa frequently allocate large concessions for conservation and mining on top of one another. They likely do this to gain access to a portion of the large capital investment that surrounds these activities, yet without adherence to the DRC's laws. In the east of the country, territorial control has become fragmented and contested between multiple state (the government military, police force, eco-guards) and non-state (rebels, bandits, criminal gangs) armed actors, many of which seek to profit from illicit forms of resource extraction taking place on commodity frontiers. In this context, it has become virtually impossible to enforce the boundaries of different territorial zones or concessions for either conservation or mining.

By focussing on the state, I do not intend to diminish the significance of global production networks and international flows of capital as organising forces upon commodity frontiers. Indeed, international capital has a way of overcoming social, ecological and political constraints to its expansion (Moore, 2000; Verbrugge and Geenen, 2019) – and this is no different in eastern DRC. One way in which capital flows for conservation and mining have found a way around restrictions in the region (such as local resistance and NGO advocacy campaigns) is through adaptations in terms of their form, scale and the actors involved. I argue that the mining frontier has undergone systemic adaptation away from industrial mining toward artisanal and semi-industrial mining. The latter two are able to (at least partially) circumvent some of the political, legal and operational constrains faced by industrial-scale mining companies, and in so doing, maintain the flow of minerals from eastern DRC into the global marketplace. At the same time, expansion of the conservation commodity frontier in eastern DRC is increasingly facilitated through more flexible, community-oriented approaches. This has occurred in the wake of widespread resistance to more coercive approaches of natural resource governance and increasing scrutiny of conservation's excesses. The result of these adaptations is not just an increase in the size of territories allocated to either mining or conservation, but also an increase in the extent of the overlap between protected areas and mines. Put simply: the double frontier is growing.

As the cases I present from eastern DRC will demonstrate, the expansion of mining and conservation commodity frontiers (and the forms of territorialisation that take place upon them) dramatically change the constitution of power and authority at the local level. My work

departs from analyses which emphasise how the territorialisation of frontiers leads to the expansion of state power (Eilenberg, 2014; Käkönen and Thuon, 2019). It also offers something different from studies which emphasise the potential of frontiers to create enclave-like territories (Ferguson, 2005; Marijnen, 2018). Instead, where double mining and conservation frontiers touch down in regions where the state is weak and fragmented, I argue the result is likely to be a further pluralisation of authority and political power. This occurs as more and more actors resist and/or seek incorporation into the new territorial arrangements that emerge. The expansion of double frontiers can essentially be seen to accentuate the dynamics already at play. In sum: my exploration of double mining and conservation commodity frontiers brings into focus the ontological and material entanglements that occur when international capital flows come into contact with micro-level socio-ecological realities.

## 3. Double conservation and mining frontiers in DRC

Next I provide an overview of the evolution of mining and conservation frontiers in the DRC, from before the colonial era up until the present day. I demonstrate how protected areas were first territorialised as flexible nature reserves. They were later consolidated as exclusionary conservation areas after the DRC's independence in the 1960s. In recent decades, the expansion and consolidation of the conservation frontier is once again being facilitated through more consensual, community-based forms of conservation – which sometimes allow mining at an artisanal scale in flexible conservation zones. I elaborate on how mining frontiers have expanded and contracted over time in response to wider political economic developments, through processes of territorialisation at various scales. While the industrial mining frontier is in a state of contraction in eastern DRC, territorial adaptations toward artisanal and semi-industrial mining have enabled the mining commodity frontier to continue to expand both inside and close to protected areas.

### *3.1. The conservation frontier*

The DRC is home to the second largest tropical rainforest in the world. With a wealth of unique biodiversity, its ecosystems have provided a means of livelihood and culture for Congolese people for generations. Since even before colonisation, this natural wealth has been the allure of European hunters, biologists and explorers. The country's forests alone contain over 1,000 species of birds, 421 types of mammals and 302 reptile species (cited in Trefon, 2016, 17). The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has now listed five of its national parks as World Heritage Sites. A study of goods and services produced by protected areas in the wider Congo basin estimates their total economic value to be an enormous US$ 603,468,014,907 (Hugues, 2011, 130). The value – including capitalistic value – of the DRC's biodiversity has therefore been widely recognised.

Although the practice of customary conservation is ancient, Congolese landscapes have been territorialised since the colonial era through the establishment of protected areas.[18] King

[18] According to ICCN's website (https://www.iccnrdc.org/parcs.html), the DRC comprises nine national parks and 63 related reserves (hunting areas and wildlife reserves) which represents approximately nine percent of

Leopold II created the Albert National Park in 1889, which happened to be Africa's first protected area, and renamed it Virunga National Park in 1925. The Belgium colonial administration created several other protected areas over the decades that followed. In the province of Haut-Uele, Garamba National Park was established in 1938. In South Kivu, the Zoological and Forest Reserve of Mount Kahuzi was created in 1937. The Bakumu Hunting Reserve was designated in 1949 in what were at the time North Kivu, Orientale and Maniema provinces. Although it was the colonial regime which first territorialised landscapes for conservation purposes, the post-independence government of President Mobutu consolidated the state's territorial control over several protected areas by changing their status from 'nature reserve' to 'national park'. For example, the Zoological and Forest Reserve of Mount Kahuzi became Kahuzi-Biega National Park and Bakumu Hunting Reserve became Maiko National Park in 1970. Concretely, this meant the imposition of more coercive conservation practices, i.e. fortress conservation, and that – at least in legal terms – local populations would no longer be able to access land or resources within their boundaries.

In DRC and elsewhere in the world, protected areas territorialised from the top-down have typically been met with significant local resistance (Scott, 1985; Lilja *et al.*, 2017). Virunga and Kahuzi-Biega National Parks have been racked by violent conflicts with populations surrounding their borders (Hochleithner, 2017; Verweijen and Marijnen, 2016; Simpson and Geenen, 2021; Flummerfelt, 2022). Other protected areas, including Garamba National Park and Okapi Wildlife Reserve, have at times enjoyed a greater degree of community acceptance (Inogwabini, Ilambu and Gbanzi, 2005), but have also experienced considerable park vs people conflict over recent years (Titeca and Edmond, 2019; Titeca *et al.*, 2020). The presence of armed groups in around protected areas in eastern DRC poses further challenges for the coercive enforcement of conservation regulations (Verweijen and Marijnen, 2016; Titeca and Edmond, 2019; Simpson and Geenen, 2021). The Congolese conservation agency ICCN and its international partners have sought new ways to expand the conservation estate. They have once again started to experiment with more flexible, community-oriented protected areas. Consensual approaches are intended to reduce conflict with local populations as well as avoid the international opprobrium militarised approaches to conservation have received over recent years (Duffy *et al.*, 2019). Addressing livelihood concerns through new conservation models effectively opens up new regions for frontier expansion

There are numerous community conservation initiatives in DRC. Established in 2006, Itombwe Nature Reserve takes a zoned approach. Populations surrounding the reserve can still access and use resources within its boundaries, including artisanal mines. They also have a say over how the protected area is managed through devolved governance structures. Other more consensual nature reserves established since the turn of the new millennium include Lomako and Ngiri (between Equateur and Tumba-Lediima), Luki (Bas-Congo) and Tayna (North Kivu). To varying degrees, some of DRC's national parks have also started to incorporate more participatory approaches and development incentives to fix the conservation frontier and reduce opposition. For example, Virunga National Park has started a project to provide electricity for some communities living around its borders, in an attempt to reduce charcoal

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the country (± 215,000 km 2). The size of its conservation estate is likely to increase as the country moves closer to its target to have seventeen percent of the country under formal protected status (Javelle and Veit, 2012).

consumption inside the park (Marijnen and Schouten, 2019). Kahuzi-Biega National Park at one stage attempted to increase community participation through the creation of community conservation committees (CCCs). There have also been calls to downgrade some of the DRC's national park's to enable communities to access resources within their boundaries (Inogwabini, 2014). The integration of conservation with development initiatives has at times improved community relations, but rarely meets people's expectations for compensation (see chapter six of this thesis). Recently, several 'community forests' have been created across South Kivu Province. These aim to secure conservation by giving communities full legal rights to their customary lands. Community forests also establish ecological corridors to allow large mammals to migrate between protected areas.

Congo's protected areas are increasingly connected to global value chains. Private financers, development agencies and conservation NGOs have injected huge amounts of capital into the conservation frontier since the DRC gained its independence in 1960. These include Conservation International (CI), the Diane Fossey Gorilla Foundation (DFGF), World Conservation Society (WCS), World Wildlife Fund (WWF), the German Agency for Technical Cooperation (GIZ), African Parks (AP) – among many others. Some of these organisations have now established public-private partnerships (PPPs) with ICCN in order to manage protected areas. For example, Garamba National Park has been managed through a PPP between AP and ICCN since 2005. Okapi Wildlife Reserve and Kahzui-Biega National Park have been managed through PPPs with WCS since 2019 and 2022, respectively. Although never reaching the dizzying heights of the tourist sectors in other sub-Saharan African nations due to political and social insecurity, some of the DRC's parks have brought in significant tourist revenues over certain periods. For example, Kahuzi-Biega National Park's annual revenues from gorilla tourism were about US$201,000 from 1989-93 (Yamagiwa, 2008, 117). Each year hundreds if not thousands of tourists pay $400 each for the chance to see Virunga National Park's mountain gorillas in their natural habitat. However, most protected areas in eastern DRC remain off limits to travellers due to insecurity and inaccessibility. The increasing interest in payment for ecosystem service schemes, such as reduced emissions from deforestation and degradation (REDD+) initiatives, is also likely to set in motion further expansion of the conservation commodity frontier over the coming years (Windey and Hecken, 2019).

### *3.2. The mining frontier*

The DRC is one of the richest nations in the world in terms of mineral wealth. The country was once described as a geological scandal because of its large deposits of various globally significant mineral resources (Trefon, 2016). According to one estimate the country contains $24 trillion in unexploited mineral reserves.[19] Colonisation, the emergence of capitalism onto the world stage and the global hunger for metals and precious minerals has long driven the expansion of mining commodity frontiers across this Central African state. Yet, mining was not only the preoccupation of European colonialists and entrepreneurs.

[19] See The Fair Congo Initiatives: http://faircongo.com/2017/08/23/24-trillion/

Mining goes back to pre-colonial times in North Kivu where gold was gathered for customary chiefs to wear as jewellery (Vwakyanakazi, 1992). When the Belgians arrived in the 19th century, private companies started to gravitate toward the central African state to tap value from its abiotic resource wealth (Trefon, 2016). Alluvial gold deposits were identified in South Kivu province from the early 20th century, with panning and skimming taking place from the early 1920s (Bakonzi, 1982, 115). From the 1920s to the 1960s, the Belgian company *Minière des Grands Lacs* (MGL) exploited minerals in various sites across the region. These included the gold sites of Kamituga (1937), Twangiza (1957), Lugushwa (1959); the cassiterite sites of Nzombe, Mwana and Miki in Mwenga territory and Kadubu (1960s); and beryl in Kabokobo and wolfram in Etactu, North Kivu (Geenen, 2014, 101). The wealth accumulated during this period contributed to the development of Belgium as well as the rise of international business tycoons including John D. Rockefeller. In the 1930s, an economic crisis restricted growth of Congo's mineral economy. Growth accelerated once more at the time of and after the Second World War, only to slow again in 1958 with the move toward decolonisation and the flight of capital which accompanied it (Buelens and Marysse, 2009).

During the 1970s, the DRC's industrial mining frontier contracted. This was due to a lack of investment and President Mobutu's decision to renationalise the mining sector in 1976 (Geenen and Radley, 2013). In the years that followed, several international mining companies pulled out of the country altogether. Along with several other companies, MGL was integrated into the part state-owned company *Société Minière et Industrielle du Kivu* (SOMINKI). This company allowed informal miners to access several mines, thus sparking off a process of territorialisation at an artisanal scale. Artisanal mining proliferated as industrial mining decreased, especially after Mobutu liberalised the mining sector in 1982 (Geenen and Radley, 2013). Political unrest, hyperinflation and war constrained expansion of the industrial mining sector during the 1990s. When he took power in 1997, President Laurent Kabila denationalised the mining sector, in the hope of attracting private investors and growing the industry once more. However, his vision was put on hold with the resurgence of violence and instability that accompanied the Second Congo War (1998-2003). Industrial mining was brought to a virtual standstill. AngloGold Ashanti and Banro Corporation, two companies which had signed contracts with both Mobutu and Laruent Kabila, had to suspend their operations entirely (Verbrugge and Geenen, 2019).

While industrial mining became impractical under conditions of conflict, artisanal mining continued to expand (including within the boundaries of protected areas). This acceleration was partly also driven by a global 'coltan boom' (2000-2002) as demand for electronic appliances and games consoles increased (Nest, 2011). In turn, conflict rendered farming untenable in many regions of eastern DRC, leading more and more people to look to informal mining as a source of stability and security (Kelly, 2014). In the Kivu Provinces alone, estimates taken from 2007 and 2010 suggest there could be between 200,000 to 300,000 miners, which equates to about 1.75 million people dependent on mining or between nine and seven percent of the total population (Geenen and Radley, 2013). During the Second Congo War in particular, both foreign and Congolese armed groups came to play a central role in the extraction and trade in minerals. This made it difficult for authorities to prevent the advancement of the artisanal mining frontier into unauthorised zones. The involvement of armed groups in mining was particularly prevalent in the Kivu Provinces, which are rich in a variety of rare earth minerals. During the Congo Wars, expansion of DRC's mining frontier was

in effect maintained through an adaptation toward artisanal and small-scale activities which could continue even under conditions of extreme instability (Verbrugge and Geenen, 2019).

After the second war officially ended in 2003, industrial mining began to undergo something of a resurgence (Geenen and Radley, 2013). President Joseph Kabila took over after his father was assassinated and implemented a series of reforms to stimulate private investment and improve governance of the mining sector. These reforms enabled him to further consolidate power and accumulate a veritable fortune. Private investments began to increase once again after 2005 and mining became the main driver of national-level growth (Trefon, 2016). During this period, industrial mining also started to creep back into South Kivu, most notably with the arrival of Banro Corporation, which established two functional gold mines: one in Twangiza in 2012 and another in Namoya in 2015. The company carried out mineral prospection in several other sites. However, industrial mining was once again on the decline in 2016 and 2017 (Geenen and Verweijen, 2017), with large companies facing numerous difficulties in the region, not least due to resistance from artisanal miners as well as repeated attacks from armed groups (Verweijen, 2017). Banro decided to pull out of South Kivu altogether in 2019 as a result of ongoing insecurity, armed group activity and violent resistance around its mining sites. Given ongoing challenges around security and high cost margins, there are now very few full scale industrial mining operations in South Kivu.

In recent years, expansion of the DRC's mining frontier has occurred at a semi-industrial scale, driven by investments from a number of small Chinese companies. These companies typically secure mining sites with local power brokers through less than licit channels. They often begin by occupying the artisanal mining sites of local communities. They tend to be better able to access regions than fully industrial firms, such as around protected areas. Semi-industrial mining can be considered an adaptation to enable more intensive forms of mineral extraction to continue despite structural constraints. Since 2018, several semi-industrial mines have been set-up by Chinese companies in the territories of South Kivu, Ituri and Haut-Uele provinces. Between 2014-2016 the Chinese company 'Kun Ho' established 'four fully automated bucket chain dredges' to mine gold in a part of the Ulindi River in Shabunda territory, South Kivu (Geenen and Marijsse, 2020, 275). Chinese workers have often been kidnapped for ranson, their gold and money taken from them. In several cases this has led the Chinese miners to temporarily shut down their operations and secure protection from the government army. Unlike industrial mining, semi-industrial mining operations have proven highly flexible, capable of sustaining operations even under conditions of extreme insecurity. They can also work in areas where they do not have permits to dig.

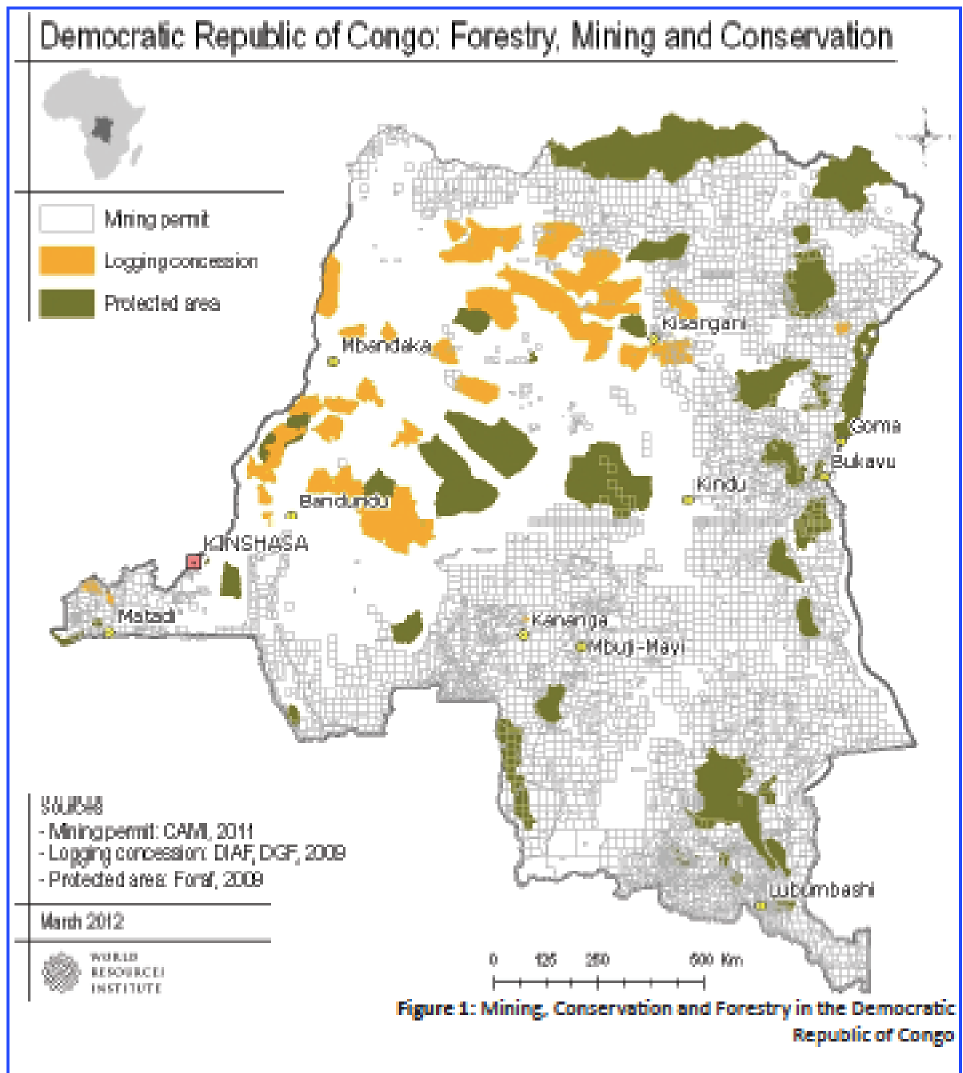


Figure 1: Mining, Conservation and Forestry in the Democratic Republic of Congo

*Figure 2. map produced by Javelle and Veit (2012, 2) showing the location of mining permits (clear squares), protected areas (green) and logging concessions (yellow) across DRC. As this map was produced over a decade ago, the extent of these permits and concessions will now have increased significantly.*

## 4. 'Zooming in' on double frontiers

The expansion of conservation and mining frontiers over the last century has led to considerable overlap between protected areas, mining sites and mining permits across DRC (see figure 2). Today the country is covered by a vast patchwork of protected areas, permits for mineral prospection and extraction, and active artisanal and industrial mining sites. All of of these spaces interact in diverse ways. This is despite the nation's laws concerning the environment, conservation and mining all containing articles which could be interpreted to forbid mining activities inside protected areas (Simpson and Fikiri Zirhumana, 2020).

Javelle and Veit (2012) found 629 mining permits coincide with 3.5 million hectares of protected areas, including Maiko National Park, Sankuru Nature Reserve, Upemba National Park, the Lufira Biosphere Reserve and two World Heritage Sites: Kahuzi-Biega National Park

and Okapi Wildlife Reserve. There are also two high-profile cases, in Virunga and Salonga National Parks, where oil extraction permits overlap with protected areas. If the security situation in the east of the country improves, it is possible industrial mining activities will begin to increase in scale and intensity both inside and outside of protected areas. For example, between 2008 and 2011, the number of mining permits allocated by the Congolese government increased by 35 percent, equivalent to fourteen million hectares (Javelle and Veit, 2012, 1). However, as discussed in the previous section, industrial companies still face major challenges when operating in regions like eastern DRC, not least due to insecurity and local resistance. They face even greater difficulties when attempting to establish operations inside protected areas due to the inevitable backlash from conservationists. However, the mining frontier is creative and can find ways around structural constraints to its expansion.

Inspired by Verbrugge and Geenen (2019), I propose the move toward artisanal and semi-industrial scales of mining is a systemic adaptation to enable the mining frontier to reach areas previously difficult to access. Tens of thousands of artisanal miners already operate – mostly illegally – inside DRC's protected areas. Artisanal mining is unique in that it allows local people to directly participate in frontier expansion. As a consequence of its important role in local livelihoods, conservation authorities sometimes even allow artisanal forms of extraction to continue inside the multiple use zones of community conservation areas – i.e. to consciously enable the emergence of a double mining and conservation frontier. At the same time, semi-industrial mining companies are also starting mining operations inside and at the edge of protected areas: for example in Garamba National Park, the Okapi Wildlife Reserve and Itombwe Nature Reserve. These (predominantly Chinese) companies establish operations through shadowy connections with local power-brokers and by seeking protection from members of the government police and military. They do not function according to international norms or the laws of the nation state, but rather through relationships and agreements forged at the local level. The expansion of semi-industrial mining into conservation areas poses a serious challenge for global environmental governance.

Double frontiers do not only occur through territorial adaptations on commodity frontiers. In eastern DRC, they are also a consequence of perpetual state weakness and long-term insecurity. The wider fragmentation of control in eastern DRC makes it almost impossible for state security forces, let alone small troops of eco-guards, to secure the boundaries of protected areas and mines. The result is a blurring of the boundaries between different territorial units. At the same time, political and military elites use instability and disorder to further their own power positions and economic interests. Government ministers in Kinshasa often allocate protected areas and mining concessions on top of one another without adherence to different national laws. Considering conservation and extractive initiatives bring in large sums of money, state officials are unlikely incentivised to separate out protected areas and mines. This results in contradictory regulations and inconsistent information regarding the boundaries of protected areas and mining permits, which increases the likelihood of confusion and contestation at the local level. In other cases, government officials maintain relationships with non-state armed groups as a way to peddle influence and gain access to natural resource rents, sometimes from inside of protected areas. These officials might claim to uphold the laws surrounding mining and conservation when communicating in public, but then work in clandestine ways that contravene state legislation in private.

I will now take a closer look at the nexus of conservation and mining commodity frontiers in South Kivu's Kahuzi-Biega National Park and Itombwe Nature Reserve. I begin both case studies by examining the different forms of territorialisation through which the conservation frontier has been organised. Then I analyse the different scales of territorialisation for mining, with a special focus on the ways in which they affect access and control of land and resources in conservation areas. I observe how context-specific dynamics influence the emergent interactions between the mining and conservation frontiers. This, I argue, has the effect of incrementally fragmenting authority and control over time and space.

### *4.1. Kahuzi-Biega National Park*

Established in 1937, the Zoological and Forest Reserve of Mount Kahuzi was the first protected area in South Kivu. President Mobutu signed a decree in 1970 which transformed the reserve into a fully-fledged national park. From this point onward, the park would be a strict conservation enclosure, which meant people could no longer legally live or gather resources inside its boundaries. The park was extended to include a vast lowland sector in 1975, bringing its total size to around 6,000 km sq. Thousands of people were displaced from the park during the 1970s, including groups of indigenous Batwa people. Over the ensuing decades, this would result in multiple conflicts between conservation authorities and communities living at the park's perimeter (Barume, 2000).

Kahuzi-Biega National Park has at moments been a global tourist hotspot. The world's first gorilla tourism project was established in the park in 1972 (Yamagiwa, 2008). In 1985, the Congolese conservation agency[20] went on to form a cooperation agreement with GIZ to train guides and manage the project. The park received substantial numbers of tourists at certain points in its history, although the business was severely disrupted by successive conflict. During the Congolese Wars in the 1990s, ICCN lost control over the Park almost entirely as rebel groups and civilians freely entered its forests to extract resources (Yamagiwa, 2008). Over half of its population of eastern lowland gorillas was wiped out in a matter of years. As a result of the pressure put on park resources during this period, IUCN designated it a World Heritage Site 'in danger' in 1997. More recently, the park's gorilla tourism initiative was impacted by the COVID 19 pandemic and international travel restrictions.

The park is a multimillion dollar conservation project with financial backing primarily from the US and German governments. Over recent years, various organisations have supported the training and funding of militarised conservation patrols, including, among others, the US Fish and Wildlife Service, KfW (a German development bank), WCS, GFA Consulting Group, and Maisha Group Ltd (Flummerfelt, 2022). WCS, which has worked with the park for over two decades, signed a PPP with ICCN and in April 2022 to co-manage the park. This, I would suggest, has further consolidated the park's connection to global networks of value.[21] Although the park is a fortress conservation area, eco-guards still control only a small area of

[20] At that time known as *Institut Zairois pour Conservation de la Nature* (IZCN).

[21] See WCS, 'New Management Agreement Signed for Kahuzi-Biega National Park in the DRC': https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/17462/New-Management-Agreement-Signed-for-Kahuzi-Biega-National-Park-in-the-DRC.aspx

the park near ICCN's HQ in Tchivanga. Multiple armed groups are involved in the extraction and trade of mineral from within park boundaries. Several Batwa communities have settled in the park's highland sector, from where they facilitate the trade of charcoal and timber.

Park authorities have attempted to bring the populations surrounding the boundary into decisions concerning park management. This move could be considered an attempt to 'fix' the conservation frontier in the face of opposition to pure fortress conservation. For example, in 2000 ICCN launched a project with support from GIZ to provide a link between the communities surrounding the park and conservation authorities. The project would offer local development and livelihood opportunities as a counterpart to the enforcement of conservation regulations (Mudinga, Ngendakumana and Ansoms, 2013). They formed CCCs in thirteen villages around the park. At least in theory, these committees were supposed to keep communities abreast of ICCN's activities, provide a way for people to communicate their grievances to the conservation authority, and identify local development needs. In 2006, with the support of United States Agency for International Development (USAID) and the MacArthur Foundation, WCS launched an additional project to support the CCC in Bugobe village.[22] This project aimed to reduce park-community conflicts and deliver development.

During the research I encountered multiple people who had at various points been part of the different CCCs surrounding Kahuzi-Biega National Park. While people in principle supported the idea of the CCCs, in practice they judged them to be underfunded and as having failed to deliver development or environmental protection. The CCC in Bugobe faced a number of challenges. The local population accused the committee of working purely as a mechanism to inform park authorities of lawbreakers. Other people saw the committee as an attempt to further reinforce ICCN's control of park resources. Tensions like these have undermined the impact of the CCCs and at this point, most committees appear to exist in name only. Rather than improving park/people relations, the CCC's now represent yet another bone of contention between the population and ICCN. Some people now even point to the failure of this initiative as a reason for the continuation of banned livelihood activities inside the park.

[22] See document by International Institute for Sustainable Development: https://www.iisd.org/system/files/publications/csc-stories-kahuzi.pdf

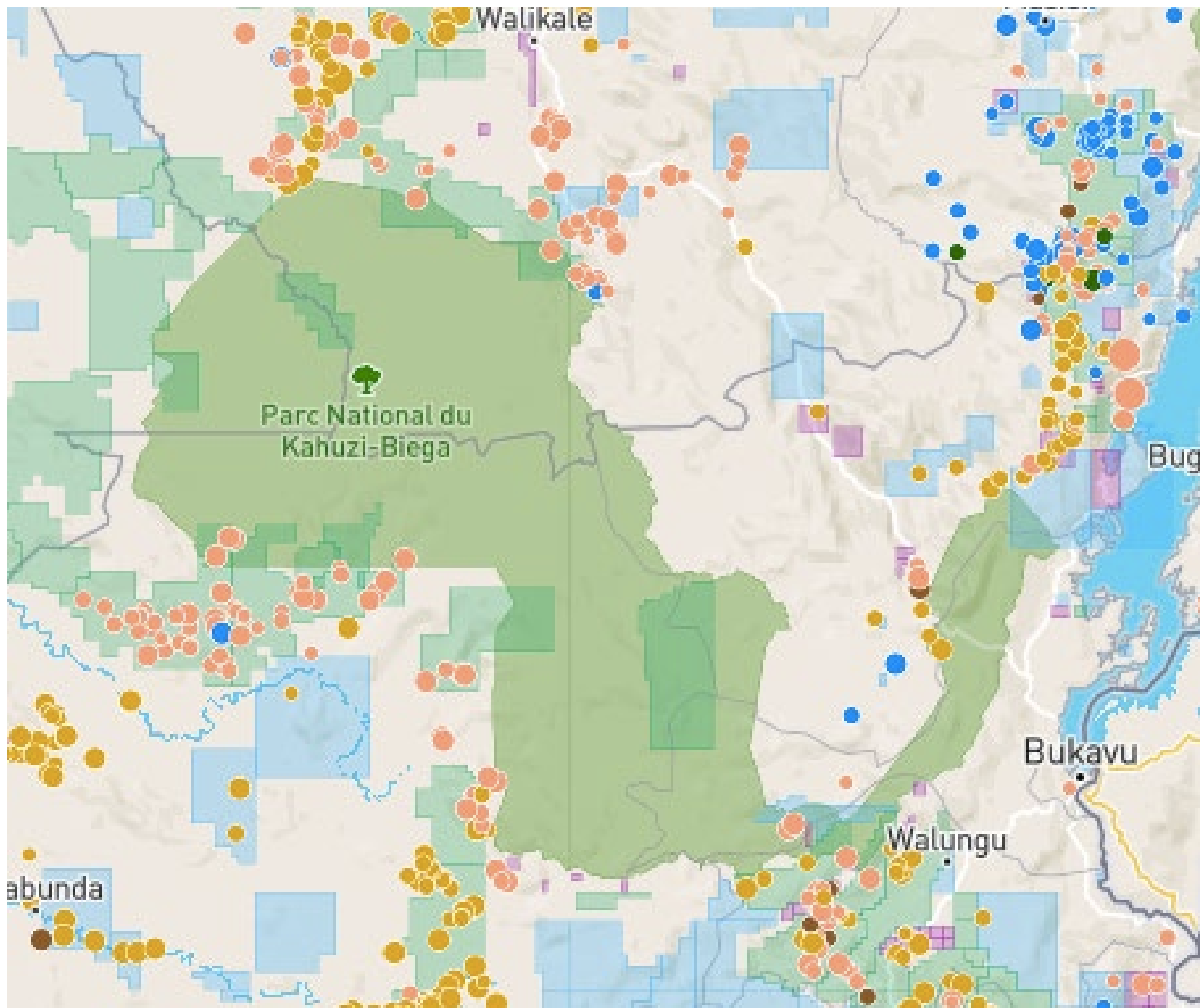


*Figure 3. IPIS (2021) map of Kahuzi-Biega National Park (in dark green) overlaid with mining permits (blue, green and purple squares) and artisanal mining sites (dots – various colours). Note this greatly under-represents the extent of artisanal mining inside the park because most of the sites have not been mapped. Map accessed at: https://www.ipisresearch.be/mapping/webmapping/drcongo/v6/#*

MGL established industrial mining operations in what is now Kahuzi-Biega National Park during the 1930s. When SOMINKI took over several of MGLs sites in 1976 (Vlassenroot and Raeymaekers, 2004), it also took over the 'Kabunga' division (Geenen, 2014) from which gold prospection had taken place inside the park's lowland sector (Redmond, 2001). Although the industrial mining frontier which directly overlaps with the park is inactive, there are still eleven industrial mining permits which overlap with its boundaries according to a map produced by the International Peace Information Service (IPIS) (see figure 3). However, at the time of writing, all but one of these permits had either expired or been revoked due to non-payment. The only active permit that overlaps with the park boundaries is permit number 68 of Twangiza Mining, which overlaps with the ecological corridor connecting the park's highland and lowland sectors. To my knowledge, neither prospection nor extraction have yet been carried out on this site, possibly because of the inevitable backlash that would occur considering the park is a World Heritage Site. However, there is an industrial cassiterite mine run by Alphamin Bisie Mining now located between Kahuzi-Biega and Maiko National Parks

near Walikalhe (see figure 4).[23] Although this mine is located entirely outside the park's boundaries, its operations are reported to have pushed artisanal miners into the park who had previously been mining cassiterite at the Bisie site. Thus, even when outside of protected area boundaries, industrial mining activities can still impinge upon the conservation frontier.

*Figure 4. images of Alphamine's Bisie mining site next to Kahuzi-Biega National Park's lowland sector in Walikalhe territory, North Kivu Province.*

Artisanal mining takes place on a large-scale within the park boundaries (see figure 5). This overlap is the product of broader conflict dynamics and fluctuations of demand on international markets. The coltan boom of the 2000s, coinciding with the Second Congo War, led tens of thousands of people to 'rush in' to coltan sites inside the park itself (Redmond, 2001). School-teachers, farmers and soldiers all started digging. At the peak of the boom, there were estimated to have been about 12,000 miners operating illegally inside park boundaries (D'Souza, 2003, 11). Much of the mineral trade from the park was controlled by rebel groups and foreign armies who used the profits for personal enrichment and as a way to fund their operations. The International Crisis Group reported that these groups violently displaced populations in order to gain control of mining sites in Kalonge and Bunyakire. With the influx of arms into the region, it became impossible for ICCN to effectively police park boundaries and prevent illegal resource extraction. The frenetic scramble for the park's coltan is now over. However, cassiterite mines have appeared across the lowland sector, with a particular concentration around the town of Itebero. Numerous gold-mining sites have also emerged across the park's highland sector, especially in the Kalehe region around the village of Katasomwa. These sites are still predominantly controlled by powerful non-state armed groups, which makes it very difficult for ICCN eco-guards – even when reinforced by the government military – to remove them. As a result, control of territory inside the park is fragmented and continually shifts between different 'sovereign-like' actors over time.

The expansion of the artisanal mining frontier into Kahuzi-Biega National Park has had a variety of environmental and social impacts on the park and populations living around it. The Ministry of Mines found that artisanal miners used mercury to extract gold inside the park. D'Souza (2003) found that coltan miners were using vast quantities of water to wash the stones causing rivers to become full of silt and polluted. Coltan mining can also lead to soil erosion and landslides. In a report for WCS, Spira *et al.*, (2019) established the linkages

[23] These images were accessed online via: https://www.mediacongo.net/article-actualite-93180_a_walikale_les_activites_minieres_de_la_societe_americaine_alphamin_bisie_mining_sa_hors_de_tout_controle.html & https://deskeco.com/rdc-le-projet-etain-de-bisie-dalphamin-entre-en-production-au-3eme-trimestre-2019

between artisanal mining and bush meat hunting in the park. The concentration of armed groups engaged in mining activities has at once created opportunities for people living at the edge of the forest to gain access to the benefits of the mineral trade, but also widespread insecurity. Looting is now commonplace at the park boundary, for example. Such dynamics can provoke further dependence on non-state armed groups as people seek protection.

*Figure 5. the image on the right shows a gold mining site at the edge of Kahuzi-Biega National Park near the village of Katasomwa. The image on the left shows the a validated wolframite mine close the park in the village of Bitale.*

In eastern DRC, various initiatives have attempted to stop the park's minerals from being sold on international markets and rebels gaining access to mining revenues. The Durban Process for Ethical Mining specifically tried to deal with the problem of artisanal coltan mining in Kahuzi-Biega National Park. This multi-stakeholder initiative, designed by the NGO Gorilla Organisation, brought together governments, Congolese civil society and the electronics industry between 2003 and 2008. It aimed to mitigate the impact of artisanal mining on the park by raising awareness, providing alternative livelihoods, reinforcing ICCN's capacity, and encouraging safe and ethical mining outside the park (Nest, 2011). This scheme successfully brought the issue of illegal coltan mining in the park onto the world stage during the 2000s. An article was published in the Economist newspaper titled 'Digging a grave for King Kong?'[24], while others articles were printed in The Independent, The Guardian, and The Observer. Television programmes on the Durban Process were broadcast on Channel 4 in the UK and CBC Radio in Canada.[25] Gorilla Organisation even hosted online chats with the actor Leonardo DiCaprio and author Arthur C. Clarke to raise awareness.

However, these efforts have mostly failed to reduce artisanal mining due to the presence of a shadow state in eastern DRC. Illicit networks facilitate the trade of minerals from the park all the way to international markets. For example, during the coltan boom women and children would take minerals out of the forest in old paraffin containers and oil barrels or in nylon sacks sewn together (D'Souza, 2003). As the volume of minerals increased, trading posts sprung up. Road and air-traffic increased dramatically from Bukavu to the territories of Walikale, Shabunda and Kalehe (Redmond, 2001). Minerals were flown from small airports in the territories surrounding the Park to Kavumu, which has an airstrip accessible from Bukavu.

[24] The Economist, Digging a grave for King Kong?: https://www.economist.com/science-and-technology/2003/07/31/digging-a-grave-for-king-kong
[25] The Durban Process: https://bluegorillagiving.ca/cool_timeline/the-durban-process/

There were more than thirteen flights a day from Kavumu to four airstrips in Salamabila, Kampene, Namoyo, Lulingu and Walikale (Redmond, 2001). After the coltan had made it from the park to trading houses in Goma and Bukavu, it was virtually impossible to differentiate from the coltan extracted from sites outside the park. From these urban centres, the minerals could easily be smuggled into neighbouring Rwanda and Burundi and then sold onto global markets. As I will discuss in more detail in chapter five, the armed groups mining gold inside the park's highland sector today also maintain links to powerful politicians, businessmen and members of the government military FARDC. These networks enable them to sell minerals illegally extracted from inside the park and access weapons. Thus, despite legal prohibitions, the artisanal mining frontier has been able to encroach into a strict conservation area. This is a result of the government's lack of territorial control, difficulties enforcing conservation regulations, and the pervasive corruptibility of state officials.

### *4.2. Itombwe Nature Reserve*

Located in eastern DRC's South Kivu Province, the Itombwe Massif is the most biologically rich region of the Albertine Rift (Kujirakwinja *et al.*, 2019). Despite attracting the attention of naturalists and biologists since the Colonial era, it was not until the 1990s that discussions commenced over whether a protected area should be established in the region. The government expressed interest in the conservation of Itombwe Massif with a decree published in 1998. However, plans were put on pause with the onset of the Congo's two consecutive wars (1996-1997 and 1998-2003).

After the end of the Second Congolese War in 2003, a ministerial decree was signed in 2006 to establish Itombwe Nature Reserve. The decree included a rough map of where the reserve would be located, shown in figure 6. However, the reserve's boundaries were unclear and communities were not consulted in advance, leading to widespread confusion. Some people still remembered the displacements from Kahuzi-Biega during the 1970s and were afraid the same thing would happen around Itombwe Nature Reserve. AfriCapacity, a Congolese NGO, even took action to get the entire reserve legally degazetted (Kujirakwinja *et al.*, 2019). Some communities would not allow representatives of the reserve onto their lands.[26] The fact that multiple armed groups continued to operate from bases inside the reserve posed a further challenge to a top-down, exclusionary approach as a way to expand the conservation estate in the region. As a result of these pressures, the main organisations involved in the creation of the reserve – WWF, WCS and ICCN – decided to adopt a radically different approach to territorialise this emerging conservation commodity frontier.

It was agreed that the reserve would be territorialised using a more participatory, consensual approach. Communities would have a choice in whether or not they wanted to allocate forests to the protected area. In turn, the reserve would be disaggregated into three zones, each of which involved different territorial arrangements: a multiple use zone, where communities could still live and extract resources, including through artisanal mining; a core ecological zone, strictly for conservation and scientific research; and a buffer zone to provide a link between the two former zones. In this regard, the reserve would encompass a multi-

[26] Interview with director of local NGO, Bukavu, 23 February 2019.

layered territorialisation of the conservation frontier, with the reserve's outer layer resembling a community conservation area and the inner layer more of an inflexible fortress-style protected area. To incentivise local acceptance of conservation rule, ICCN and its NGO partners also offered small economic incentives and development projects. A new decree was published at the provincial level in 2016 based on this more participatory process, which included a map with new external limits and internal zones of the reserve (see figure 7).

In this case, the move toward a more flexible model of conservation can be considered a territorial adaptation to enable further expansion of the conservation commodity frontier even in the face of considerable local and international opposition. This adaptation also allowed an artisanal mining-conservation double frontier to exist, even if this was technically in contravention of the DRC's laws concerning mining and the environment.

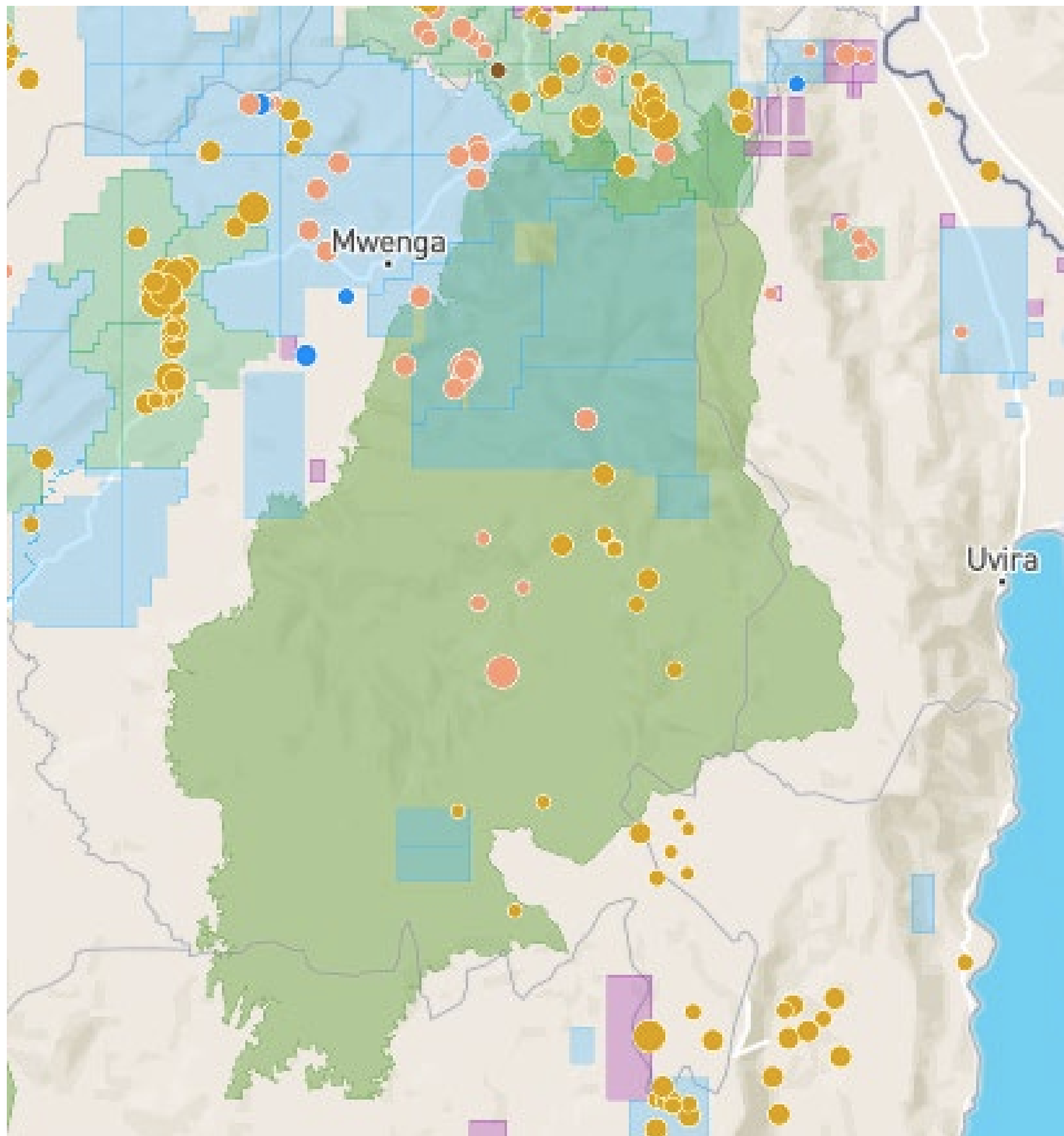


*Figure 6. IPIS (2021) map of Itombwe Nature Reserve (in dark green) overlaid with mining permits (blue, green and purple squares) and artisanal mining sites (dots – various colours). Note this greatly under-represents the extent of artisanal mining inside the reserve because most of the sites have not been mapped. Map accessed at: https://www.ipisresearch.be/mapping/webmapping/drcongo/v6/#*

Funding has been injected into this conservation frontier by several different international NGOs and development agencies. WWF worked with finance from the Swedish International Development Agency (SIDA), USAID and WWF Netherlands; WCS worked with finance from USAID, the Critical Ecosystem Partnership Fund and IUCN; AfriCapacity worked with funding from Rainforest Foundation Norway (RFN), Rainforest Foundation UK and *Fondation Prince Albert II de Monaco*; and both the Gorilla Organisation and Berggorrila also provided limited financial support to ICCN over more recent years for administrative activities, training and patrols. Despite the wide array of organisations involved in financing the conservation project over the years, the reserve is currently having major financial difficulties, with all of the main funders pulling out. For the moment, conservation activities are maintained with limited contributions from Berggorrila and AfriCapacity. The reserve does not, therefore, have access to a consistent stream of capital, and remains dependant on the ability of international NGOs and their funders to maintain processes of territorialisation that take place on it. Unlike Kahuzi-Biega National Park, Itombwe Nature Reserve receives no revenues through tourism given the poor transport linkages and the lack of state control over the area.

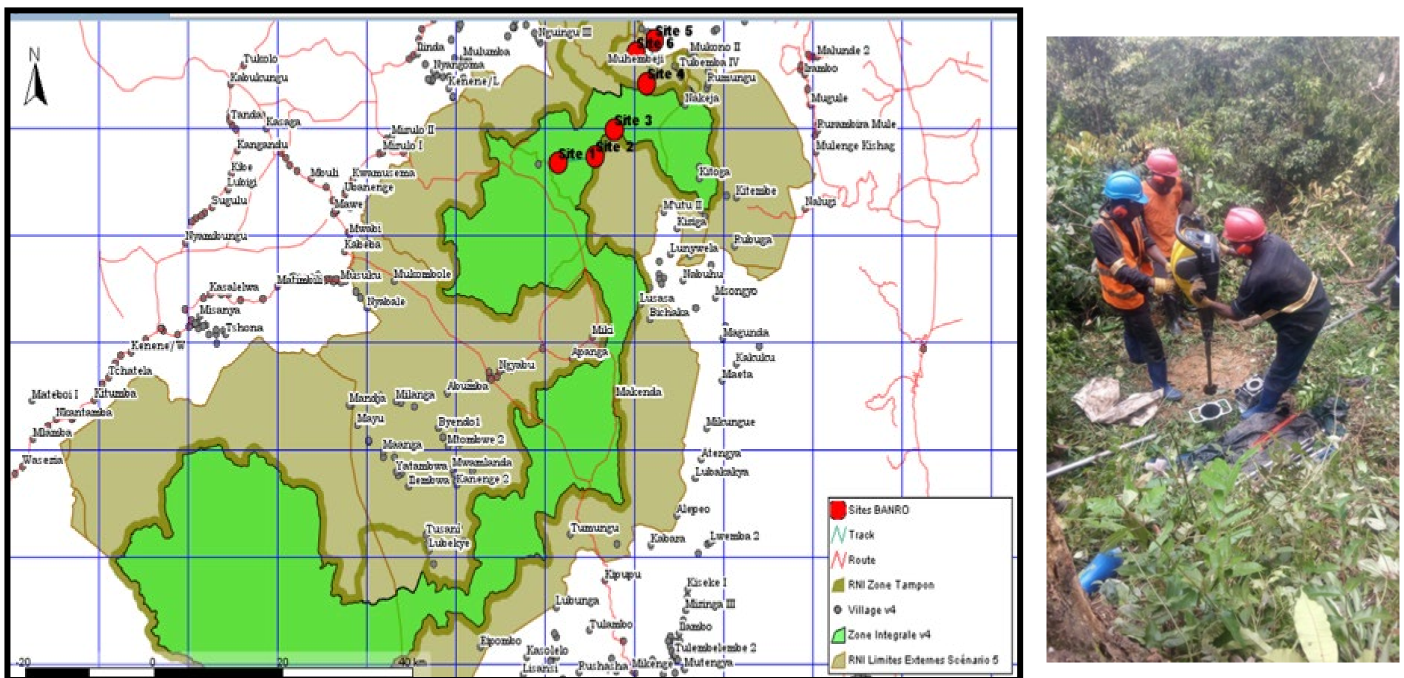


*Figure 7. map from Berggorilla's website showing sites where Banro conducted mineral prospection inside Itombwe Nature Reserve (left), and image of Banro's operatives carrying out prospection activities (right). Map accessed at: https://www.berggorilla.org/en/gorillas/threats-protection/threats/articles-threats/banros-activities-in-the-itombwe-nature-reserve/*

This conservation frontier coincides with a mining frontier which has undergone processes of territorialisation at industrial, semi-industrial and artisanal levels. The mining frontier was in operation long before the reserve was established, expanding and contracting over different periods. It interacts with the conservation frontier in several ways. Figure 6 shows a map of the reserve produced by IPIS with the twelve mining permits that overlap with its 2006 boundaries. All of these permits are currently active: three are industrial exploitation permits, nine are industrial exploration permits and two are artisanal mining zones (ZEAs). The ten

industrial mining permits that overlap with the reserve are owned by three different companies. The Canadian mining company Banro fully owns both Banro Congo Mining Sarl and Twangiza Mining as subsidiaries. However, it sold the Twangiza Mining permits to the Chinese state enterprise Baiyin International Investments in 2019. Although they only overlap with a small portion of the reserve to the north, the permits listed under Twangiza Mining are exploitation permits (41, 42, and 43) and therefore have the most potential to damage its fragile ecosystem. Banro's four exploration permits (1576, 3872, 3873, and 3874) cover a much larger portion of the reserve, including the core conservation zone. There are three other exploration permits entirely within the boundaries of the reserve, one is owned by *Maison de L'Ordinattor* and two are owned by Bravura Congo. Neither company is currently carrying out exploration activities in these areas.

These mining permits existed before the creation of the reserve. This begs the question why a nature reserve was ever allocated on top of them? Should not the presence of industrial mining concessions have frustrated the establishment of a protected area in region? Well, not necessarily. Concessions are often granted in the capital Kinshasa without consideration of the different laws governing mining, conservation and the environment (Javelle and Veit, 2012). Given the huge capital investment mining and conservation can bring into a country, it is probably not in the interests of the government officials responsible for allocating mining permits and protected area boundaries to deal with this conundrum. Thus, when faced with pressure from international NGOs (WWF and WCS), the DRC's Ministry of Environment at the time published a decree to create a reserve without any mention of the industrial mining permits that were already located inside reserve. In the fashion of Rebecca Hardin's (2011) concessionary politics, the negotiations surrounding these legally incompatible land concessions (for both mining and conservation) effectively took place at the local level far away from centres of decision-making power in Kinshasa. The Canadian mining company Banro's extractive activities in the vicinity of the reserve represent a case in point.

From 2012 onward, Banro established industrial mining operations surrounding the territory on which the reserve is now located. It had mineral exploration permits which overlap with all three of the reserve's zones even before that time. Looking to expand its business in eastern Congo, the company conducted mineral prospection in several sites inside part of reserve which overlaps with Luindi chiefdom. Banro set up six installations from 2017-2018. Three of these installations overlap with the core conservation zone, two with the buffer zone and one with the multiple-use zone (see figure 7). These activities provoked considerable opposition from environmental civil society in the provincial capital of Bukavu and from several international NGOs including WWF. Together, these organisations alerted the Canadian, US and French embassies in Kinshasa about their struggle. They also started an online petition to denounce Banro's activities in Itombwe Nature Reserve.[27] On 12 February 2019, the Provincial Director for ICCN in South Kivu filed a letter addressed to the commander of the 33rd Military Region. It accused Banro of conducting illegal activities inside the reserve and collaborating with members of the FDRL Bahutu rebel group (notorious for its connections to the previous Rwandan government responsible for 1994 genocide) to secure

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[27] The petition against Banro can be found at this link: https://www.rainforest-rescue.org/petitions/1150/keep-gold-miners-out-of-gorilla-country

its prospection sites.[28] In reality, these allegations were probably more a strategy to rally international support to stop Banro exploiting in the reserve than based on verifiable facts. On closer inspection, Banro appears to have paid local defence (or 'Mai Mai') forces as a way to secure its operatives in Kigogo, which ICCN then strategically accused of being FDLR as a way to shut down the industrial mining frontier that overlapped with the reserve.

As I will discuss in more detail in chapter six, Banro was able to temporarily win the support of some of the local population in Kigogo by promising to provide opportunities for development and employment in the future. According to one villager, 'Our community is for development, so its reaction should only be positive. All the people of Kigogo in general and Kihazi, Mashako and Muhembeje in particular were happy to hear that Banro wants to come here.'[29] But despite the initial hype, Banro has since discontinued its attempts to territorialise land for mining inside the reserve as well as in other sites in eastern DRC. As a reason for this, its CEO cited the government's failure to provide a stable environment for its business operations, attacks against its employees by armed groups, and the occupation of its mining concessions by artisanal miners.[30] Consequently, the industrial mining frontier that directly coincides with the reserve has – at least temporarily – shut down. However, the permits that overlap with the reserve still exist, meaning industrial mining could come back at some point in the future, especially if more peaceful conditions emerge in South Kivu.

*Figure 8. images of Chinese-led semi-industrial gold mining operations at the edge of Itombwe Nature Reserve in the village of Kitumba, Wamuzimu chiefdom. The site on the left is an open-pit mine excavated by mechanical diggers. On the right is a mechanised dredging operation in the Ulindi River.*

While industrial mining is once again in a state of contraction on the Itombwe Massif, the large-scale mining frontier that coincides with the reserve continued to expand through territorialisation at the semi-industrial level. Two wildcat Chinese companies established semi-industrial operations at the south eastern edge of the reserve in 2019. Regal SK started a semi-industrial gold mining operation in Kiziba (Wakabango 1 sector) and Congo Blueant

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[28] This was widely reported by the local media in South Kivu. See for example: https://www.radiomaendeleo.info/2019/03/19/economie/sud-kivu-banro-accusee-dutiliser-les-fdlr-dans-la-rni-la-chefferie-de-lwindi-sinterpose/

[29] Interview with villager, Muhuzi locality, Kigogo groupement, Luindi chiefdom, 25/06/2021.

[30] See: https://www.agenceecofin.com/or/1002-73666-rdc-banro-cherche-un-acheteur-pour-la-mine-d-or-namoya

Minerals established a gold mine in Kitumba (Wamuzimu chiefdom). Exactly who owns the companies is unclear, as well as precisely how they came to begin mining operations in South Kivu. Neither is their relation to the Chinese state, which denies any association with the companies, openly known. The Chinese companies have established mining operations in the Elila River using boat dredges as well as open-pit mines on the river's banks excavated by mechanical diggers (see figure 8). They use various chemicals in the gold production process, including mercury, which is polluting local water sources, rivers and fish farms. The potential for environmental pollution has been a cause for concern among Congolese conservation NGOs and South Kivu's environmental civil society. This is compounded by the fact these companies did not carry out legally required environmental impact assessments before beginning the extraction of gold.

Unlike Banro, the Chinese companies operate without correct mining permits, almost entirely through shady deals with local- and nation-level power-brokers. It has been reported that they obtained exploration permits but then proceeded to begin full extraction as soon as they located sufficient gold deposits. The Mwami (customary chief) of Wamuzimu chiefdom signed a partnership protocol with the Chinese companies mining in the area. In the Kitumba mining site, Congo Blueant appears to have initially deceived the local population so as not to arouse suspicion of its true motives. The company reportedly arrived in a village close to the Kitumba mine in February 2019. It claimed to be there to rehabilitate the road. They asked members of the local population where their artisanal gold mine was located so that they could use the excess stones. However, after having been shown the mine, the company established its own semi-industrial gold mining operation. It is rumoured the companies paid off local officials and members of the provisional and national parliaments in order to set up the mines. They also paid-off the local mining cooperative in Kitumba, COMIBI, to gain access to its artisanal sites. Several villagers, members of the Congolese police force and the government army were temporarily employed by the company to provide security. A recent report suggests military generals in FARDC's provincial headquarters in Bukavu also received bribes.[31] The mining activities themselves are performed almost exclusively by Chinese workers, with very limited employment opportunities for the local population. The fact that the Chinese companies operate on the margin of legality likely enabled them to establish functional mines at the edge of a protected area, causing considerable environmental damage, without properly compensating the local people whose mines they appropriated. This would unlikely have been possible for an industrial mining company like Banro, or in the context of a more robust state system capable of enforcing its own laws and regulations.

The establishment of semi-industrial mining operations has effectively 'squeezed' the community between the Chinese mines and the nature reserve. The Kitumba mine was at one stage just a few hundred metres from where ICCN had established a patrol post. A villager from the area told me,

> We are being held hostage because of our wealth! The future in this village is uncertain. On the one hand, the Chinese have evicted us from our fields and mining

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[31] See *Institut français des relations internationales*, 'Une scandale sino-Congolais': https://www.ifri.org/fr/publications/notes-de-lifri/un-scandale-sino-congolais-lexploitation-illegale-minerais-forets

> sites. On the other hand, the reserve is going to forbid us from entering the forest. In the face of this suffering, our authorities are keeping quiet![32]

Anger is widespread among the population. According to a peasant farmer, 'The local population began to do strikes and demonstrations when they saw Chinese were operating where they were. They called Kimbilikiti [a forest spirit] to prevent the Chinese from accessing the site.'[33] Local civil society also organised a protest in the regional centre of Kitutu to demand the Chinese companies leave the area and give the gold mining sites back to the local population. The situation reached a climax on the morning of 21 November 2019 when a local armed group raided the Chinese mining camp and kidnapped three of the Chinese workers, while injuring a fourth.[34] Two government soldiers who had been paid to guard the site were also killed during the attack. In the days afterward, the Chinese left the area and ICCN abandoned its patrol post in the village of Kitumba out of fear its eco-guards could suffer a similar fate.[35] This incident demonstrates how, in some instances, resistance to expansion of the mining frontier can also pose limitations on territorialisation for conservation. On 02 December 2020, another Chinese worker was killed between Kitumba and Kitutu while travelling to Bukavu. The assailants escaped with the gold he was carrying.[36]

While ICCN decided to close its patrol post in Kitumba in the months after the attack, the Chinese eventually returned under the protection of the Congolese military, who moved its headquarters in Wamuzimu chiefdom from Kitutu to Kitumba. According to a peasant farmer from the area, 'With the attacks on Chinese mining facilities, the army is now in the village to protect the Chinese and not the population.'[37] Exactly what the relationship is between these companies and the military remains unclear, other than the fact the former is paying the latter for protection. There have been numerous complaints against the government soldiers positioned in Kiziba and Kitumba. The local populations accuse them of imposing forced labour ('Salongo') once a week, collecting illegal taxes at roadblocks either side of the village, and cutting trees to make charcoal inside the reserve.[38] Complaints reached fever pitch in August 2021, sparking protests across Mwenga territory. On 20 August 2021, the governor of South Kivu suspended the operations of all Chinese companies in the territory of Mwenga. Yet in the following weeks local media reported the continuation of semi-industrial mining operations despite the ban.[39] By forging a shadowy relationship with the government military and local elites, the Chinese mining operations have been able to continue without required permits, in the face of intense local resistance, at the very edge of a protected area.

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[32] Interview with farmer, Bingili Bazala groupement, Wamuzimu chiefdom, 01 November 2019.
[33] Interview with farmer, Bingili Bazala groupement, Wamuzimu chiefdom, 02 November 2019.
[34] Focus group conducted with villagers, Bingili Bazala groupement, Wamuzimu chiefdom, May 2021.
[35] Interviews conducted with villagers, Bingili Bazala groupement, Wamuzimu chiefdom, May 2021.
[36] Interviews conducted with villagers, Bingili Bazala groupement, Wamuzimu chiefdom, May 2021.
[37] Interview conducted with peasant farmer, Bingili Bazala groupement, Wamuzimu chiefdom, 21 May 2021.
[38] Interviews conducted with villagers, Bingili Bazala groupement, Wamuzimu chiefdom, May 2021.
[39] As reported in local media: https://actualite.cd/2021/08/21/rdc-voici-les-9-entreprises-en-majorite-chinoises-dont-les-activites-dexploitation

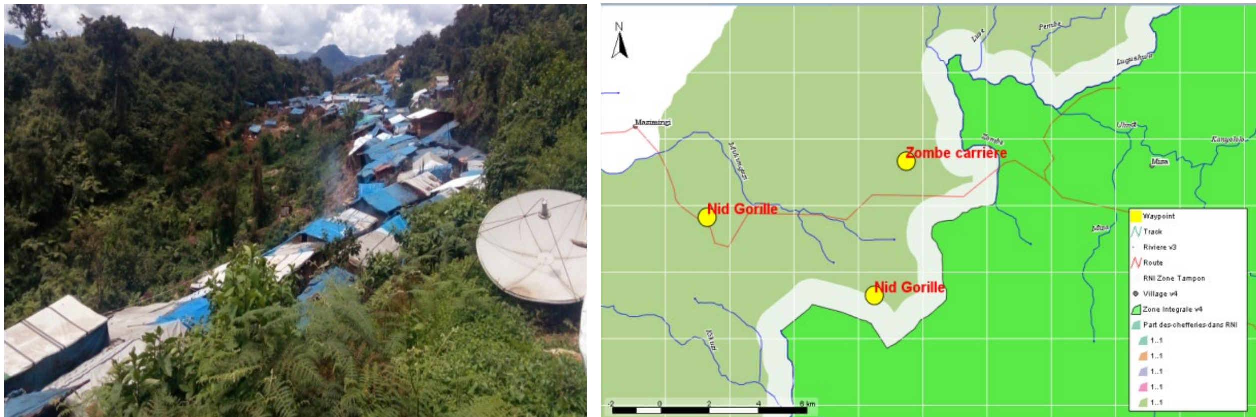


*Figure 9. image (left) and map (right) of the large cassiterite mine 'Zombe' at the edge of Itombwe Nature Reserve's buffer and core zones in the chiefdom of Basile. Map provided by a key informant during field research in Mwenga.*

Semi-industrial and industrial forms of mining are highly contested on the Itombwe Massif. Artisanal mining, on the other hand, continues to play a significant role in the livelihoods of many communities. The most frequently mined minerals are gold and cassiterite. Up to this day, many of the sites previously operated by MGL are used by artisanal miners. For example, the large cassiterite mine of Zombe can draw up to a thousand miners at a busy time of the year, and is commonly referred to as the economic 'lung' of Basile chiefdom.[40] There is some deforestation surrounding Zombe and other mines, while hunters regularly sell bush meat to miners inside the reserve. Past territorialisations at the industrial scale have imprinted upon later territorialisations at the artisanal scale. For example, numerous miners and traders still use the road MGL constructed from Mwenga Centre to Zombe to transport minerals and equipment. The artisanal miners often buy food and other supplies in villages along the route. As such, the economic knock-on effects of mining go way beyond the miners. One inhabitant of the village of Kalundu told me, 'Without Zombe, there is no life in our village!'[41] Considering its importance for local economies, the reserve managers decided to allow artisanal mining to continue in the reserve's multiple use zone. Artisanal miners can still walk unhindered past ICCN's patrol post in Kalundu village on the way to the Zombe site. Several artisanal sites are now in the process of being validated as official ZEAs. In the case of Itombwe Nature Reserve, the conservation frontier therefore adapted, but in the interests of small-scale miners.

Basile chiefdom overlaps with the west of the reserve. A memorandum of understanding was signed between Basile's customary chief, the reserve managers and artisanal miners grouped under the COOMIDEM-SCOPS mining cooperative. The declaration states that mining must be allowed to continue as long as it does not cross over into the core or buffer zones. Under this agreement, some overlap would therefore be permitted between both mining and conservation frontiers. However, the large Zombe mine is located at the edge of the buffer zone and continues to expand as new deposits of cassiterite are unearthed. To prevent miners from pushing further toward the buffer zone, there is a plan to demarcate the site limits, but no action has been taken so far due to financial and logistical difficulties.[42] The informal, itinerant nature of artisanal mining means that additional mining sites could easily emerge

[40] Focus group, Kalundu village, Basile chiefdom, 27/05/2021.
[41] Interview, Kalundu village, Basile chiefdom, 15/11/2019.
[42] Interview with representative of ICCN, Itombwe Nature Reserve, 10/01/2020.

across all three of the reserve's zones in the future. The advance of artisanal mining thus poses a unique threat to the integrity of conservation frontiers.

Another issue concerns the presence of non-state armed groups. Many of these groups established control of remote mining sites inside the reserve during Congo's wars. Although armed group involvement in artisanal mining is not as significant as it once was, there are still some sites positioned in areas under their direct control of armed groups (for example, the sites of Miki and Kitopo in Itombwe Sector) or which have indirect linkages to armed groups through informal taxes (for example the Zombe site in Basile Chiefdom). While these groups do not typically carry out mining activities themselves, they do impose informal taxes on mines to fund their 'war effort'. These armed groups effectively fragment territorial authority inside the reserve and make it difficult for the reserve's small group of thirty or so eco-guards to regulate or restrict access to artisanal mining sites. In addition to this, sites under the influence of armed groups cannot be validated through traceability initiatives such as the International Tin Supply Chain Initiative's (ITSCI) due diligence program.

ICCN allowed artisanal mining to continue in the multiple use zone. However, no mines have yet been officially validated inside the reserve. Legal or not, the mineral trade continues unabated. Minerals from the 'red' or unvalidated sites, including from the large Zombe mine, can easily be inserted into 'conflict free' supply chains by taking them to sites that have already been validated.[43] The ostensibly 'certified' minerals are then transported from the mining sites to the centre of Basile Chiefdom and on to Bukavu. The minerals are then certified as conflict free and sold on international markets. Uncertified artisanal minerals from inside the reserve are, in other words, able to circumvent traceability initiatives through the presence of shadowy trading networks which blur the lines between certified and uncertified, legal and illegal. These clandestine networks contribute to the maintenance of double frontiers which might not exist in stronger, more effectively regulated state systems.

## 5. Discussion

This chapter has sought to unpack the factors which lead to the emergence of double mining and conservation commodity frontiers in eastern DRC. The story I have told is based on the assumption that both mining and conservation link up to global value chains and sources of finance that originate far from where those activities are implemented. Specifically, I have demonstrated how these different flows of capital produce a range of territorialising processes, which come into contact with national and local histories, processes and structures. Using two different protected areas in eastern DRC as illustrative examples, I have identified two categories of territorialisation on conservation frontiers (strict and flexible conservation) and three scales of overlapping mining activities (artisanal, semi-industrial and industrial mining). My takeaways are threefold.

My first argument is that double frontiers are likely to emerge in resource-rich regions characterised by regulatory ambiguity, where the boundaries between legal and illegal have become blurred. The DRC government's territorial control is fragmented by the presence of

[43] Interview with representatives of Ministry of Mines, Mwenga Centre, Basile chiefdom, 20/11/2020.

non-state armed groups. Many of these groups seek refuge and extract natural resources inside protected areas. It is therefore difficult for the central state to enforce the boundaries of different conservation and mining concessions. The eco-guards responsible for enforcing conservation rule are frequently ill-equipped, poorly paid, and too few in number to prevent non-state armed groups from securing mining sites. Members of the government often use what state power does exist as a way to advance their private interests, often by facilitating illicit forms of resource exploitation, including inside protected areas. At the same time, state officials working in Kinshasa allocate mining concessions and protected areas on top of one another without adherence to the different laws surrounding mining, conservation and the environment (Javelle and Veit, 2012). These officials can capture a portion of the rents from mining (and conservation) activities, which likely limits their incentive to deal with this conundrum. Some state officials even maintain relationships with non-state armed groups as a way to peddle influence and gain access to the benefits of illicit resource extraction. In eastern DRC, insecurity and state weakness have become as much a political economic opportunity as a constraint on the power positions of elites (Chabal and Daloz, 1999). Ultimately, negotiations over the practical delimitation and enforcement of different mining or conservation concessions play out at local level (see Hardin, 2011), leading to shifting regimes of collaboration and contestation. The governance reality which emerges is about as far as could be from the rational-bureaucratic logics of a Weberian ideal-type state.

My second argument is that systemic adaptations take place at the level of the commodity frontiers which enable mining and conservation territories to coincide. In eastern DRC, the industrial mining frontier is severely constrained by insecurity, local resistance, a lack of investment, and criticism from conservation NGOs and civil society groups. That industrial mining companies are not necessarily aggressive, but sometimes follow legal procedure and respond to localised political conditions, also restricts the advance of the mining commodity frontier, including in the vicinity of protected areas. But this has not prevented the existence double frontiers. Capitalism modifies the tools and technologies through which it expands based on its encounters with environmental and social limits (Moore, 2000; Büscher and Davidov, 2013). In eastern DRC, the transition away from industrial toward semi-industrial and artisanal forms of mining is an example of one such modification. Semi-industrial mining is effectively a technological adaptation to expand more intensive forms of extraction into regions where industrial mining would be difficult to implement. By winning the support of local power-brokers at the edge of Itombwe Nature Reserve, for example, Chinese companies were able to establish semi-industrial mining sites even against the will of local populations and official state laws. These companies are not exposed to the kind of democratic scrutiny Western companies (like Banro) might be exposed to in their countries of origin. They are also willing to expose their employees to a much greater degree of risk (with several Chinese workers killed over the last two years) than European or North American companies might find acceptable. Indeed, it was just as Banro started to pull out of South Kivu that Chinese companies started to proliferate in the region.

Artisanal mining is less intensive, yet highly flexible. It can function in even the most isolated and insecure zones. The proliferation of artisanal mining in DRC can be viewed as another adaptation which has enabled mining and conservation frontiers to coexist, even when legally incompatible. As artisanal mining is usually informal and itinerant by nature (Peluso, 2018), existing mines can expand or new deposits can be unearthed inside protected areas. Unlike

industrial operations, artisanal miners typically set up mines without the support of central state authorities. Artisanal mining is further enabled by the presence of shadow state operators and non-state armed groups who profit from and enable informal (and illegal) mining activities (see also Duffy, 2005; Peluso, 2018). Artisanal mining is unique in that it is the only scale of mining that conservation authorities occasionally allow to continue within protected areas. This is because of the important contributions artisanal mining sometimes makes to local livelihoods and, probably, because it is not typically so environmentally destructive as more intensive forms of extraction. In the case of Itombwe Nature Reserve, artisanal miners managed to secure extra-legal agreements with reserve managers, which allowed them to continue exploiting minerals within certain parts of the reserve. More flexible approaches to conservation can themselves be viewed as territorial adaptations for the conservation commodity frontier in light of local and international opposition to strict or fortress-based protected areas. Although Itombwe Nature Reserve did not adopt a more flexible approach with the specific intention of authorising a double conservation/artisanal mining frontier, this was nevertheless an outcome of the large multiple-use zone.

My third argument concerns the effect double frontiers have on the wider constitution of power and authority. Some previous accounts suggest the overlapping zones of exclusion produced at the intersection of multiple frontiers leads to the consolidation of state control (Eilenberg, 2014; Käkönen and Thuon, 2019). Other analyses point to the emergence of enclaves or states within states managed by transnational and private actors (Ferguson, 2005; Marijnen, 2018). My findings suggest a different dynamic is at play. The lack of centralised state control is largely responsible for the emergence of such extensive overlapping frontiers in eastern DRC. However, rather than bolstering what little control there is, the capital injected into double frontiers contributes to a wider pluralisation and fragmentation of political authority. Under these conditions, different actors come to collaborate and contest control over land and resources with increasing force. As a result, more and more value is derived from the individual parcels of land located at frontiers over shorter and shorter periods of time (Büscher and Davidov, 2013). This arguably does contribute to what Nealon (2008) famously described as an 'intensification of power', just not in a way that leads any single actor to become dominant. Instead, what we see in eastern DRC is an augmentation of existing patterns of alliance and agitation. Of course, very different dynamics would likely emerge in settings where the government has greater territorial control, but then perhaps such settings would be less conducive to the emergence of double frontiers in the first place.

## 6. Conclusion.

Previous literature has tended to separate mining and conservation frontiers and the various forms of territorialisation that surround them. Yet, mining and conservation commodity frontiers are not necessarily mutually exclusive, but often converge within the same landscapes. I have identified two reasons for this. First, flexible approaches to conservation and artisanal and semi-industrial scales of mining can be viewed as systemic adaptations enabling commodity frontiers to co-exist where strict conservation and industrial mining would otherwise likely exclude one another. Second, the nation state fails to enforce its own laws and willingly allocates protected areas and mines on top of one another. Shadow state operators and non-state armed groups take advantage of – and act to perpetuate – this

situation for their private gain. These very localised conditions generate highly dynamic, overlapping territorializations in eastern DRC. They form not so much rigid zones of exclusion, but an evolving patchwork of inclusions and exclusions which twists and turns with the passage of time. In other words, intersecting territorialisations do not enhance centralised state control over violent frontier regions, but further pluralise the existing political relationships that surround the control of territory, people and resources.

# CHAPTER 4: BATWA RETURN TO THEIR EDEN? INTRICACIES OF VIOLENCE AND RESISTANCE IN KAHUZI-BIEGA NATIONAL PARK

This chapter is an amalgam of two published articles:

Simpson, F.O., Geenen, S., 2021. Batwa return to their Eden? Intricacies of violence and resistance in eastern DRCongo's Kahuzi-Biega National Park. *The Journal of Peasant Studies* 0, 1–19.

Simpson, F.O., 2021. *When the hidden transcript storms centre stage: From slow to sudden violence in eastern DRC's Kahuzi-Biega National Park*. IOB Discussion Paper. Institute of Development Policy, University of Antwerp.

## Abstract

It has been argued that conservation gives rise to incremental 'slow' violence when protected areas displace people from their lands and resources. The literature has shown how this can lead communities living at the edge of national parks to resist conservation regulations, often through everyday strategies designed to go under the radar of park authorities. This chapter makes an original contribution to the debate by exploring how slow violence and covert resistance transition toward forms of overt resistance and sudden violence. Taking a recent conflict over eastern DRC's Kahuzi-Biega National Park as an illustrative example, it shows how three factors explain the violent reoccupation of the park by indigenous Batwa communities: (i) the failure of peaceful strategies of rightful resistance to achieve meaningful change; (ii) an increase in the level of threats to Batwa livelihoods, identity and dignity over recent years; (iii) the arrival of opportunities to forge new alliances with more powerful actors who could support their struggle. My argument speaks to the literature on conservation by exposing the intricate relationships between different types of violence and resistance. Rather than romanticising the Batwa's actions, the chapter shows how their struggle has ultimately intersected with elite interests, politico-military networks, and broader conflict dynamics in a way that has led to widespread environmental destruction.

## 1. Introduction

Beginning in October 2018, hundreds of indigenous Batwa people returned to live inside eastern DRC's Kahuzi-Biega National Park from where they were displaced several decades ago. The event came as a surprise to outside observers, including some local conservation NGOs, who had believed their relations with the Batwa – who commonly portrayed themselves as the 'first eco-guards' of the park – 'had always been good'. They were further surprised when the Batwa started to ally with rebel groups, acquisitive traders, wealthy farmers, illegal miners and timber cutters to exploit the park's natural resources. The Batwa's actions have led to several violent confrontations and, by February 2020, the deforestation

of hundreds of hectares of forest in a part of the park home to critically endangered eastern lowland gorillas.

Building on the literature covering conflicts surrounding biodiversity conservation in the Global South, I seek to explain why the Batwa's decision to return to the forest should not have come as a surprise. In addition to studying the direct violence involved in fortress and militarised approaches to conservation (Duffy, 2014; Verweijen and Marijnen, 2016; Duffy *et al.*, 2019), the literature sheds light on the long-run social consequences of protected areas – such as marginalisation, impoverishment, increased mortality, and loss of cultural values (Lasgorceix and Kothari, 2009). There is an equally substantial body of literature on resistance to the new territorial arrangements established through coercive protected areas (Norgrove and Hulme, 2006; Holmes, 2007; Wilshusen, 2009; Cavanagh and Benjaminsen, 2015; Mariki, Svarstad and Benjaminsen, 2015). This work draws extensively on James Scott's (1985, 1990) writings on the covert forms of everyday resistance that play out under conditions of domination and the overt forms of resistance that can emerge, the latter of which range from peaceful and rights-based resistance to more violent forms of political contestation. Specifically, I aim to elaborate on what causes everyday forms of resistance to turn violent and burst onto the centre stage.

As an illustrative example, I look to the ongoing conflict surrounding territorialisation and militarised conservation in Kahuzi-Biega National Park in eastern DRC. This conflict has its roots in the 1970s when the Congolese government first displaced Batwa communities from the forest. In this chapter, I argue that the marginalisation and impoverishment the Batwa endured over the decades following their displacement should be seen as forms of incremental 'slow violence' (Nixon, 2011), defined as the kind of violence which takes place over long periods and is usually difficult to assign blame or responsibility for. I show how, in response, the Batwa developed infrapolitical strategies of covert or everyday resistance (Scott, 1985, 1990) designed to go under the radar of park authorities. This resistance occurred through both ideology and action, encoded in their hidden transcripts and physical practices of everyday contestation. A group of local and international NGOs also supported the Batwa to engage in peaceful forms of 'rightful' resistance (O'Brien, 1996), which involved several court cases, international media coverage and formal dialogue processes.

The nature of Batwa resistance changed in 2018 when their hidden transcript burst into the public arena. Over just several weeks, hundreds of Batwa reoccupied parts of the park's highland sector. Eco-guards from ICCN worked alongside soldiers from the government army to displace the Batwa once again, but in most cases without success. At the time the research for this chapter was conducted, eleven Batwa, at least two ICCN eco-guards and a government soldier had died due to the fighting, with many more injured on both sides.[44] I argue that a combination of three factors can explain the eventual turn toward violent reoccupation: first, the repeated failures since 2008 of peaceful, rights-based approaches to transform conditions of slow violence; second, an increase in threats to the Batwa livelihoods, dignity and identity since 2017; third, the arrival of opportunities around the DRC's 2018 national election for the Batwa to forge commercial and military alliances with powerful actors who could support

[44] A report released by MRG in April 2022 reports over twenty Batwa killed since they returned to the park in 2018 (Flummerfelt, 2022).

their struggle. I conclude that an improved understanding of the intricacies between covert and overt resistance and slow and sudden violence could help to prevent some of the social and environmental destruction that has engulfed Kahuzi-Biega National Park in recent years from occurring in other protected areas. It could also help to generate momentum toward a form of conservation that appreciates the experiences of people living in the vicinity of fortress conservation areas while acknowledging the massive challenges faced by state conservation agencies and NGOs operating in violent contexts like eastern DRC.

This chapter first provides a detailed overview of the literature on territorialisation, violence and resistance in the context of conservation. Methodological and ethical aspects of the research undertaken for the article are discussed next. The sections after that elaborate on the different stages through which Kahuzi-Biega National Park was territorialised and the accompanying slow violence; the ideological, material and rightful dimensions of Batwa resistance in the decades after they were displaced from the forest; and the factors which led the Batwa to violently return to the park, with its consequential social unrest and environmental destruction. The concluding section situates my original contribution to the literature by highlighting the need to understand the interconnections between covert and overt resistance and slow and sudden violence to mitigate conflicts between conservation NGOs, states and indigenous peoples in the Global South.

## 2. Territorialisation, displacement and violence

Calls are increasing to expand the global area of land dedicated to preserve nature, halt biodiversity loss and mitigate climate change. Take the case of Nature Needs Half[45] movement which advocates for protected areas to be established on fifty per cent of the earth's surface by 2030. Considering that about 15.4 percent of the world's land area and 3.4 percent of the global ocean area are currently covered by protected areas,[46] a radical expansion of conservation territory would be required to meet this target.

Holmes (2014:2) argues such an expansion would necessitate a process of internal territorialisation (Vandergeest and Peluso, 1995) whereby states 'sub-divide their territory, creating territorial units within national boundaries'. This involves three main steps. First of all, conservation actors must map and delimit the boundaries of the area they wish to control. Second, they must define how and for whom the land will be managed. Third, they have to create laws, plans and mechanisms to establish and enforce the new territorial arrangements. Whereas states hold the sovereign power to create new conservation territories, international NGOs often deliver the political, technical, financial and discursive resources for states to implement protected areas territorialisation (Holmes 2014). This is particularly true in the Global South where governments frequently lack the financial means or political will to implement conservation projects (Corson, 2011). Historically, territorialisation for conservation has been justified based on discourses that frame protected areas as people-free spaces (Neumann, 1998) where, according to the US Wilderness Act of 1964, 'man

[45] The website of the movement can be viewed as this link: https://natureneedshalf.org/who-we-are/history/
[46] See UNEP-WCMC's website for more details: https://www.unep-wcmc.org/

himself is a visitor who does not remain.' In more recent years, territorialisation for conservation is increasingly justified with reference to the apparent urgency of the global environmental crisis, most notably the loss of charismatic species (Massé 2019).

The most extreme forms of territorialisation for conservation involve the displacement of people from their lands and resources. In conjunction with Lasgorceix and Kothari (2009, 38), I differentiate between three different types of conservation-induced displacement: *voluntary* displacement, whereby communities move by their own volition; *forced* displacement, whereby relocation takes place in the face of community opposition; and *induced* displacement, whereby communities decide to move as a result of negative circumstances created by conservation. In other cases, people are allowed to live inside protected areas and use resources but in a much more restricted way, which displaces their economic activities elsewhere (Brockington and Igoe 2006). The most immediate social impacts of coercive conservation stem from the direct forms of violence involved in the eviction and exclusion of communities from their lands and resources. However, once a displacement event has occurred, communities can experience consequences that persist long into the future. These include landlessness, unemployment, marginalisation, impoverishment, food insecurity, morbidity, mortality, and loss of access to common property and ecosystem services (Brockington and Igoe, 2006; Agrawal and Redford, 2009). Following displacements, conservation actors seek to assert territorial control by monitoring who has access to protected areas and for what purposes. One way of doing so is through a process of 'green militarisation', or 'the use of military and paramilitary personnel, training, technologies, and partnerships in the pursuit of conservation efforts' (Lunstrum, 2014, 816). This approach represents an extreme version of the exclusionary or fortress approach to conservation adopted during the colonial and early to middle to postcolonial periods.

The costs of conservation displacement are felt most acutely by indigenous populations who depend intimately on the 'ecological base' of their lands for survival (West, Igoe and Brockington, 2006; Kabra, 2009). For indigenous peoples, displacement from lands inside protected areas involves not just a loss of access to material and livelihood resources, but also the loss of cultural values, histories and memories that they ascribe to landscapes, flora and fauna (Lasgorceix and Kothari, 2009). As a result, relations between indigenous peoples, states and international conservation NGOs can be particularly contentious (Adams and McShane, 1996; Dowie, 2011). It can seem paradoxical that indigenous peoples are so often excluded from protected areas, when at the same time they are frequently framed as the natural stewards of their environments, possessing knowledge and expertise needed for conservation to succeed in the long-run (Ostrom, 1990; Gadgil, Berkes and Folke, 1993; Domínguez and Luoma, 2020). Yet, as I will discuss later on, the actions of Kahuzi-Biega National Park's Batwa population provide reason to doubt some of the more romanticised accounts of indigenous peoples' relationships to and perceptions of nature. There are also occasions when benefits can accrue to indigenous communities from conservation-induced displacement, for example through compensation and development schemes, ecotourism projects and opportunities for employment (Beazley, 2009; Kabra, 2009). However, these benefits are often distributed unequally to the benefit of community elites (Tumusiime and Sjaastad, 2014). It is unfortunately those communities that have borne the brunt of displacement that are typically least able to access compensatory measures.

Taking inspiration from Verweijen (2020), I view territorialisation for conservation as involving different kinds and degrees of violence, which take place over different temporal and spatial scales. I draw attention to the 'sudden' acts of physical violence used to establish and manage protected areas through militarised methods – e.g. the instantaneous, visible forms of violence required to force people from once place to another. In addition to this, I focus on a delayed, subtler form of violence that often follows conservation displacements. Following (Nixon, 2011, 2) I conceptualise the latter as ' slow' violence: 'a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is not viewed as violence at all.' This kind of violence produces negative social effects that last long into the future, yet often without creating the kind of drama that captures international media coverage or NGO interest. In his book on the subject, Nixon explicitly refers to the long-run consequences of exclusionary conservation practices, as well as the prioritisation of tourism and hunting over local land uses, as forms of slow violence. Since then, several other authors have used the concept to highlight the creeping, more incremental forms of violence that surround protected area designation over extended timescales (Cavanagh and Benjaminsen, 2015; Witter and Satterfield, 2019).

Here I apply the concept of slow violence to highlight how a sudden act of violent displacement gave rise to a less spectacular, but no less debilitating form of violence – which is apparent in the Batwa's landlessness, marginalisation, impoverishment, and loss of cultural identity. As I will argue in the next section, this provides a breeding ground for clandestine resistance movements against conservation regulations, which can – under certain conditions – generate yet more sudden violence even years after a displacement event.

## 3. Resistance to conservation

Neither territorialisation for conservation, nor the associated slow violence, have gone unopposed. There are countless examples where communities affected by protected areas have engaged in forms of resistance and counter-territorial struggles. For instance, in Indonesia a community forcefully reappropriated land inside Lore Lindu National Park (Li, 2007). In eastern DRC's Virunga and Uganda's Mount Elgon National Parks people engaged in direct acts of violence against conservation personnel in order to access park resources (Cavanagh and Benjaminsen, 2015; Hochleithner, 2017; Verweijen and Marijnen, 2016). Resistance also occurs when populations openly destroy resources inside protected areas, including rare species and habitats. For example, Peluso (1992) found that Maasai pastoralists in Kenya started killing rhinoceros and elephants to demonstrate their opposition to conservation. Mariki, Svarstad and Benjaminsen (2015) documented a case in Tanzania where a group of villagers chased a heard of elephants over a cliff to resist conservation practices. In other cases, communities have made use of formal/legal non-violent strategies of 'rightful' resistance (O'Brien, 1996) such as petitions, court cases, appeals to customary land rights, and mobilising the support of politicians (Norgrove and Hulme, 2006; Holmes, 2007; Cavanagh and Benjaminsen, 2015). The acts of resistance described above can all be conceptualised as 'overt' resistance, which can include both 'violent forms of political action – e.g. riots, rebellion, revolutionary movements' and 'less violent forms – e.g. petitions, rallies, peaceful marches, protest voting, strikes, boycotts' (Scott, 1989, 33).

Scott (1985, 1990) has also drawn attention to other, more covert or everyday forms of resistance. These include acts such as foot-dragging, false compliance, desertion, theft, smuggling, arson, sabotage, assault, and anonymous threats (Scott, 1989, 34). In the context of conservation, everyday resistance often involves the deceptive relocation of boundaries to reduce the size of protected areas; feigned compliance with, and ignorance of, conservation regulations; and slanderous talk about conservation authorities, including character assassinations (Norgrove and Hulme, 2006). The ideological foundation of these acts lies in the 'hidden transcripts' of subordinate groups, or the discourses of dissent that usually go under the radar of authority figures, which show up in rumour, folktales, songs, expressions, humour and theatre (Scott, 1990). Cavanagh and Benjaminsen (2015) argue that the hidden transcripts of subordinate groups are what separates acts of everyday acts of resistance to conservation projects from low-level crime and opportunism. In contrast, the public transcript refers to the discourse used in open interaction between subordinates and dominant groups. This public discourse is used by dominant groups to portray themselves in a favourable way, and it is mimicked by subordinate groups, often through false approval (Scott, 1990).

### *3.1 Transitioning from covert to overt resistance*

In this chapter, I focus specifically on the relationship(s) between covert resistance on the one hand, and overt resistance whether peaceful or violent, on the other. I do not see these two types of resistance as mutually exclusive. Broadly following Vinthagen and Johansson (2013, 9), I contrast 'everyday resistance' as an initial, offstage, or later stage activity, with other more sustained, organised and conventional forms of political contestation. Thus, I view resistance to conservation as existing on a continuum ranging from continuous 'everyday' or clandestine activities to more open and often sudden modes of opposition. What interests me here, specifically, is why at certain points in time, covert forms of resistance suddenly burst onto the centre stage, and formerly peaceful strategies turn violent. At the same time, I acknowledge the reverse could occur.

To begin with, I address why resistance is so often confined to the covert end of the continuum. It is important first to understand the relationship between different forms of power and resistance. This can be summarised as follows: the more acute the power differential between elite and subordinate groups, the lower the chance there is that overt resistance will occur – and vice versa. According to Scott (Scott, 1985), for most of history this is what has led subordinate groups to opt for covert, everyday, minor forms of resistance that do not directly challenge incumbent power structures. He argues this has resulted in the predominance of everyday forms of resistance. Holmes' (2007, 186) work on resistance to conservation lends support to this observation. He argues people living close to protected areas are generally driven toward subtle forms of protest due to the fact that they 'face constraints limiting their potential for open rebellion.' Such constraints include fear of violent reprisal, the need to balance protest with making a living, and the cost of collective action (Holmes, 2007), but also the fact that 'formal or quasi-authorised practices of "rightful resistance" (O'Brien, 1996) seem infeasible or compromised by poor governance' (Cavanagh and Benjaminsen, 2015, 728). Acts of high-risk, violent and overt resistance are therefore usually only employed as a last resort (Norgrove and Hulme, 2006).

My literature review exposes two ways more covert forms of resistance can move along the continuum toward more overt strategies. The latter can, in turn, incorporate both peaceful and violent strategies. The first is when elites threaten subordinate groups' sense of dignity, autonomy or means of survival. According to this logic, 'external threats are the main factors behind collective mobilisation' (Lilja *et al.*, 2017, 44). Bayat's (1997, 57) research has suggested the urban poor seek to advance their position in relation to elites through a process of gradual encroachment: 'a silent, patient, protracted, and pervasive advancement of ordinary people on the propertied and powerful in order to survive hardships and better their lives.' For the most part, this involves quiet, individual and incremental, indeed covert, practices that benefit the poor at the expense of elites. However, when these benefits are in some way threatened, the poor tend to shift toward more direct, audible and collective, indeed overt, strategies. This pattern can also be observed in the conservation literature. Norgrove and Hulme (2006) found that the Bamasobo people in Uganda adopted more overt methods of resistance, including non-cooperation and threats of violence, when conservation authorities threatened to consolidate the boundary of Mount Elgon National Park, which would have prevented the Bamasobo from accessing important livelihood resources.

The second way everyday forms of resistance can move along the continuum toward more overt strategies is when opportunities arise for marginalised groups to shift power relations in their favour. One way such conditions can shift is when the dominant actor in a power relationship becomes weaker. Describing events that precede revolutionary actions, Scott (1989, 59) wrote, 'what had changed was above all the conditions which had previously confined the public expression of these actions and sentiments.' For example, there are cases where wider socio-political developments (elections, wars, crises of state legitimacy) alter the 'political opportunity structure' (Tarrow, 1998) of social movements, making normally risky forms of political contestation less dangerous and collective action more feasible. According to this logic, acts of overt and collective mobilisation are therefore about exploiting crises among the elite. Subordinate groups are more likely to adopt overt forms of political contestation when they find new partners to help them to organise and attract resources (Tilly and Tarrow, 2015). It is not uncommon for people living at the edge of protected areas to form alliances with more powerful state and non-state actors in order to receive financial compensation or continued access to land and resources (Beazley, 2009; Almudi and Berkes, 2010). This is often achieved through collaboration with human rights NGOs, politicians and even critical anthropologists who can help them to 'transcend the local and participate in arenas where protected area policy is decided' (Holmes, 2014, 3). Such alliances can enable marginalised groups to engage in rights-based forms of resistance, which seek to address injustices through peaceful, negotiated strategies.

However, overt resistance is not always, or even often, rights-based. Resistance can become more conflictual – and violent – when covert, peaceful or negotiated strategies fail to achieve their desired results. Orta-Martínez, Pellegrini and Arsel (2018) show how more contentious forms of political action can occur when governments are unwilling or unable to take the necessary regulatory or penal actions to ensure the rights of marginalised groups. Based on their research concerning local reactions to oil extraction in the Peruvian Amazon, the authors demonstrate how communities used transitions toward more open forms of conflict as a way to reopen negotiations with private companies and the state. Lombard (2016, 226) observed a similar dynamic in the north-eastern Central African Republic (CAR) where people used

rebellion as a way to 'secure greater inclusion in social and political orbits broader than those of their home region; specifically, they desired entitlements to "state" largesse.' According to this logic, the move toward open conflict, in the words of Carl von Clausewitz, can become a form of politics by other means. It is, therefore, possible that failed attempts to resolve disputes through rights-based efforts could provoke more violent forms of contestation if communities' expectations for justice and compensation are not realised.

In terms of the different forms of violence that surround overt resistance to conservation and other territorial projects, there is an important body of literature on the complex relationships between conflict and violence. This emphasises how violence is not just a different stage in a cycle of conflict, but rather 'a form of social or political action in its own right' (Brubaker and Laitin 1998, 425). In turn, there are diverse interpretations of how conflict interacts with acts of direct physical violence. For example, Collins (2008) suggests that antecedent conditions are not particularly important in explaining outbursts of physical violence, whereas Kalyvas (2006) places primacy on external factors, including the presence of armed groups, as drivers of violence. The latter is relevant in the context of resistance to conservation in the milieu of conflict, where populations have been found to solicit protection from armed groups in order to resist conservation regulations and access resources inside protected areas (see Verweijen and Marijnen, 2016). Under these conditions, 'not having connections with politico-military entrepreneurs makes contentious action dangerous, as it renders contesters vulnerable to repressive action by the authorities or competing power networks' (Verweijen, 2017, 471).

## 4. Uncovering resistance: methodological and ethical considerations

> For a social science attuned to the relatively open politics of liberal democracies and to loud headline-grabbing protests, demonstrations, and rebellions, the circumspect struggle waged by subordinate groups is, like infrared rays, beyond the visible end of the spectrum. (Scott 1990, 183)

As stated in the quote above, everyday resistance and hidden transcripts comprise the kind of political discourse and action that usually goes under the radar of authority figures – but also social scientists. The reason hidden transcripts and everyday resistance so often go undetected is because they are intended to. They are by their very design difficult to unearth, inaccessible to outsiders. A crucial task, then, for the study of social relations in power-laden situations, is to discern and bring to light the activity that usually lies at the 'infrared' end of political spectrum.

For this chapter, data were gathered as part of my PhD research between August 2019 and February 2020 in eastern DRC's South Kivu Province. Working with a team of Congolese researchers[47], I visited communities from Batwa and several different Bantu groups. Some of the Batwa groups were living in the park. Bantu and Batwa lived around the park in the villages and towns of Bitale, Civanga, Kabamba, Kafurumaye, Katasomwa, Katana and Miti. All the

[47] This team at various points included Michel Bazika and Papy Mulume. My thanks go out to them for their hard work – and for sharing their courage, knowledge and experience with me. Without their contributions in the field, this chapter would be immeasurably poorer.

villages were located in the territories of Kabare and Kalehe. They were selected because they are all located close to where the recent conflict between Batwa and the Congolese conservation agency ICCN has taken place. Four focus groups were carried out with Batwa communities, three with different Bantu communities, and four with the members of armed groups. These focus groups provided valuable arenas in which to learn how different stakeholders presented their public transcript to the outside world, including to scientific researchers like myself. Communication of the public transcripts involved considerable drama, gesticulation, and creative expression, always orchestrated under the watchful eye of the community chief or appointed leader. In these settings, I was able to witness both just how coherent the public transcripts of different communities were, but also the social consequences for individuals who exposed facts or discourses that were meant to remain hidden – such as being publically shamed, told to 'hush', or leave the room.

Hidden transcripts and everyday resistance are by nature difficult to uncover. To ensure peasant resistance is not misdiagnosed (Ortner, 1995) or identified based on the exaggerated claims of elites (Gupta, 2001), the researcher must document acts of resistance as well as the intentions which lie behind them. I tried to garner insights into such intentions primarily through over one hundred semi-structured interviews with Batwa and Bantu peasants – including members of armed groups – living in villages in and around the park's highland sector. I performed a further 36 interviews with key informants working for conservation agencies, NGOs and Congolese civil society based in Bukavu. In order to help research participants feel as comfortable as possible, I generally tried to conduct interviews in private 'offstage' locations, out of earshot of state authority figures and other community members. This was, however, difficult in Batwa communities where chiefs almost always wanted to be present. All field data were triangulated with extensive document analysis of letters, declarations, NGO reports, emails and WhatsApp messages.

During the course of the field research, I encountered numerous ethical and practical challenges. On several occasions, I was in possession of sensitive knowledge that, if made public, could have fatal consequences for people on either side of the conflict. For example, there were times when Batwa would let me know beforehand about an imminent attack against eco-guards, which I knew eco-guards were likely unaware of. Was the ethical decision here to say nothing, and let the conflict play out? Should I have tried to persuade the Batwa to halt their actions? Or should I have informed the eco-guards of what was about to come? What made questions like this even more perplexing was the fact I had invested considerable time building relationships with individuals on both sides of the conflict. At such moments of ethical ambiguity, it was challenging to effectively tread the tightrope walk between compassion and detachment, engagement and impartiality. In the end, I chose to maintain a healthy degree of objectivity throughout, confining my role to documenting and understanding the conflict events, as opposed to actively intervening on either side.

I also noticed how I started to develop my own hidden and public transcripts when confronted by unequal power relations and conditions of insecurity. For example, when conducting interviews in the presence of authority figures or members of armed actors, I often found myself adjusting my manner of speech out of either deference or fear. While this undoubtedly influenced the way in which respondents both perceived and interacted with me – how they answered my questions – it also enabled me to better understand the way they adapted their

own speech and action. I also noticed that as a European researcher, I was viewed as a potential means of accessing opportunities for economic accumulation and political power. On several occasions I was asked to intervene on behalf of a group in order to alter the balance of power in their favour. For example, a Mutwa chief made the following remark as I was leaving his community:

> We see you as the Angel who can bring the solution to our way of suffering. The way I see you, God could not have sent an Angel like you without doing something for us! You must be afraid of nothing here – you can plead for us as a leader. I believe through your research you will become a big man and once you are a big man you will be able to plead for us! We have three people jailed in Bukavu and we don't have anyone to plead for them. We need people like you to plead for their rights.[48]

All this meant I had to constantly decipher what lay behind my respondents' public speech: the carefully curated performance and façade designed to make me think, feel and act in a certain way. In turn, despite the extensive ethnographic data collected for this chapter, I should be clear that my insight into the hidden transcripts of Batwa remains limited, especially with respect to their intentions. The fact all the interviews I personally conducted were performed through a translator no doubt constrained my ability to understand the intimate political dynamics of the different communities living in and around Kahuzi-Biega National Park. While this poses limits to my interpretation, I have done my best to ensure the validity through a careful triangulation of data and methods, a thick description of the research context, an acknowledgement of my positionality and a critical interpretation of the research findings, taking into account probable biases as outlined above. To protect the anonymity of respondents, I have chosen not to mention any of them by name, unless they gave me permission to do so or their cases had already been widely reported in local media.

## 5. Territorialisation and slow violence in Kahuzi-Biega National Park

Kahuzi-Biega National Park is located in eastern DRC's South Kivu Province about 20 km west of the provincial capital of Bukavu. The name is derived from two extinct volcanoes in the highland sector of the park (see figure 10 from Mangambu Mokoso *et al* (2018, 53)): Mt. Kahuzi at 3,308m and Mt Biega at 2,790m. Its forests have been populated by Batwa people for thousands of years. The Batwa are considered the first inhabitants of the land by other ethnic groups and traditionally practiced a hunter-gatherer lifestyle. Several different Bantu groups also live in the vicinity of the park's highland sector in the territories of Kabare and Kalehe. These include the Bashi, Bahavu, Batembo, Balega and Barongeronge. These groups live in and around forests too, but do not have the same depth of cultural connections with their environment as the Batwa. Although the Batwa have historically collaborated with these groups, they have also been marginalised and discriminated against, to the point many Bantus consider the Batwa second class citizens (Bacirongo and Nest, 2015).

[48] Interview with Mutwa chief, Kabare territory, 07/01/2020.

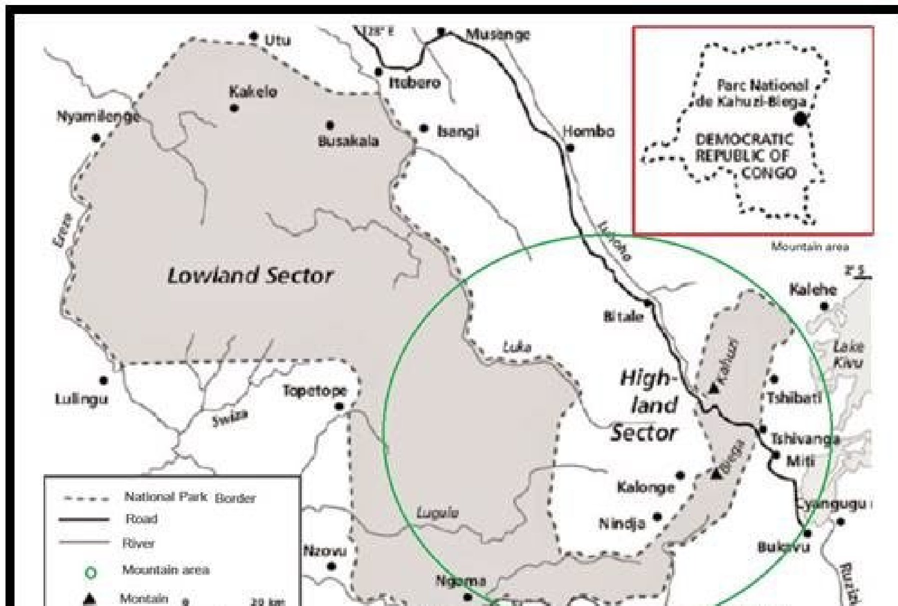


*Figure 10. map of Kahuzi-Biega National Park showing the highland and lowland sectors (see Mangambu Mokoso et al., 2018, 53).*

The territorialisation of the park occurred through a staggered process, involving three main stages. In the first stage, the Zoological and Forest Reserve of Mount Kahuzi was created by the Governor General of the then Belgian Colonial administration through decree No. 81/AGRI on 27 July 1937 (Barume 2000, 68). The reserve was expanded to include the Biega forest in 1951. At this time, the reserve authorities waivered certain restrictions so that Batwa could continue their activities in the forest.

In 1970, President Mobutu set in motion the second stage of territorialisation through the publication of *Ordonnance-loi* no. 70/316. Due in part to the lobbying efforts of international NGOs such as IUCN, this law transformed the reserve into a fully fledged national park, meaning all human habitation and resource use was now forbidden in *de jure* terms, even if this was not always enforced on a *de facto* basis. The change in legal status was justified as a way to preserve the park's large population of eastern lowland gorillas (Yamagiwa, 2008), which had begun to receive international acclaim through the films and photography of Adrien Deschryver, the park's first head warden and a descendant of the last Belgian Minister of Colonies. With the transformation of the reserve into a national park, the forests of Kahuzi-Biega stopped being a source of economic, social and cultural resources for the people who live in and around them (at least on paper). Officially, the park became a place of strict preservation, scientific research and – most importantly – tourism. Deschryver set-up the world's first program for gorilla tourism in the park during the early 1970s (Yamagiwa, 2008), which up to this day continues to attract people from across the world.

The 1970 decree reduced the size of the park from 75,000 ha to 60,000 ha, liberating 15,000 ha of land which was distributed among sixteen wealthy farmers (Mutimanwa, 2001). None of these farmers lived in nor on the edge of the park. All but one of them were non-natives to the area. Conversely, Batwa chiefs did not receive land as part of this settlement. The third stage in the territorialisation of the Park took place in 1975. *Ordonnance-loi* no. 75/238 re-extended the park to include a massive 540,000 ha lowland sector. This stretched all the way

from Shabunda territory in South Kivu, Walikale territory in North Kivu, across to Punia in the territory of Maniema. The extension was implemented without the consultation of either Bantus or Batwa living within the new park limits (Barume et al., 2000:72). Five years later in 1980, UNESCO further justified the territorialisation of the park's new boundaries in the eyes of the international community by designating it a World Heritage Site.

Batwa families[49] were forcefully displaced from the forest over a period from 1970 and 1975. The Congolese conservation agency[50] and the national army showed up at people's houses without warning to demand they move. Accounts of the expulsion are harrowing. Barume (2000:80) quotes a Mutwa widow living in the forests of Kahuzi-Biega at the time with her five children:

> We did not know they were coming. It was early in the morning. I heard people around my house. I looked through the door and saw people around my house. I looked through the door and saw people in uniforms with guns. Then suddenly one of them forced the door of our house and started shouting that we had to leave immediately because the Park is not our land. I first did not understand what he was talking about because all my ancestors have lived on these lands. They were so violent that I left with my children.

In an interview at the edge of the park, a Mutwa chief whose grandfather had lived inside the boundaries of what is now the park, recounted a similar story:

> 48 years ago, when we were staying in Catondo, we saw soldiers of the government come to our village with eco-guards. They told my grandfather, 'you must leave this place, it is no longer your home.' My grandfather should have asked the ecoguards and FARDC where they were going to let us live, because when we left the park we came to settle in the village of Katana as refugees. Up until now they have still never given us property.[51]

Once displaced, the Batwa were left landless, pushed to live among Bantu communities surrounding the park. They did not receive land or financial compensation. Other Batwa went onto live a nomadic lifestyle, moving from village to village in search of food and resources (Mutimanwa, 2001). In Dowie's (2011) words, they became refugees not of war or natural disaster, but of conservation. Barume et al (2000, 84) found that 'in all the villages to which they moved after being expelled from the Kahuzi-Biega National Park, the Batwa suffer from obvious nutritional deficiencies, poor hygiene, lack of medical care, inadequate housing, a high mortality rate and the impact of armed conflict in the area.' However, the Batwa were not just deprived of their means of subsistence, but also cut off from their identity and spirituality, which is inscribed in the forest as their ancestral land. In effect, their dispossession

[49] Barume et al (2000:80) estimate the figure at 6,000. This is roughly consistent with the NGO PIDP-Kivu's estimate that a total of 580 families were impacted. GIZ quote a figure of around 1,000 (ibid). A retired GTZ employee suggests that the figure could be as low as 300 individuals.

[50] At the time, the Congolese conservation agency was known as the *Institut Zaïrois pour la Conservation de la Nature.* Its name was changed to ICCN in 1997.

[51] Interview with Mutwa chief, Kabare territory, 10/09/2019.

did not end at the time they were displaced from the park, but has continued up until the present day.

The Batwa were not the only people affected by displacement. Barume (2000, 72) reports how around 13,000 Bantu people were living in the lowland sector of the park before it was extended in 1975. Although some of them refused to leave and were able to continue living in the park due to a lack of enforcement, many were forcibly displaced and moved to villages outside its boundaries. However, these communities were not as severely impacted by displacement as the Batwa. This was partly due to the fact that many were able to seek refuge among other Bantu communities outside the park, but also because Bantus are generally less dependent on forests for their survival. As a result, they were better positioned to take advantage of commercial opportunities in villages and towns outside of the forests. Many became traders, farmers, miners and businesspersons. Moreover, as a result of their more privileged position in Congolese society, Bantu peasants were better placed to demand land and financial compensation from the government. For instance, several Bantu chiefs received money for their lands that were gazetted as part of the Zoological and Forest Reserve of Mount Kahuzi (Mutimanwa, 2001).

By contrast, the marginalisation of the Batwa has limited their ability to access compensation or gain political influence. For the first four decades outside the forest, they had almost no outside support or opportunities to present their grievances to authorities. As I will discuss, the few times they have been able to share their struggle in courts of law and other public fora, little or no change occurred. Park authorities have rarely consulted Batwa in decisions regarding the management of Kahuzi-Biega National Park. In the 1970s they recruited Batwa as guides and trackers to support the process of gorilla habituation for tourism (Mutimanwa, 2001). But the Batwa were engaged on a mostly practical level, with a focus on enhancing tourism and research, as opposed to promoting a culture of genuine participation. Considering the above, I argue that the Batwa have endured several decades of slow violence, which is manifest in their continued dispossession after forced displacement, oppression of their cultural identity, exclusion from jobs and inability to pay for formal schooling.

By the 1990s, the DRC was becoming increasingly unstable, especially in its eastern provinces. The Mobutu regime was on the cusp of implosion. Foreign businesses were leaving and most international aid and development programs were on pause. Following the 1991 eruption of riots in the capital Kinshasa, the number of tourists visiting the country – and as a consequence tourist revenue coming from national parks – went into a massive decline (Yamagiwa, 2008). The two Congo wars (1996-1997 and 1998-2003) added another layer of violence that dramatically impacted the territorialisation of the Kahuzi-Biega National Park. The Rwandan genocide of 1994 pushed a great wave of around 450,000 refugees into the region surrounding the park. Two huge refugee camps, each hosting 50,000 and 20,000 people, were established near the highland sector on the side of Lake Kivu (Yamagiwa, 2008, 119). These refuges caused massive pressure on park resources by increasing the demand for firewood, charcoal and farmland.

The start of the First Congo War in 1996 saw a massive proliferation of arms in the region. Some poachers were able to assess guns to hunt animals and fend off eco-guards. The Second Congo War starting in 1998 brought more insecurity. The proliferation of rebels in all area

made it virtually impossible for eco-guards to conduct patrols. During this period, armed groups and people working with them could enter the park to hunt, extract minerals, make charcoal, gather firewood, and construct temporary farms. The fortress of Kahuzi-Biega was rapidly 'crumbling' (Kelly, 2014) shifting toward an open access space. However, it was still too dangerous for the Batwa to return to live in their ancestral lands due to the presence of the rebels, notably the FDLR group, which had taken refuge inside the park. Widespread impoverishment in the region meant that for many people bush meat became the only source of protein. At the time, gorilla meat sold for around $0.25 per kg, about half the price of beef (Yamagiwa 2008, 126). As a consequence, approximately half of the park's population of gorillas disappeared between 1996 and 2000 (Yamagiwa, 2008).

By 2000, ICCN controlled just twenty percent of the park's highland sector, where the population of valuable (in touristic and scientific terms) habituated eastern lowland gorillas lived. Rebel groups controlled almost the entire lowland sector. Recent data from Kivu Security Tracker (2021) shows over fifteen different armed groups operate in and around the park. My own research found evidence of multiple smaller armed groups, some with no more than five or ten recruits. Even though the end of the Second Congo War in 2003 has enabled ICCN and the Congolese military to gain greater state control over parts of the park, the proliferation of armed actors still makes it impossible for the 200 or so eco-guards[52] to assert territorial control over its boundaries. In many regions authority remains pluralised and continually contested, a characteristic shared by many protected areas positioned in regions affected by conflict (Lombard, 2016; Marijnen and Verweijen, 2020). However, this has not made state authority disappear entirely, especially in parts of the highland sector where ICCN's headquarters is located and regular patrols are conducted. This also happens to be the region around which most of the Batwa have lived since they were expelled.

## 6. From covert and rightful toward violent resistance

The original act of dispossession, as well as the subsequent slow violence the Batwa endured, did not go without contestation. However, due to the severe punishments for breaking park regulations, Batwa strategically opted against risky forms of overt resistance. But they did engage in covert or everyday resistance. As I argue in this next section, illegally entering the park and collecting resources not only helped them survive, but also enabled them to make continued claims about their rights to the park. The latter point becomes clear when analysing the ideology that supported and endorsed their acts.

### *6.1. 'We would sing these songs to remember how we were suffering'*

The ideological foundations of Batwa resistance have been forged and sustained through religious and spiritual ceremonies, storytelling and songs. Together, these social practices build on a common identity which has been further strengthened by a sense of collective grievance. First of all, the Batwa's religious beliefs are a hybrid of Christian and other spiritual traditions. Batwa would often draw on Christian symbols when describing their relationship

[52] Interview with representative of conservation NGO, Bukavu, 12/01/2020.

with the forest. For instance, one Batwa chief told me ‘when all of the world’s people were spread across the earth from the Tower of Babel, God gave Bambuti the forests that are now inside the park.’[53] Other Batwa referred to the park as their ‘Eden’. Others would cite their faith in God as what has enabled them to survive in conditions of extreme poverty for so long.

There are Batwa that believe in spirits living inside the forest, or that, metaphorically speaking, *are* the forest. These spirits help the Batwa to perform initiation ceremonies; give them good health and resources; prepare them for battle; and let them know when danger is coming. To keep these spirits on their side, the Batwa would go to the forest and make offerings, often in the form of bush meat and traditional alcohol.[54] When making these offerings, they would drink, dance and sing their praises to the spirits. A group of Batwa living inside the park’s highland sector in Kalehe shared one of these songs with me. It went, ‘We are ready to be blessed. If we have respected your conditions, do come and bless us. We are waiting for you here. We have left our jobs to come for you. Don’t get angry, come and bless us!’[55] Prior to the Batwa returning to the park in 2018, ICCN staff would occasionally placate them by allowing groups of Batwa to go into the forest and make offerings to their spirits. A retired employee of GIZ told me, ‘We would provide them with a little Kasiksi beer, a sheep to eat, and allow them to play their drums in the forest as part of their spiritual tradition.’[56]

Second, Batwa folk tales and songs entail long and detailed accounts of the injustices perpetrated against them. Narratives of victimhood have become a key aspect of the Batwa’s subjective experience. Batwa regularly complain that they ‘are not considered people like other Congolese!’[57] As the majority of Batwa cannot read or write, these narratives have been shared through oral tradition during funerals, weddings and other social events. Sung and told in the Batwa’s local language, Kituwa, such discourses could partly be hidden from authority figures. In the most commonly recounted tale, that of their displacement, the first conservator of the park, Adrien Deschryver, is described as an archetypal villain: ‘He was a robber, he took things belonging to Bambuti and gave them to the government!’[58] True or false, the Batwa spread rumours that Deschryver was an ivory trader in cahoots with Mobutu, a depiction closer to a shadowy businessman than the courageous conservationist you can see today on YouTube.[59] These narratives of grievance were often infused with dreams of returning to the forest. As one Mutwa chief now living in the park told me,

> We would sing songs outside and inside the park to remember how we were suffering; *how we could live in a good way inside our forest if we returned*. For the songs we use a mixture of Swahili, Kituwa [a local language of the Batwa] and Kitembo languages. As most Bambuti did not study, to pass stories down from our ancestors, we teach our songs to little people [children] so they know what the song is about, and then the children sing it to others. This is the way we communicate our way of living. It is not

[53] Interview with Mutwa chief, Kalehe territory, 08/012020.
[54] Focus group with Batwa, Kalehe territory, 08/01/2020.
[55] Focus group with Batwa, Kalehe territory, 08/01/2020.
[56] Interview with former employee of GIZ, Bukavu, 06/01/2020.
[57] Interview with Mutwa chief, Kalehe territory, 28/08/2019.
[58] Interview with Mutwa chief, Kalehe territory, 11/09/2019.
[59] See https://www.youtube.com/watch?v=MKkZawWUqTQ

> only me or old men that are the keepers of the songs, all of the community must have the songs. The culture is shared between all of us.[60]

Alcoholism is rife among Batwa in eastern DRC.[61] During my research, I often saw the Batwa of Kahzui-Biega drinking alcohol, including modern Congolese beers like Primus, but also traditional drinks like palm wines and fermented beers made from maize and bananas. They would often consume these drinks when singing and dancing and during their clandestine missions back into the forest, when they would invoke the spirits of their ancestors.[62] I also heard tales of Batwa becoming hostile, even dangerous, when under the influence of alcohol. A Bantu farmer told me, 'You do not want to meet a Bambuti when they are drunk!'[63] However, this does not take away from the 'release' function alcohol plays in Batwa communities: as a social lubricant it enables the unencumbered communication of their hidden transcripts of dissent, if only for brief periods.

The Batwa's ideology of resistance – in particular their dream of one day returning to the land of their ancestors – took shape in the destitute villages outside of the park to which they had been forcefully relocated. Here, they came together in what Scott (1990, 209) calls 'communities of fate', bound together by a shared sense of injustice and conditions of impoverishment. The emergence of a coherent and shared ideology of resistance was facilitated by two socio-spatial features of these villages, and by a careful polishing-and-policing by Batwa chiefs. First, the Batwa villages are located away from other communities and outside the direct sight of government or park authorities. This has enabled them to vent their anger and resentment in relative safety. It also left them less susceptible to the kinds of manipulation 'from above' (see Geenen and Verweijen, 2017) which could have prevented a coherent and shared critique of power from being elaborated.

Second, the Batwa villages are located very near to the park boundaries. This made it possible for them to secretly return to the forest in order to continue their cultural and spiritual traditions. During stealthy night-time missions, they would enter the park to collect special objects, such as leopard and monkey skins, which they would use to make clothes to crown their chiefs, and herbs used in fetishes. They would also continue their initiation ceremonies. According to a Mutwa man, these 'activities take place every year during the dry season. They can only take place in the forest where there are animals.'[64] Batwa also have strong traditions of witchcraft. Using secret herbs from the forest, their sorcerers would conjure powerful 'talismans' which can, supposedly, stop a man from being killed during battle. For these talismans to be effective, Batwa men must adhere to certain conditions during a time of war. Among other things, they must not accept water or money from another person, or have sexual relations of any kind.

Batwa chiefs make sure to carefully polish and police what is said I public, to an audience, and what is said in private – a process which Scott (1990, 128) calls 'surveillance from below'. This

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[60] Interview with Mutwa chief, Kalehe territory, 09/01/2020.

[61] As reported by MRG: https://minorityrights.org/2019/02/13/bambuti-and-batwa-in-the-shadows-of-drcs-flawed-election/

[62] Interview with Mutwa chief, Kalehe territory, 09/01/2020.

[63] Interview with Bantu farmer, Kabare territory, 12/10/2019.

[64] Interview with representative of Batwa, Bukavu, 26/08/2019.

was made clear during my meetings and focus group discussions. After having carefully pre-selected the focus group participants, Batwa chiefs would lead the conversation, but when they felt it would back up their account, call upon someone else to take the stage. This was aided by the fact that Batwa communities surrounding the park are currently organised through vertical power structures, where authority resides primarily with the chief and emanates downwards. In recent years, the availability of mobile phone technology and an internet connection have enabled Batwa chiefs to more effectively communicate with each one another where the dividing line between their public and hidden transcripts should sit.

### *6.2. 'When we returned to the forest, we would look for things that could give us money'*

Since their displacement, the Batwa also engaged in material forms of everyday resistance. These actions had both practical and symbolic implications. On the one hand, covertly gathering park resources enabled the Batwa to meet their physical subsistence needs. On the other hand, it made a political point about the Batwa's historical rights to the land and resources inside the park. Usually at night, under the cover of darkness, the Batwa continued their practices of hunting bush meat, fishing, collecting charcoal for cooking, wood for building and medicines for healing inside the park. A Mutwa man described how,

> Even before 2018-2019, we would enter the park. If ICCN met us there we could be killed, so we had to go in secret. When we returned to the forest, we would look for things that could give us money. We would make baskets. We would pick grasses for pregnant women. We would hunt bush meat to feed our children.[65]

Park authorities knew about these activities, but did not see them as a major threat. In an interview, the director of a conservation NGO that works with the park told me, 'The Bambuti returned to the park in the past to gather resources, but only on an individual basis. It was never all of the Bambuti. They would go one at a time and so it was easy for them to be chased from the park [by eco-guards].'[66]

However, Batwa not only gathered resources for their own subsistence, but also for sale to their Bantu neighbours. For example, they often sell bush meat at mining sites surrounding the park in the villages of Bitale and Katasomwa. They would also hunt leopards and monkeys and sell the skins to Bantus, who also use them to make hats and other items of clothing to crown their chiefs. There are even stories of Batwa entering the forest with artisanal miners to show them the location of mines once used by the Belgian mining company MGL.[67] To maintain their access to these and other resources, Bantu communities at the edge of the park tended to look the other way when they saw Batwa enter the forest illegally.

For the Batwa, these actions enabled them to access the resources needed for their cultural and physical survival. However, the actions were also underpinned by a belief that the park and its resources were legitimately theirs. For example, a Mutwa man told me, 'This has never

[65] Interview with Mutwa chief, Kalehe territory, 09/01/2020.
[66] Interview with director of conservation NGO, Bukavu, 07/01/2020.
[67] Interview with artisanal miner, Bitale, 29/08/2019.

been the park. It has been the land of our ancestors since it was discovered!'[68] This corresponds with Holmes' (2007:188) observation that 'the continuation of banned practices is itself a political statement, as it contains, alongside other motivations, an implicit statement that these practices should be allowed.' In agreement with Ortner (1995), I acknowledge the risk of over-politicising the actions of marginalised groups. However, when considered in the context of the ideological evidence presented above, one can reasonably conclude that the Batwa's illegal livelihood activities were – at least in part – acts of resistance.

### *6.3. 'They say they plead for the rights of the Batwa'*

As I have argued, the vast majority of Batwa opposition took place in the infrapolitical arena, i.e. through hidden transcripts and everyday resistance. However, more recently the Batwa have been able to engage in more overt forms of rights-based resistance against park authorities (O'Brien, 1996). This mode of opposition attempts to counter elites on their own terms by positioning critiques within the hegemony. Rightful resistance can be potent, but like infrapolitical strategies, does not pose an outright challenge to dominant power structures.

The Batwa engage in forms of rightful resistance through the development and propagation two narratives. First, a discourse that the Congolese state – acting through ICCN – has failed to deliver on the social contract of conservation: it displaced the Batwa from their lands without ever providing compensation. Secondly, a discourse that the Batwa's traditional forest-based lifestyle is compatible with the goals of modern conservation: i.e. that they are exemplars of what has been described in the literature as 'the ecologically noble savage' (Raymond, 2007). In support of this discourse, some Batwa went as far as to describe themselves as the 'first eco-guards' of the forest. Using these narratives as a discursive starting point, a group of local and international NGOs have helped the Batwa to express their grievances in courts of law, through international media, and by way of formal dialogue processes. These forms of rights-based resistance have taken place alongside the covert strategies documented above, rather than replaced them. Ultimately, the failure of these rights-based forms of resistance contributed to the Batwa's decision to engage in overtly violent forms of political contestation over recent years.

The international NGO Minority Rights Group (MRG) and the local Congolese NGO *Environnement, Ressources Naturelles et Développement* (ENRD) helped the Batwa to open several legal cases against the Congolese government for displacing them from the park without compensation. In 2008, a case was brought before Bukavu's *Tribunal de Grande Instance*, after which it was transferred to the Court of Appeal. Another case was taken to the DRC's Supreme Court in Kinshasa in 2013. MRG initiated yet another case at the African Commission on Human and Peoples' Rights on behalf of the Batwa in November 2015. These cases have not been successful and the last two remain pending. In conjunction with this, the NGO Survival International has helped the Batwa to communicate their plight to a wider audience by publishing articles on their website and through international media channels.

[68] Interview with Mutwa chief, Kalehe territory, 09/01/2020.

The international NGO Forest Peoples Programme (FPP) worked with the local Congolese NGO *Centre d'Accompagnement des Peuples Autochtones et Minoritaires Vulnerables* (CAMV) to facilitate a 'constructive dialogue' between the park authorities at ICCN and the Batwa. Beginning in 2014, they used something called the 'Whakatane Mechanism' to try and help the Batwa gain access rights to the park for cultural and subsistence purposes. This involved a mapping exercise, participatory workshops and training programmes. FPP claim on at least three occasions ICCN promised to either allow the Batwa to live inside the park or find land outside the park and allow them periodic access to ancestral sites within the forest. However, up to this day no significant changes have been delivered.

The representatives of FPP and CAMV blame the failure on ICCN for supposedly abandoning the dialogue process. However, several Batwa chiefs have also started to distrust the NGOs which claim to support them. In two separate villages, groups of Batwa provided me with lists of NGOs that I should 'not talk to if I want to continue to be friends with the Bambuti.'[69] A commonly expressed opinion was that people started these NGOs claiming to advocate for Batwa, but then 'ate' the money they received on the Batwa's behalf. The number of NGOs that have sprung up that ostensibly support the Batwa is certainly staggering. The level of scepticism is exemplified in the statement of one Mutwa chief:

> An NGO invited me to several different meetings, but this NGO lies that they are going to plead for our rights and bring projects. They swallow the money and then claim in their reports that they are pleading on behalf of the Bambuti!

Another Mutwa chief expressed a similar sentiment:

> What the local population…is regretting is that there are NGOs that always say that they plead for the right of Bambuti, but since we are passing a bad situation in our land, we have never seen a single person from these NGOs coming to ask us about what is wrong with Bambuti in Kahuzi-Biega National Park. These NGOs are only interested in taking money, but never doing anything for us.[70]

It appears that the longer the rights-based initiatives of international and local NGOs did not deliver change, the more the Batwa became disappointed, resentful and frustrated. Yet despite these failures, the organisations that support the Batwa do appear to have encouraged them to at least envisage how an alternative existence could be possible. In other words, to see the slow violence of displacement as neither inevitable nor unresolvable, but as an injustice to be challenged and ultimately overturned. It was, after all, in the midst of these formal dialogues and court cases that the Batwa decided to take the scale and intensity of their resistance to a whole new level and return to the park for the first time *en masse*.

[69] Interview with Mutwa chief, Kabare territory, 13/01/2020.
[70] Interview with Mutwa chief, Kabare territory, 13/01/2020.

*6.4. 'How can we be in a dialogue and now you are killing people?'*

Early on the morning of 26 August 2017, a Mutwa man named Nakulire Munganga and his 17-year-old son Mbone Nakulire entered the park to collect medicinal herbs, supposedly to treat diarrhoea and cholera.[71] They were shot at by ICCN eco-guards on patrol, leaving the father wounded and the son dead. This provocation – a threat to Batwa livelihoods and identity – led to almost instantaneous collective mobilisation. August 27, the following day, ICCN eco-guards took the boy's body to the Batwa village of Buyungule next to the park. A group of Batwa then took the body to the ICCN's headquarters in Civanga to protest the killing. Their chief asked the park management, 'How can we be in a dialogue and now you are killing people?' As the hours passed, the tension increased. Some young Batwa men started waving sticks and machetes. One shouted, 'We are going to stay here and this evening we are going to build our houses in our forest [inside the park] if you do not give us another place where we are going to live!'[72] Although this did not precipitate immediate action, the event does appear to have laid the ground for a mass land invasion later on.

Months after the death of Mr. Nyakulire's son, an international organisation attempted to buy land for Batwa outside the park.[73] But this did not go to plan. A representative of the Batwa in Bukavu told me how the director of a local NGO had received the money, but then proceeded to rent a plot of land for a short period.[74] The director of this NGO is then said to have taken the rest of the money to buy himself a house and a car. When the rental agreement came to an end, the owner of the land asked the Batwa to vacate the area. A representative of the Batwa in Bukavu said, 'Both the organisations that support the Bambuti and the Congolese government have deceived us!' Once again, the Batwa's expectations had been raised but not realised. The event further fuelled perceptions that NGOs only support the Batwa out of personal interest. It represented both the failure of rights-based resistance to achieve meaningful change and another knock to the Batwa' s sense of worth. It is perhaps not surprising that at this point Batwa resistance started to turn violent.

In October 2018, a group of Batwa entered the park's highland sector from Kabare territory. They then used their mobile phones to tell the Batwa living on the sides of Kalehe and Bunyakire to join them. The broader community of Batwa was emboldened by the actions of these brave first-movers. In effect, what had been a utopian dream about returning to the park started to become a reality. It was as if they had taken their first full gasp of air in decades, or to use one of James Scott's (1990, 196) metaphors, that waters building up behind a damn wall had finally burst through, releasing an immense pressure. Over the course of a month, it was reported that over two hundred Batwa families had returned to the forest.[75]

The land invasion appears to have come as a surprise to most outside observers. For example, a Bukavu-based conservation NGO told me, 'Before 2018, the biggest thing to happen was

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[71] I have reported their names directly given they have been quoted extensively by NGOs and in international media. For example, see: https://www.forestpeoples.org/en/whakatane-mechanism/news-article/2017/young-batwa-boy-has-been-killed-national-park-while-trying

[72] See: https://www.forestpeoples.org/en/whakatane-mechanism/news-article/2017/young-batwa-boy-has-been-killed-national-park-while-trying

[73] Interviews with Mutwa and Bantu chiefs, September 2019.

[74] Interview with representative of Batwa, Bukavu, 26/08/2020.

[75] See: https://www.landrightsnow.org/drc-indigenous-pygmy-communities/.

the killing of the gorilla Maheshe. Before and after that our relationship with the Pygmies was good!'[76] Another leader of an environmental NGO in Bukavu described how,

> The Bambuti have also tried to return to the park in the past, but only on an individual basis. It was never all of the Bambuti. They would go one at a time and so it was easy for them to be chased from the park.[77]

All of this does not mean the relationship between Batwa and park authorities was entirely cordial before the recent violence. It is more likely a sign that the Batwa had carefully managed the discourses they presented in public and in private. The reason the events of 2018 came as such a surprise to so many observers was, therefore, because the Batwa had concealed their most subversive political ideas from public view up until that point.

Upon returning to the park, the Batwa unleashed sudden waves of both physical and environmental violence. Since October 2018, there have been several major confrontations between Batwa and ICCN eco-guards reinforced by government soldiers. The Batwa justified the return to the park and move toward overtly violent resistance with politicised narratives which point back to the slow violence they have endured for fifty years: 'They call this park, but it is not a park; it is our ancestors' field! They were chased [by the military] and went to live as refugees. That is why we have now decided to return in the park.'[78] On multiple occasions, Batwa men told me how they were willing to die fighting for their land, while Batwa women said they did not want their husbands to come back until the park was once again theirs. To some Batwa, this was a do or die situation. One chief exclaimed, 'We would rather be killed than abandon the land of our ancestors for the second time!'[79] These discourses have fuelled several major confrontations between Batwa and ICCN eco-guards, the latter of which were often reinforced by government soldiers.

The first major act of violence took place on 23 April 2019. A Mutwa man was shot on the outskirts of the forest. His body was later found near one of ICCN's patrol stations. The Batwa assumed ICCN were responsible for the murder and attacked two eco-guards the following day. One of the guards died from his injuries. The local police arrested two Batwa for the second attack, yet no one was held accountable for the death of the Mutwa man. On 20 July 2019, more violence erupted near ICCN's park headquarters at Civanga, leaving one person dead and fourteen others injured. On 01 August 2019, a Batwa man and an eco-guard were killed following a fight in Kalehe's Mbinga-Sud groupment. The next day, according to the leader of a local conservation NGO, 'the Bambuti organised themselves with firearms, spears, machetes to search for park guards so that they could return to a bloody fight.'[80] They reportedly joined forces with an armed group, the Mai Mai Cisayura, to attack the ICCN patrol post in Lemera.[81] The ensuing confrontation went on for several hours and resulted in the

[76] Interview with director of conservation NGO, Bukavu, 08/01/2020.
[77] Interview with director of conservation NGO, Bukavu, 07/01/2020.
[78] Interview with Mutwa chief, Kalehe territory, 11/09/2019.
[79] Interview with Mutwa chief, Kabare territory, 13/01/2020.
[80] Interview with director of Batwa NGO, Bukavu, 26/08/2019.
[81] This version of events, widely reported at the time I conducted research, has now been challenged in a report by Minority Rights Group (see Flummerfelt, 2022). The report suggests the Batwa attacked the patrol post alone, without support from Cisayura's group.

death of one eco-guard. Another fight took place on 20 December 2019 when eco-guards attempted to secure the boundaries of the park near to the Batwa village of Muyange, which is close to Kafurumaye at the park's entrance. Although no one was killed, the fight is said to have lasted several hours and eventually caused the eco-guards to flee. On 30 November 2020, another fight broke out between a group of Batwa and government soldiers in the town of Kabamba at the edge of the park.[82] The Batwa had been protesting for the release of their chief from Bukavu Central Prison. They also demanded that the soldiers return bags of charcoal they had confiscated from the Batwa. By the end of the day, three more Batwa and a soldier were dead. As of August 2021, at least eleven Batwa, two eco-guards and a government soldier had died as a result of the fighting. A report released in April 2022 estimates the number of Batwa killed to have reached a number closer to twenty (Flummerfelt, 2022). Many more Batwa have been injured. Several have also been jailed in the towns of Bukavu and Kavumu since the conflict began.

The recent conflict has not only wrought violence on human bodies, but also on the natural environment. Since they re-entered the park, groups of Batwa started to do openly many of the things they had previously done covertly, but on a much larger scale. Working alongside other actors with an interest in the park's resources, the Batwa engaged in and facilitated large-scale extraction of timber, charcoal and, to a more limited extent, minerals. The ensuing scramble for park resources has led to the destruction of several hundred hectares of forest in the highland sector – a process which was ongoing at the time this thesis was published. The leader of an NGO that works with both Batwa and the park summarised the situation: 'The idea that Pygmies are conservationists is not true as they are the ones destroying [the forest]. Today, they know the importance and possibility of money. They do not go back to the forest to live there as they did in the former time – they go to make money.'[83] The Batwa's decision to engage in and facilitate widespread resource extraction may seem somewhat surprising given the Batwa's ancestral connection to their land. But as one Mutwa chief explained, 'This is our ancestors' land and we can do as we want with it. If there are minerals, we can mine them. If there are forests, we can make charcoal. We do not have to ask for permission!'[84] Put simply, the Batwa's interests had taken on economic as well as political and cultural dimensions in the decades they had spent outside the forest.

[82] See: https://laprunellerdc.info/sud-kivu-deux-membres-du-peuple-pygmee-et-un-element-fardc-tues-dans-des-echauffourees-a-kabamba/

[83] Interview with director of local conservation NGO, Bukavu, 07/01/2020.

[84] Interview with Mutwa chief, Kalehe territory, 07/01/2020.

## 7. The role of military and commercial alliances

The Batwa returned to the park just weeks before the DRC's national election. These elections typically spark increased political positioning among actors seeking to reinforce their negotiating positions in relation to an incoming government. These dynamics are likely to have knock-on effects on local dynamics of conflict and violence. In this regard, it is possible the Batwa reoccupied the forest as a way to draw attention to their cause during a period in which the structure of wider political opportunities across eastern DRC was in flux. Both before and after the national election, the Batwa took advantage of existing as well as new opportunities to form strategic military and commercial alliances with three different groups of stakeholders. In this section I provide an overview of these alliances.

First, the Batwa allied with some armed groups operating in and around Kahuzi-Biega National Park, which provided them with access to weapons and soldiers to assert control over the re-occupied territory. A Bantu chief in Kabare said, 'these armed groups have trained Bambuti how to handle guns. You can now see Bambuti running with these guns inside the forest.'[85] A Bantu man who had been mining in the park described the situation: 'the Bambuti have opened "a bridge" for these armed groups to profit from the destruction of the park.'[86] A customary chief supported this claim: 'Rebels were mining secretly for many years, but for a year and half it is no longer a secret. This is because Bambuti now say the park is their land and so it is no longer considered a park.'[87] For example, the Mai Mai Cisayura was operating in the park long before 2018. It started working with a Batwa group from Kalehe to profit from the resource frontier they had opened up. Local media reported this armed group helped a group of Batwa attack the patrol post in Lemera, killing one eco-guard in the process.[88] For the armed groups, an alliance with the Batwa might serve as a welcome legitimation of their presence inside the park. For example, Chance Mihonya, the leader of another armed group, started operating in the park's highland sector not long after the Batwa re-entered the forest. He falsely claimed to be a Batwa 'protecting his brothers and sisters'[89] in order to justify his presence in the park. Another armed group under the leadership of a certain 'Morhegane' worked with a group of Batwa to access mines on the Kabare side of the highland sector.

Second, the Batwa collaborated with businessmen from the provincial capital Bukavu, who typically control the region's trade networks. Over several months, huge trucks filled with bags of charcoal and planks of wood could be seen leaving villages at the edge of the park. These trucks would collect the charcoal and timber, then drive to markets in larger towns such as Kavumu and Bukavu. On a single day in September 2019, I recorded six large trucks filled with charcoal parked in just one village close the edge of the park in Kabare. The charcoal trade is driven by a high urban demand. At first it went unregulated. The trucks could pass freely to Bukavu without being stopped. In December 2019, ICCN started working with the military and police to clamp down on the movement of illegal goods form the park. They started checking truck drivers had the correct documents to transport goods. If they did not,

[85] Interview with Bantu chief, Kabare territory, 19/10/2019.
[86] Interview with gold trader, Bukavu, 15/09/2019.
[87] Interview with the customary chief, Kabare territory, 09/09/2019.
[88] See: https://fr.metrotime.be/actualite/rdc-un-chef-milicien-accuse-de-deforestation-du-parc-de-kahuzi-biega-tue
[89] Interview with Chance Mihonya, Kabare territory, 16/10/2019.

the goods were confiscated. In response, the traders started transporting goods overnight by boat through Lake Kivu, where they could move undetected. Other reports suggest the Batwa were able to forge alliances with 'big men' from Bukavu, including members of the military, provincial ministers and members of the provincial legislature. These men, who wield considerable influence at the regional and national levels, had owned illegal farms in the park's ecological corridor. However, when these farms were disbanded after the park's current director refused to accept their bribes in April 2018, their owners decided to take revenge. According to the park director at that time, 'The farmers have promised that they will use all means to destabilise us. And the instrumentalisation of the Pygmies to come and destroy the Park is one of them.'[90] The farm owners could plausibly have done this as a way to create the impression they had leverage over the Batwa, which they could then use to advance their own political agendas.

Third, the Batwa deepened their relationship with members of Bantu communities living at the edge of the park in order to access the financial capital and technology to effectively exploit resources. To consolidate these relationships, a Mutwa chief in Kalehe even gave Bahavu and Bashi men – both Bantu groups – positions as deputy chiefs of his new territory inside the park. The main source of Bantu–Batwa collaboration has been through the production and trade of charcoal. Sometimes Bantus who entered the park would use this charcoal for themselves, but the majority was sold to the traders coming from urban centres. For example, a group of Batwa has started working with Bashi villagers who own a chainsaw in the village at the edge of the forest at the limit of Kabare and Kalehe. With this chainsaw, they have been able to rapidly strip the forest off several hills. Both groups have come to an agreement to share the profits from the sale of the timber and charcoal. This Batwa community was also working alongside Bantu miners. The Batwa chief told the first author, 'We are not traditionally miners. To mine, we must collaborate with Bantus who have the equipment and knowhow to set up mines.'[91] The same chief installed two guards near an entrance to the park to regulate movement and tax Bantu woodcutters, charcoal makers and miners who want to enter the park. The Bantus must pay a fee of between 200–500 Congolese Franks, after which they receive a paper 'ticket' which enables them to extract resources for the day. Alternatively, Bantu enter the forest in exchange for a percentage of the resources they gather. Bantu peasants are inclined to accept this system because first, many of them believe Batwa have legitimate rights to resources inside the park, and second, some of the Batwa have guns and collaborate with armed groups that cannot easily be argued with.

Fourth, even more controversial are rumours that employees of ICCN secretly collaborate with the Batwa because they personally benefited from extraction of park resources, and/or they wanted to make the current director of park look incompetent, which relates to an ongoing conflict between the director and his employees.[92] Regarding the former, it is a well-known fact that eco-guards collaborate with populations surrounding protected areas in central Africa to benefit from the extraction of resources (Norgrove and Hulme, 2006; Lombard, 2016; Titeca *et al.*, 2020). Kahuzi-Biega National Park is probably no exception to

[90] As reported by PHYS.ORG, 18 October 2019: https://phys.org/news/2019-10-high-stakes-conflict-threatens-dr-congo.html

[91] Interview with Mutwa chief, Kalehe territory, 13 January 2020.

[92] Interviews with representatives of conservation NGOs working with the park, September 2019 to February 2020.

this rule. Regarding the latter, this is less plausible given ICCN employees would unlikely have the financial means available to sufficiently incentivise the Batwa. It is more likely that disgruntled employees chose to turn a blind eye to certain illegal activities in the park, which could reveal a kind of clandestine resistance of their own against the park director.

## 8. Discussion

This chapter makes three contributions to the literature on the different types of violence and resistance that surround efforts to territorialise land for conservation. First, it responds to Lilja et al's (2017, 40) observation that 'relatively few scholars have so far elaborated on the inter-linkage of shifting forms of resistance in general and how acts of everyday resistance entangle with more organised and mass-based resistance in particular.' Previous work has studied how different forms of resistance to conservation form part of 'repertoires of mobilisation' (Tilly, 1978), in which resistors deploy both covert and/or overt strategies. For example, based on research on eastern DRC's Virunga National Park, Hochleithner (2017, 100) found that 'While local and trans-local elites employ more overt, explicit forms of (political) contestation, peasants resort to "weapons of the weak", engaging in more covert, implicit forms of everyday resistance'. In Uganda's Mount Elgon National Park, Norgrove and Hulme (2006) discovered that park neighbours tend to opt for low-risk, covert strategies of resistance, but resort to overt forms of resistance to maintain access to more high-value uses of park resources. Building on these works, I provide an in-depth case study of the factors which push covert and rightful forms of resistance along the continuum toward more overtly violent forms of political contestation. Taking inspiration from the literature on resistance and collective mobilisation, I have highlighted the role of threats and opportunities in this process, but also how the failure of peaceful, rights-based resistance can lead to more violent tactics. However, at this stage it is unclear how long the momentum of overt resistance will last. It is entirely possible, for instance, that Batwa communities could be forcibly displaced once again, causing them to revert back to more everyday strategies of resistance in the future.

Second, this article also emphasises the intricacies between slow and sudden violence, and the role that resistance plays in this relationship. Echoing previous scholarship (Brockington and Igoe, 2006; Kabra, 2009; Lasgorceix and Kothari, 2009), I highlight how territorialisation for conservation, which often involves direct acts of physical violence, can give rise to negative consequences for communities living in and around protected areas that last long into the future and build up over time. In conjunction with Cavanagh and Benjaminsen (2015) and Witter and Satterfield, (2019), I consider such consequences as manifestations of Nixon's (2011) slow violence: that is, their effects are incremental, accretive and thus fail to capture outside attention. Consequently, the violence of conservation displacement does not end with the act of displacement itself. Under conditions of slow violence, extreme disparities of power between state conservation authorities and local communities may make it seem that conflict does not exist, when in fact tensions are bubbling under the surface (see also Watts 2013; Galtung 1969). My contribution here, therefore, is to suggest that infrapolitical undercurrents of resistance provide the latent energy through which unaddressed conditions of slow violence can generate 'sudden' outbursts of violence decades after a displacement event. In the absence of an understanding of the material and ideological components of

covert resistance, such outbursts may be misinterpreted as random or surprising, which could prevent effective solutions for peace and environmental protection from being identified.

Third, my findings bring into question more romanticised notions of indigenous people living in perfect harmony with nature 'as the world's best environmental defenders' (Domínguez and Luoma 2020, 6). I do not doubt indigenous communities have played an integral role in protecting ecosystems through customary-based systems of natural resource management (Ostrom, 1990; Gadgil, Berkes and Folke, 1993). Neither do I doubt they have suffered disproportionately as a result of displacement in the name of environmental conservation (Adams and McShane, 1996; Adams and Mulligan, 2003; Dowie, 2011). However, in situations where indigenous peoples have lived outside their traditional lands for long periods of time, they will not necessarily go back to living as their ancestors did. As my analysis shows, the Batwa of Kahuzi-Biega returned to the forests not just to regain control over what they saw as rightfully theirs, but also to accumulate economic wealth through the extraction of the park's resources. This ultimately caused the destruction of hundreds of hectares of forest home to critically endangered gorillas. The Batwa – as well as other indigenous peoples – should not, therefore, be viewed as undifferentiated 'monolithic' blocks. Although the Batwa surrounding Kahuzi-Biega have strong social bonds, considerable heterogeneity exists both within and across groups. Some groups or individuals may be more in favour of conserving their ancestral lands, while others may be more interested in monetizing the resources located within them. Further research should bring out this diversity in order to understand the potential unintended consequences of returning indigenous peoples to protected areas.

My findings should provide cause for hesitation among organisations or commentators promoting the idea that indigenous communities should be allowed to return to live inside protected areas once again. In a fraught and fast-moving political economic environment like eastern DRC, such actions inevitably intersect with wider incentives, elite interests, shadow state networks and extractivist logics in ways that are almost impossible to avoid. Under such conditions, the suffering of indigenous groups may even increase upon returning to their ancestral lands, especially if they do so against the will or laws of state authorities. For communities displaced through practiced of fortress conservation decades ago, a more realistic strategy may be to find a means to ensure the injustices they have endured are both recognised and adequately compensated for. This would necessarily involve the provision of land outside of protected areas, employment and development opportunities to put an end to the conditions of slow violence at the root of their resistance to conservation.

## 9. Conclusion

This chapter has provided an original contribution to the literature on environmental conservation and resistance in the context of conflict. It has shedded light on the intricacies between covert and overt forms of resistance and sudden and slow forms of violence. Specifically, it has demonstrated how although the slow violence following displacements through fortress conservation often goes under the radar of authority figures and international observers, it can generate latent forms of violence concealed within the infrapolitical strategies of subordinate groups. Under certain conditions, this sequestered aggression can be released in sudden bursts of violence, which have the potential to trigger

large-scale social unrest and environmental destruction inside protected areas. As opposed to framing the Batwa's actions in idealised terms, the paper shows how their actions have been influenced and magnified by elite interests, politico-military networks and wider conflict dynamics. As a consequence of understanding of the interconnections between slow and sudden violence and covert and overt resistance, it could be possible to reduce the likelihood of the social unrest and environmental destruction we have seen in Kahuzi-Biega National Park from being repeated in other areas. Such an understanding could be used to inform a contemporary conservation movement that is more environmentally sustainable and socially equitable for future generations of indigenous people living in conflict-afflicted regions.

# CHAPTER 5. AGENCY AND STRUCTURE IN MILITARISED CONSERVATION AND ARMED MOBILISATION AT A VIOLENT FRONTIER

This chapter is a combination of an article in review and Discussion Paper with IOB:

Simpson, F.O., Pellegrini, L. *Forthcoming*. Agency and structure in militarised conservation and armed mobilisation at a violent frontier: evidence from Eastern DRC's Kahuzi-Biega National Park.

Simpson, F.O., Lwaboshi, R., Ikobo, Y., Mulume, P. 2022. *The Structuration of Armed Mobilisation in Eastern DRC's Kahuzi-Biega National Park*. IOB Discussion Paper. Institute of Development Policy, University of Antwerp.


## Abstract

Ongoing debates in conservation studies stress the dire consequences of 'fortress' and 'militarised' conservation at violent frontier regions. Presenting evidence from war-torn eastern DRC's Kahuzi-Biega National Park, I show how the park has become a focal point for armed insurgent groups in the region. Although the militarised enforcement of a fortress conservation area has contributed to at least one major incident of violent resistance in recent years, it plays only a marginal role in defining the structures shaping the actions of armed groups. These structures include the legacies of poverty and insecurity, geographical features of the park, and the presence of illicit trading networks – some of which are reproduced and (occasionally) reshaped by the members of armed groups. This perspective emerges only when zooming out of the park into broader political economy dynamics and contextualizing the park in the history of DRC. These dynamics severely constrain the agency of conservation initiatives that, on the one hand, contribute themselves to re-creating a staging ground for broader conflicts. On the other hand, militarized forms of conservation provide basic law and order at the forest's edge. Ultimately, militarized conservation plays an ambivalent role vis-à-vis security and stability.


## 1. Introduction

Indigenous Batwa people rose up against the eastern DRC's Kahuzi-Biega National Park and forcibly reoccupied their ancestral lands in October 2018. Joint battalions of eco-guards and government soldiers attempted to expel the Batwa from the forest once again. The Batwa fought back. Some of them vowed under no circumstances would they leave the land of their ancestors for the second time. The ensuing conflict has resulted in numerous deaths and injuries and the destruction of hundreds of hectares of forest in the park's highland sector. The story depicts what appears to be a classic case of mobilisation against fortress conservation: a population is displaced from its traditional lands, leading to impoverishment

and marginalisation, which causes that population to resist conservation rule. This resistance is then brutally repressed by park authorities, leading to further conflict. Yet this reading only tells part of the story of armed mobilisation and violence inside the park.

Although fortress conservation and its militarised enforcement were no doubt central to the Batwa's decision to rise against park authorities, they are by no means the only cause of armed group activity inside the park. The majority of the small non-state armed groups that now hide out and illegally extract resources from inside the park are not (principally) motivated by grievances generated by the legacies of coercive conservation both past and present, even if some of their leaders are willing to take advantage of local animosities against the park to gain supporters. To understand these numerous and intractable armed mobilisations, I look at how broader political economic structures have led to a perpetual state of militarisation inside of the park. I understand these dynamics and their violent outcomes as jointly constitutive of social structures shaping constraints and opportunities for individual and organisational agency, including the agency of conservation organisations.

Analytically, I borrow from the theory of structuration by Anthony Giddens (1984). The structuration approach suggests that while people's agency is influenced by the social structures that surround them, those same structures are reproduced by the actions of individual people. I deploy this approach and conceptualize armed group mobilisation as part of the broader political economy in which Kahuzi-Biega National Park is embedded. Of particular significance to my argument is the geography of the park – rich in various minerals, with a harsh topography located at the DRC's national borders, it provides an ideal location for armed groups to hide out and pursue wider ends. This works in conjunction with legacies of insecurity, poverty and illicit networks which link the armed groups engaged in mineral extraction inside the park to powerful Congolese politicians, businessmen and international markets. As per the theory of structuration, I also show how some of these structures are re-created and/or modified by the members of armed groups and how conservation is inserted into these structures. My analysis follows and attempts to provide an empirically grounded answer to the pertinent question 'whether militarised conservation ultimately contributes to rising levels of violence in contexts of armed conflict' (Duffy *et al.*, 2019, 69).

The analysis draws on fieldwork from August 2019 to February 2020 and April to June 2021 in the territories of Kalehe and Kabare, South Kivu province. The data gathered during the first visit and the leads developed, were built upon in the second visit, thus enabling a chronological understanding of armed mobilisations surrounding the park to emerge. The first field visit involved around six months of exploratory ethnographic research on conflicts surrounding the park carried out by myself and local researchers[93] around the park's highland sector. During this period, over one hundred semi-structured interviews and eleven focus groups were carried out to understand the key conflicts surrounding the enforcement of conservation regulations among different groups surrounding the park. Data were also collected using other ethnographic methods, including transect walks and general observations. Chance encounters were a crucial source of information while researching illicit networks 'in the shadows' and some of the most relevant, nuanced data were acquired in

[93] Papy Mulume and Michel Bazika supported the first author with data collection, translation and negotiating access during the first fieldwork.

one-off, spontaneous conversations with people on roads leading up to the park, while eating lunch in small restaurants, or in bars during the evenings. For the second field visit, I worked alongside an assistant and a team of local researchers for one month to conduct semi-structured interviews and focus groups specifically on the factors that influence the mobilisation of non-state armed groups.[94] The team conducted more than fifty semi-structured interviews and thirteen focus groups.

The article proceeds as follows. It begins by providing an overview of the literature on militarised conservation at violent frontiers, and indicates how a structuration approach is useful to understand continual mobilisations of armed groups inside the park. The subsequent section describes the form and effects of conservation in Kahuzi-Biega National Park, with a special focus on the grievances it has generated among local populations. The section after that provides a history of violent conflict and armed mobilisation in the wider region of South Kivu. Next I outline the main social structures giving rise to motivations and opportunities for armed mobilisation inside the park itself. I then provide vignettes of the lives of three people, two armed groups leaders and one potential armed group leader, to show how individual agents reproduce and/or reshape the social structures that give rise to armed mobilisations through time and space. The interactions that occur between the structuration of armed mobilisation and militarised practices of fortress conservation are then considered. I end with a discussion about the implications of the findings and conceptual approach for the broader literature on militarised conservation and armed mobilisation in violent frontier regions.

## 2. Militarised conservation at violent frontiers

Political ecologists have long highlighted how fortress conservation can dispossess local populations of their traditional lands, resources and histories. Earlier assessments frequently paint a dichotomous picture: on the one hand, there are state conservation agencies and international conservation NGOs who dispossess and discipline local communities in order to enforce conservation rules; on the other hand, there are the people marginalised and impoverished through protected area designation and enclosure (Brockington, 2002; Roderick P. Neumann, 2004; Kelly, 2011; Fairhead, Leach and Scoones, 2012; Büscher, 2013). A part of this literature highlights how fortress conservation typically leads to resistance when people adversely affected by conservation regulations rise up against them (Peluso, 1992; Norgrove and Hulme, 2006; Holmes, 2007; Cavanagh and Benjaminsen, 2015).

More recently, political ecologists have turned their attention toward the implementation and effects of militarised conservation, which shows up in the use of military-grade weaponry, technologies and techniques to enforce conservation regulations. Militarised conservation is effectively an intensification of the fortress model dominant during the colonial and mid- to post-colonial periods (Lunstrum, 2014). In a landmark paper on the subject, Lunstrum (2014) shows how the spatiality of South Africa’s Kruger National Park combined with environmentalist discourses and notions of state sovereignty to justify ‘green militarisation’ as a way to tackle commercial rhino poaching. Building on Lunstrum’s work, Büscher and Ramutsindela (2016) introduce the expanded notion of ‘green violence’ to highlight the wide

[94] The team for the second fieldwork included Romain Lwaboshi, Yves Ikobo and Papy Mulume.

range of violent strategies – material, social and discursive – used to respond to the poaching crisis in Southern Africa's peace parks.

The violence of militarised conservation made visible by this line of research was often occurring far from anybody who might provide oversight and control of its excesses. This observation formed the basis for an increasing number of critical accounts. According to Lunstrum (2014, 817), for instance, green militarisation leads to a self-reinforcing 'arms race between poachers and anti-poaching forces' that is difficult to deescalate once in train. Büscher and Ramutsindela (2016) suggest the green violence of conservation threatens the ideals of 'peace parks' to a greater extent than rhino poaching ever could. More recently, Witter (2021) propose militarised conservation is likely to be counter-productive – fuelling resentment, resistance and, importantly, increased poaching. These analyses provide an important push back against the discourses of some pro-conservation activists and NGOs, which have at times contrasted narratives of violent poachers against heroic park rangers (as highlighted by Massé 2019). However, the fieldwork upon which these arguments are based has primarily been conducted in Southern Africa, a region where states maintain relatively hegemonic conditions, at least when compared to eastern DRC.

Another strand in the literature has paid greater attention to cases where militarised conservation is implemented in already profoundly violent regions. In these contexts, militarisation is coherent with the social arenas in which it is carried out. In regions where multiple state and non-state armed actors are already present, the characterization of violence taking place inside protected areas, including against eco-guards, as resistance to conservation has been questioned. For instance, Lombard (2016) proposes the case of militarised conservation in the Central African Republic (CAR) forces us to rethink binary accounts of conservation conflicts with domination on one side and subjection on the other. Instead, the majority of people – including armed conservation guards and rebel groups – living in a region where hierarchies are fundamentally volatile, seek to gain access to sources of income through practices of both 'threatening' and 'hiding'. In Chad and the CAR, Lombard and Tubiana (2020, 6) show how rather than existing separately from the broader social structures shaping the political economy of violence, armed conservation becomes a component of them: 'a part whose importance varies in part as a function of how much the donors fund it, and a part that inextricably includes violent practices.'

Militarised conservation essentially comes to intersect and interact with existing dynamics of armed mobilisation and violence. The primary critique in these contexts, which I will zoom in on, is that militarised conservation tends to intensify and exacerbate conflict. For example, Lombard's (2016) research in CAR shows how militarisation added fuel to the wider 'threat economies' in which conservation was embedded. With data from Virunga National Park, Verweijen and Marijnen (2016) argue that militarised conservation serves to exacerbate armed mobilisation, resistance and unauthorised resource exploitation. Devine *et al* (2020) demonstrate how strict conservation combined with international demand for cocaine and US drug policy in Guatemala's Maya Biosphere Reserve. A political forest was created where narco-cattle ranchers could operate with impunity, in turn accelerating deforestation and violence. In Central America, coercive conservation even provided drug traffickers with opportunities to gain local legitimacy and cement their control (Wrathall *et al.,* 2020).

Other observers have focussed on how militarised conservation can expand the reach of state sovereignty (and coercion) into isolated frontier regions. In this sense, conservation becomes part of wider a 'civilizing' mission that requires the reordering and rationalisation of society and space, territory and population (Scott, 1998). Neumann (2004) has provided insights about the use of conservation in wider state-building projects and how conservation affects understandings of nationhood in Tanzania and the United States. In their classic article on the political ecology of war and forests in Southeast Asia, Peluso and Vandergeest (2011, 587) show how during the Cold War, 'insurgency and counterinsurgency helped normalise political forests as components of the modern nation-state during and in the aftermath of violence.' Several other papers have characterised protected areas as sites of state expansion (Lunstrum, 2013; Massé and Lunstrum, 2016; Dutta, 2020; Woods and Naimark, 2020). In these contexts, conservation can be viewed as either a form of counter-insurgency in and of itself or to blend with a wider range of counterinsurgency strategies.

I present a different take. Protected areas are often rich in economically valuable and relatively 'lootable' resources. They are also ideal hideouts since they are often geographically marginal, scantly populated, rough terrains (Korf, 2011). In effect, the 'friction' (Scott, 2009) of the landscapes created through protected area designation makes them intrinsically difficult to govern from the top-down. In conflict-afflicted regions, the agency of conservation initiatives is also severely constrained by broader dynamics of violence and armed mobilisation that find in protected areas the ideal 'staging grounds' (Gaynor *et al.*, 2016) for broader conflicts to play out. When state control is especially weak and protected areas very large, it becomes very difficult to properly police their boundaries and uphold conservation regulations. Rather than increasing state sovereignty, protected areas could actually fragment government power by maintaining wild and isolated spaces that are conducive to rebellion. Apart from being the only feasible form of enforcement in violent frontier regions, militarized conservation itself is part of and (marginally) reinforces broader political economies of violence. In some instances, it could also positively contribute to security and stability.

The latter point is only infrequently acknowledged, but not entirely new. Kelly and Gupta (2016) show how people living around protected areas in Cameroon can come to consider certain aspects of coercive conservation previously conceived negatively as something to be desired. The population around Garamba National Park in DRC actively looked to conservation as a source of predictability in a region otherwise racked by violence and insecurity (Titeca et al 2020). These interpretations lend support to the idea that the impacts of conservation on dynamics of violence are ambiguous, with heterogenous effects for people living in different geographical, political and historical contexts. My fundamental goal here is to bring out the drivers of non-state armed group mobilisation in war-torn eastern DRC's Kahuzi-Biega National Park and the multifarious impacts of militarised conservation on security – neutral, negative and positive – for people living under its influence. To do so, I start not from the armed eco-guards financed by militarised conservation, but instead from the armed groups that are operating in the area of the park. This serves as an important check against seeing the violence produced by armed eco-guards as exceptional or anomalous.

## 3. Agency and structure in armed mobilisation

In contrast to some accounts which have represented individual agency in relation to structures of militarised conservation as taking the shape of domination/resistance binary (Holmes, 2007; Cavanagh and Benjaminsen, 2015; Witter and Satterfield, 2019; Witter, 2021), I look to the broader political-economic forces that lead to the presence of non-state armed groups and illicit resource extraction inside a fortress conservation area enforced through military-style eco-guards. In this regard, my approach somewhat aligns with Lunstrum et al (2021). Based on research in Mozambique and South Africa, they focussed on how changing aspects of a broader political economy provide an enabling environment in which young men are motivated to enter the risky (though lucrative) illicit rhino trade. The legacy of coercive conservation is part of, though far from the only important component of, these structures.

I take direct inspiration from the theory of structuration developed by Anthony Giddens (1984) in his book, 'The Constitution of Society'. Rather than representing a dualism, comprised of two independent phenomena, Giddens argues the connection between structure and agency should be seen to be as a duality, i.e. comprised of two interdependent phenomena. He concludes that neither agency nor structure should be given primacy since social practices are recursive: 'they are not brought into being by social actors but continually recreated by them via the very means whereby they express themselves *as* actors' (Giddens 1984, 2). The theory of structuration conceptualises the structures as enabling, rather than prohibiting, the actions of knowledgeable human agents (North, 1990). Not some distant, abstract or domineering force, the structures comprise the practical rules, norms, discourses and resources which bring about the chronological ordering of social practices over relatively long expanses of time (Giddens 1984). The structure itself could not exist without the repeated, quotidian actions of multiple knowledgeable human agents.

'Structuration' refers to the conditions leading to the continuity and reproduction or transformation of structures (Giddens, 1984, 25). Routine, which is the main form of day-to-day social action people use to reduce 'unconscious sources of anxiety' and increase 'ontological security' (Giddens 1984, 282), is a keystone to continuity. According to Giddens (1984, 26), 'Through the knowledgeable continuation of routine activities to reduce everyday sources of anxiety and marginalisation, conscious agents unintentionally perpetuate the very sources of the (structural) conditions which serve to reproduce anxiety and marginalisation.' In other words, the actions of individual agents give rise to unintended consequences which reproduce socio-structural conditions and the initial actions (Parker, 2000). Agency refers to the capability of individuals to do things volitionally; thus, it is expressed when an individual could have acted differently (Giddens, 1984: 9). Agency rests on the opportunities afforded by structures, to exercise power including the power to affect structures.

To understand the structural conditions which give rise to armed mobilisation, I also draw on the literature on the causes of civil war (Collier and Hoeffler 2004; 2002). The grievance-conflict hypothesis proposes people rebel over issues of identity, such as ethnicity, religion and social class. The greed-conflict hypothesis proposes that insurrection occurs through people's innate desire to gain access to economic wealth, often in the form of natural resource rents that are the spoils of war. Thus, people perform a cost-benefit analysis to access whether the rewards of joining an armed group are greater than those of not joining:

i.e. 'where a rebellion is financially and militarily feasible it will occur' (Collier, Hoeffler, and Rohner 2009, 1). Combining both of these approaches, I argue the socio-structural conditions in which Kahuzi-Biega National Park is embedded give rise to a continual stream of both grievance (motivations) and greed (opportunities), which enables rebellions to take place. Agents reproduce these structural conditions through the unintended consequences of their actions, generating new motivations as well as opportunities to rebel.

In Kahuzi-Biega National Park, the primary social structures that shape armed mobilisation are the legacies of insecurity and poverty; the geographical features of the park, including its proximity to international borders, mountainous terrain, forest cover and mineral resource abundance; and the presence of illicit or 'shadow state' networks (Reno 1995). The latter enable armed groups to sell minerals on international markets and access weapons. Some of these structural conditions are reproduced, and at times reshaped, by the actions of the members of armed groups. Fortress conservation and its militarised enforcement add fuel to the structuration of armed mobilisation through the violence they bring to the table, producing additional grievances, and more broadly through the normalization of militarization. Over the long term, conservation's contribution to the structuration of armed mobilisation is likely also to include the production of a resource-rich, harsh terrain in which armed groups can hide out and pursue their political and economic agendas. In conjunction with this, the presence of armed eco-guards may contribute to improved security in some areas. The overall impacts of militarised conservation on violence are likely to be mixed.

## 4. Militarised conservation, grievance and resistance in Kahuzi-Biega National Park

Kahuzi-Biega National Park straddles the provinces of South Kivu, North Kivu and Maniema in the east of DRC, covering an area of 6,000 sq.km. One of the three most important protected areas for biodiversity conservation in the Albertine Rift, it is home to a significant population of endangered eastern lowland gorillas. The area is protected exclusively for conservation purposes, scientific research and tourism as opposed to local land uses. It is long been managed through a strict law-enforcement approach that draws on a variety of military techniques and technologies. To many observers, the park epitomizes fortress conservation.

The territorialisation of the park occurred in three stages. In the first stage in 1937, the Belgian Colonial regime created the Zoological and Forest Reserve of Mount Kahuzi intending to protect the park's unique biodiversity (Mutimanwa, 2001). The status of 'nature reserve' meant access to natural resources was restricted though not forbidden. In the second stage starting in 1970, the Congolese government of President Mobutu turned the reserve into a fully-fledged national Park. The change in designation meant local populations would no longer be permitted to live or extract resources within its boundaries. In the third stage in 1975, the government extended the park to include an extensive lowland sector. Around 13,000 people, including groups of indigenous Batwa, were forcibly expelled from inside the park boundaries during the 1970s (Barume, 2000). For decades after the Batwa were expelled, they lived an impoverished life among other Bantu communities at the forest's edge (Isumbisho *et al.*, 2021). They fell victim to cultural and socio-economic discrimination (Lyamahesana, 2013) yet continued to enter the park to gather resources for their survival and, arguably, as a form of covert resistance (Simpson and Geenen, 2021).

The park is managed by the Congolese state conservation agency ICCN, with support from GIZ, WCS and USAID.[95] The German development bank KfW (*Kreditanstalt für Wiederaufbau*) pays more than two hundred park rangers an additional $80 on top of the small state salary of $20 a month. These rangers are equipped with full military uniforms and AK47s to secure the park's perimeter and stop illegal resource extraction within its boundaries. It has been reported that they were trained by Israeli ex-military officers from the Maisha security company (Flummerfelt, 2022). A network of patrol posts surrounds the park boundaries, from which rangers conduct regular patrols. The park's control centre in Tshivanga uses a flat-screen monitor and satellite technology donated by the United States to follow the patrols in real-time.[96] When ICCN eco-guards are tasked with tackling armed actors and illegal settlers inside the park, they have sometimes teamed up with government soldiers. Soldiers from *Mission de l'Organisation des Nations Unies pour la stabilisation en RD Congo* (MONUSCO) have even accompanied patrols in the past. These are the state (or state-like) actors that enact the militarisation of conservation. They can be contrasted with, though at times maintain shadowy links to, the numerous 'rebel' groups operating inside the park boundaries.

The coercive approach deployed in Kahuzi-Biega National Park has resulted in at least one case where people mobilised against park authorities, leading to violent conflict. In October 2018, groups of Batwa forcibly returned to the park's highland sector from which they had been expelled when the reserve was transformed into a national park in 1970. As I argued in the previous chapter, the reasons the Batwa decided to return to their ancestral lands at this specific point were threefold: first, the failure to secure compensation and access rights to their ancestral lands through formal and legal channels; second, an increase in threats to the Batwa's dignity, identity, and livelihoods over recent years; and third, the emergence of opportunities to forge alliances with more powerful actors in a way that consolidated the group's power and allowed it to exploit natural resources for commercial purposes. I take stock of these arguments and put them in the context of broader structural conditions. My objective is to show that although fortress conservation and its militarised enforcement have generated violence and resistance, the agency of most non-state armed groups inside the park is primarily shaped by wider forces. As a result of the sheer concentration of armed actors inside the park, the organisational agency of park managers is severely constrained.

The Batwa's struggle represents perhaps the most obvious example of resistance to militarised conservation in Kahuzi-Biega National Park. However, they are not the only social group with a bone to pick related to the history of conservation. Multiple conflicts continue over the location of park boundaries in various administrative territories that surround the forest. For example, a representative of local civil society on the Kabare side of the park told me how ICCN re-set the limits of the park with GPS technology in 1997, but ended up taking additional land that previously belonged to the population. The population made a formal complaint to ICCN about the issue, but to no avail, fuelling further anger toward the park. Another source of anti-park animosity is created by the destruction of crops by wild animals. I received multiple reports of large mammals – including baboons, gorillas, chimpanzees and

[95] As of April 2022, Kahuzi-Biega National Park is managed through a public-private partnership between WCS and ICCN.
[96] As reported by journalist Simone Schlindwein: https://www.sosmitmensch.at/naturschutz-ohne-menschenrechte

elephants[97] – raiding the fields of local farmers. According to a local chief, the population made multiple requests to ICCN to remove baboons from their land and provide compensation for damage done. But recompense was not provided:

> The other conflict is when animals come from the park to eat our crops. We have no right to push the animal off our land. So we must allow them to harvest our crops for free and do nothing! They give us nothing back in compensation.[98]

Another source of resentment is that the majority of people living around the park receive little economic benefit from conservation. When projects do occur, the benefits are perceived to go to local elites. People's expectations for what the park should provide in terms of compensation for the restrictions imposed by conservation can be divided into two categories: development projects and employment opportunities. Regarding the former, a local representative of civil society implored, 'the local population wants ICCN to lead some projects for them – school buildings, animal breeding, electrification. If they make breeding [projects], we will not take animals from the forest. If they give electricity, we will not take charcoal!' Many respondents also lamented the lack of job opportunities coming from the park. For example, a peasant farmer described how 'NGOs come here but they do not recruit from the local population. They only employ people who have high positions [i.e. elites].'[99]

The human rights abuses committed by some eco-guards have further intensified anger directed toward the park. Even though there are examples to the contrary, eco-guards are only rarely held accountable for incidents of abuse, which further aggravates local resentment. Over the period of research, I recorded accusations of arbitrary arrests, corruption, extra-judicial killings, and even rape. These are apparent in the following quotes:

> Sometimes when we are in our fields, ICCN come and arrest us and take us in jail. We say we did nothing, but they bring us to the jail anyway and then call our families to bring money to let us out. Sometimes we have to pay a lot of money! If it is a little it would be just $100, but it could be even more.[100]

> Even one sister of mine was raped by eco-guards in 2019. She was only a little girl when this happened. She went to go and collect wood in the park. The eco-guards went there wanting to arrest them, saying that they were destroying the park. They tried to run away, but my sister could not run away. She was only 18. When the girl she was with ran away, the guards took her by force.[101]

> An eco-guard and two soldiers were drinking beer in the bar of a gentleman who was a friend of the eco-guard. When they finished, they left without paying for the beer they had consumed. The man who owned the bar followed them to ask for his money;

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[97] Although most elephants fled the park since the proliferation of armed groups within its boundaries during the Congolese wars.
[98] Focus group, territory of Kabare, 21/04/2021.
[99] Focus group, territory of Kabare, 21/04/2021.
[100] Focus group, territory of Kabare, 21/04/2021.
[101] Interview with a peasant farmer, territory of Kabare, 14/04/2021.

> he talked for a long time with these three armed men. In the end, shots were heard. The owner of the bar and another person had been murdered.[102]

Large-scale human rights abuses against the Batwa community have since been identified in a report for Minority Rights Group (Flummerfelt, 2022). While the park authorities question the report's findings, it is clear some egregious incidents of violence have undoubtedly occurred. For this and the reasons discussed above, resentments about how the park is managed are widespread in villages scattered around its boundaries. When accounting for these factors alone, the case of Kahuzi-Biega National Park seemingly fits and vindicates predominant critiques of fortress and militarised conservation. However, a closer look at the history of armed mobilisation in the park and the broader political economy of violence in eastern DRC reveals broader dynamics at play. As I will show, armed groups have a long history in the region and their presence inside the park boundaries can be explained by forces largely unrelated to conservation governance. Overall, the role played by militarised conservation in reproducing violent dynamics is likely to be (relatively) marginal.

## 5. Conservation amidst insurgency

The territories of South and North Kivu surrounding Kahuzi-Biega National Park have been the locus of virtually continual rebellion since the 1990s. In this section, I identify several phases of armed mobilisation in the region. These phases have overlapped with the conservation area, yet remain external to it in terms of their causes. Fundamentally, armed mobilisation and violence in the region are rooted in broader political economic dynamics. The park – a rugged, resource-rich, isolated terrain close to the DRC's international borders – has become the arena in which some of this wider armed activity, conflict and violence unfolds.

The Rwandan genocide (April-July 1994) and the refugee crisis which followed it were the matches that lit the tinder box sparking violent conflict across DRC. The genocide led over a million people to flee for safety in eastern Congo, including between 50,000 and 65,000 soldiers from the ex-Rwandan army and the notorious *Interahamwe* Bahutu youth militia group (Vlassenroot, Mudinga and Hoffman, 2016). A large number of the refugees and militia took shelter in two huge camps next to Lake Kivu at the edge of the park's highland sector. From these camps, the armed militias started to launch cross-border attacks back into Rwanda. In 1996, the new Rwandan regime joined forces with the *Alliance des forces démocratiques pour la libération du Congo-Zaïre* (AFDL) rebel insurgency to disband the camps and ultimately overthrow the moribund regime of Mobutu Sese Seko.

In September 1996, the AFDL coalition launched an offensive into South Kivu from the town of Uvira, triggering what has come to be known as the First Congo War (1996-1997). As its soldiers advanced into Bukavu, thousands of Bahutu refugees and soldiers fled into Kahuzi-Biega National Park in an attempt to escape retribution. Many took refuge inside the park, including members of the ex-Rwandan government and the *Interahamwe* youth militia. The latter eventually went on to form the FDLR rebel movement which had numerous bases in

[102] Interview with village chief, territory of Kabare, 21/04/2021.

the park. These rebels reaped havoc on Congolese civilians living around park boundaries. Looting, kidnapping and banditry became a daily occurrence. A community leader from Bunyakire chiefdom described the scene:

> Some FDLR positions were in Kahuzi-Biega National Park and others at its periphery. They started to attack villages and take the people into the forest. They built shelters and fields inside the park. At that time, no one could approach their camps except the captives who would carry their booty for them. The FDLR really made us suffer.[103]

The First Congo War ended in May 1997 after AFDL successfully overthrew the Mobutu regime. However, hopes for lasting peace were misguided. The Second Congo War kicked off in August 1998 when Kabila tried to oust his onetime Rwandan and Ugandan backers from the country. The war set off another wave of armed mobilisations across eastern Congo, eventually drawing in the armies of nine different African countries and about twenty-five rebel factions. Throughout the war, Kahuzi-Biega National Park was located mostly in the territory of the new *Ressemblement Congolais pour la Démocratie* (RCD) Rwanda-backed rebel government. Other regions of the park were under the control of the FDLR and Congolese local defence or 'Mai Mai' groups. During this period, Mai Mai groups joined forces with the FDLR located in and around Kahuzi-Biega National Park to launch joint operations against RCD. ICCN lost control of the park almost entirely. In 1997, the massive loss of wildlife inside the park lead to its reclassification as a UNESCO World Heritage Site 'in danger'.

The Second Congo War eventually came to an end with the signing of the Sun City Peace Agreement in April 2003. However, tensions had started to emerge between the FDLR and some Mai Mai groups, which had worked together up until that point. FDLR abuses against local populations living around the park boundaries had reached a critical level. A particularly brutal incident took place at the Nduma mine in Kasese, Shabunda territory, at the park's periphery. A group of FDLR had controlled Nduma along with other artisanal mining sites in the area for several years. For reasons unclear, FDLR soldiers killed 36 people at Nduma in January 2010. They reportedly forced their victims to eat cassiterite before burying them alive (Stearns, 2013). Brutal events like this ultimately drove another wave of armed mobilisations across the territories which surround the park.

In response to the FDLR a new rebel movement emerged in Shabunda known as the Raia Mutomboki (translated as 'Outraged Citizens') in 2011. It's leaders wanted to chase the FDLR from eastern DRC entirely. A resident of Bunyakire described the movement's genesis:

> The young and old created a new movement in coalition with the population of Shabunda to wage war against the FDLR. All FDLR strongholds in Bunyakiri and Shabunda were destroyed. They fled to North Kivu, the forests of Kahuzi Biega National Park and several villages of Congolese Hutu in Kalehe.[104]

The Raia Mutomboki initially enjoyed considerable local support. Youths and army deserters joined its ranks, often with the blessing of customary chiefs (Stearns 2013). Although the movement is nowhere near as powerful as it once was, several commanders remain at large

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[103] Interview with community leader, Bunyakire, Kalehe territory, 06/05/2021.
[104] Interview with local chief , Kalehe territory, 06/05/2021.

in and around the park. Up to this day, fighting between Raia Mutomboki factions associated with the Batembo community and different Bahutu groups[105] also erupts from time to time. This violence has at points surrounded gold mining sites inside the park's highland sector near the village of Katasomwa. In April 2021, the fighting spilled out of the park into neighbouring villages sparking brutal violence between armed factions of the Bahutu and Batembo groups.

Another round of armed mobilisations followed the return of the Batwa in October 2018. Once inside the park, Batwa groups were able to access weapons in order to secure their newly acquired territory. Some of them formed temporary alliances with other non-state armed actors operating in the park's vicinity. The resource frontier they opened up generated new opportunities for a variety of actors to profit from the park's resources. Several armed groups established mining operations inside the park around this time. The Batwa themselves allowed people living around the park to enter the forest and gather resources in exchange for a share of the loot. This has caused the destruction of hundreds of hectares of forest in the park's highland sector. Clashes between the Batwa and joint units of eco-guards and government soldiers have been numerous, which according to some reports have led to the deaths of over twenty Batwa, several eco-guards and FARDC soldiers (see Flummerfelt, 2022). Other clashes pitted non-state armed groups against joint units of eco-guards and FARDC.

The case of the Batwa is the only significant case of armed resistance explicitly directed toward exclusionary militarised conservation practices over recent years. However, even this cannot be entirely attributed to resistance against conservation regulations. As laid out in the previous chapter, the Batwa were able to reoccupy the park partly as a result of the alliances they formed with more powerful actors, with much broader political economic interests. The agency of the majority of armed groups operating around the park's highland sector is not shaped by any desire to oppose conservation, but by the wider structural context in which the park is embedded. In the following section, I explore some of the key structural dynamics which generate a combination of motivations and opportunities for people to rebel.

## 6. Socio-structural drivers of armed mobilisation

There are several enduring features of the social structures in which Kahuzi-Biega National Park is embedded that have perpetuated armed mobilisations across time and space. These features can help to explain why the park has become the staging ground for wider dynamics of conflict and violence. The mobilisation of armed groups typically follow a circular pattern whereby every time a group is disbanded or defeated another comes to take its place, often pulling in members of old groups that have ceased to exist (see also Vlassenroot, Mudinga, and Musamba 2020). Next I focus on two interlocking aspects of the social structure that make insurgent activity intractable: namely, 'motivations' and 'opportunities' that stimulate the formation of – as well as collaboration with – armed groups.[106]

[105] These include Nyatura and FDLR groups. Here it is significant to note that the branch of FDLR in South Kivu has now changed its name to the CNRD.
[106] Motivation is used as a synonym for what the conflict literature usually refers to as 'grievance', while opportunity is usually referred to as 'greed' (Collier and Hoeffler, 2004).

*6.1. Factors motivating armed mobilisation*

The first enduring feature of the social structure that motivates armed mobilisations around Kahuzi-Biega National Park is the legacy of insecurity itself. This has led to a profusion of multidimensional grievances among people living at the edge of the forest. Insecurity has also generated a demand for protection which armed groups capitalise on to gain legitimacy and recruits. As elaborated on in the previous section, the villages and towns surrounding the forests of Kahuzi-Biega have been ravaged by conflict since the Rwandan genocide and the advent of the Congo Wars in the 1990s. This has led to the dizzying number of rebel groups and factions that operate inside the park today. For decades, successive governments have failed to provide security for the population. As a result, numerous houses and farms have been abandoned at the edge of the forest where the threat of looting is highest.

In the words of one village chief,

> I can confirm that the park is a deep source of insecurity here in our village but also in all the surrounding villages. This is because, first of all, being a forest, the park serves as a hiding place for many armed groups and other people of bad faith. And at any moment, these rebels hiding in the park can appear and attack us.[107]

In the groupement of Irhambi-Katana, local civil society frequently requests for the government military to demobilise the armed groups and secure villages. Yet when soldiers are provided, they are poorly trained, and incapable of confronting the armed groups. At the same time, the soldiers occasionally demand 'contributions' from the local population. In the first half of 2021, a group of government soldiers imposed an illicit tax on charcoal extracted by Bantu peasants working with a Batwa community inside the park. Members of the national army are even reported to have collaborated with the armed groups to profit from the park's mineral resources. When the army has successfully demobilised armed groups, new groups emerge to replace the old, often drawing in members of the previous groups. Limited protection, rumours of collusion and the circular return of armed groups combine to generate widespread dissatisfaction with the state.

One-way people living around the park and in eastern DRC more broadly deal with pervasive insecurity is by obtaining the protection of armed patrons (Verweijen, 2018). Although the patrons themselves often pose very real security threats to civilian populations, they at least ensure a semblance of stability, which can sometimes generate strong local support. Around Kahuzi-Biega National Park, these protection relationships are often structured across ethnic lines. For instance, when a conflict over access to the park's gold-mining sites contributed to a flare-up of violence between the Bahutu and Batembo social groups, civilian populations looked to armed groups affiliated with their particular community for protection.

A second enduring structural feature creating motivations to mobilise is the lack of job opportunities and widespread poverty. When asked what are the key economic challenges living at the forest's edge, people frequently cited food insecurity, unemployment, the lack of agricultural extension services, scarcity of firewood, limited education and substandard

[107] Interview with the peasant farmer, Kabare territory, 21/04/2021.

healthcare. These are challenges faced by almost all communities living in the rural parts of eastern Congo. However, they are likely exacerbated by pervasive insecurity at the edge of Kahuzi-Biega National Park. Alongside insecurity, the condition of economic scarcity provides additional incentives to form and cooperate with armed groups in order to access opportunities for income generation, often through the illegal exploitation of park resources.

When asked why people join armed groups inside the park, respondents often pointed to economic factors. The leader of a small armed group in the park's highland sector said, 'First of all it is poverty and unemployment, and therefore, economic reasons.'[108] A customary chief made similar statement: 'When delinquents [young people without jobs] hear that there is a rebellion somewhere, they jump in without questioning.'[109] Existing criminals are reported to have joined armed groups inside the park looking for livelihood security and meaning where few other opportunities exist. Former rebels disappointed by the conditions of demobilisation have also rejoined armed groups in search of income and social status:

> 'There are many young people demobilised [from non-state armed groups] in Katana who have not received socio-economic reintegration kits. These kits were promised but never delivered. These young people represent a security risk.'[110]

Effective conservation enforcement has maintained a resource abundant landscape in a region where few options exist for development, gainful employment or income. The paucity of wider opportunities is what drives illegal resource uses inside the park which, in an already heavily militarised landscape, shapes motivations to collaborate and form armed groups as a way to access and benefit from those resources. Although some people blame the park management for their desperate socio-economic situation, many others see this as the wider responsibility of the state and not a direct consequence of strict conservation enforcement. The below statement, from a chief of village in Kabare territory, lends support to this reading:

> The government does nothing for the youth and our rural areas are underdeveloped. Almost all the government's responsibilities – the rehabilitation of roads, bridges, hospitals, the provision of markets – are carried out by NGOs. How can you expect the park to be protected when the government is sitting on its hands? The insecurity in and around the park is a consequence of the poor management of public affairs by the Congolese state.[111]

### *6.2. Opportunities enabling armed mobilisation*

People would not be able to act upon their motivations to join insurgent groups if it was not for the opportunities that make armed mobilisation possible. Socio-structural conditions providing opportunities to mobilise are twofold. First, geographical features of the park make it an ideal hiding place for insurgent groups and an abundant source of 'lootable' biotic and abiotic resources that help to finance rebel activity. This is compounded by the park's location

[108] Interview with leader of armed group, Kalehe territory, 02/06/2021.
[109] Interview with village chief, Kabare territory, 15/04/2021.
[110] Interview with customary chief, Kabare territory, April 2021.
[111] Interview with village chief, Kabare territory, 14/04/2021.

close to the DRC's international border with Rwanda, where large movements of refugees and combatants have taken place over the past three decades. Second, entrenched illicit networks offer insurgent groups a way to access weapons and links to wider markets from which they can sell resources extracted from the park.

By maintaining relatively high levels of tree cover inside the park, the very act of conservation enclosure creates an attractive landscape for armed groups to hide out. The trees themselves provide shelter and the rough mountainous terrain, particularly in the park's highland sector close to Bukavu, means the park is difficult for conservation guards and the state military to patrol and manage. For example, a member of an armed group working at the edge of the park in the territory of Kabare described how, 'Kahuzi Biega National Park represents a perfect hideout and a source of income. When you enter this park, nobody can see you or catch you.'[112] In turn, a customary chief in the territory of Kalehe said, 'Kahuzi-Biega National Park is so large, yet its leaders do not have enough eco-guards to monitor it. The armed groups are aware of this and that is why there are so many of them inside [the park].'[113] Located close to the DRC's international border, the park has become an attractive refuge for Rwandan rebels. This occurred most dramatically in the aftermath of the Rwandan genocide when the Interahamwe militia (later named FDLR) entered its forests. More recently, in December 2019, the government military conducted operations in Kalehe territory against the CNRD rebel group. To evade capture, the rebels fled into the park's highland sector. They were later chased out of the park and some moved into the nearby Itombwe Nature Reserve.

The park is a relatively unexploited landscape, abundant in economic opportunities, in a region racked by insecurity and poverty. Its mineral resources are located close to the surface, often in streams such as the Nyaweza River gold-mining site, and accessible using low-tech methods of extraction and processing. They can therefore be considered what is described as 'lootable' in the literature on natural resources and violent conflict (see Lujala, Gleditsch, and Gilmore 2005). The Belgium company MGL had been mining in the area of the park since the 1920s. However, armed group involvement in mineral extraction became ubiquitous throughout Kahuzi-Biega National Park during the Second Congo War and, perhaps even more importantly, with the global coltan boom of the 2000s. There were estimated to have been about 12,000 miners operating illegally inside its boundaries at the boom's peak (D'Souza 2003, 11). Temporary trading posts sprung up all around its borders during this period. The frequency of road and air travel dramatically increased between Bukavu and the territories of Walikale, Shabunda and Kalehe. The frenetic coltan boom is now over. But cassiterite mines have now appeared across the park's lowland sector, with a particular concentration around the town of Itebero. Numerous gold-mining sites have also emerged across the park's highland sector, especially in the Kalehe region close to the village of Katasomwa.

Multiple non-state armed groups contest the park's mining territories. People who wish to gain control of the park's mines typically must either be armed themselves or work under the protection of armed actors. A miner in the village of Bitale described his experience while kidnapped by a Hutu armed group that was mining inside the Park: 'To keep the operation safe, they had armed guards around the outside [of the mine] – one group was mining and

[112] Interview with member armed group, Kabare territory, 11/05/2021.
[113] Interview with peasant farmer, Kalehe territory, 27/04/2021.

another was keeping protection.'[114] Over recent years, at least three famous rebel leaders[115] have lost their lives while battling over the mining sites. People are willing to take the risk of working with armed groups in the park to access to the profits of mining. A village chief in the territory of Kabare described how, 'They [the local population] can get as much money in one-day mining gold as they would get in a month outside of the park.'[116] It is this combination of forest cover, relative isolation, proximity to international borders, and high-value resource abundance that make the park such an attractive place for armed groups to operate.

The second structural condition providing opportunities for armed mobilisation is the presence of 'shadow state' networks (Reno 1995). Such networks link armed groups to state and business actors. They effectively blurr the boundaries between legal/illegal, state/non-state, and civilian/military (Bayart, 2009). They 'are marked by personalized power relations and generally encompass both state and non-state actors, and both soldiers and civilians' (Verweijen 2018, 288). In Kahuzi-Biega National Park, multifarious entanglements between armed groups, powerful politicians, military officers and businessmen in the urban centres of Bukavu and Goma enable the sale of minerals resources extracted within park boundaries. They also permit armed groups to access weapons in order to continue their activities within the park. The fact that the park is located close to the DRC's borders with Rwanda and Burundi further enables the smuggling of the park's mineral resources onto international markets. Like intractable conditions of insecurity, shadow state networks have become engrained to the extent that they are an enduring socio-structural feature of eastern DRC.

In my interviews with various armed group leaders, I was repeatedly told about 'Big Men' in the government or military who facilitate the trade in minerals from the park and provide weapons to armed groups on the ground. For example, one rebel chief described how, 'We are working with other rebel groups and some people from the government. We sell our minerals to people in Bukavu and others from Goma.'[117] It is well-known that politicians in eastern DRC often led their support to armed groups as a way to enhance their negotiating position and advance their own political economic agendas. For example, a representative of civil society in the town of Kalehe Centre in Kalehe territory, described how 'The involvement of notables at the national and provincial level is suspected. Politicians like to manipulate people to position themselves for their own selfish interests.'[118] Shadow state actors also appear to alert armed groups of incoming attacks by ICCN or FARDC soldiers before they take place, thus enabling the armed groups to take refuge in other areas. According to a miner working at a validated cassiterite mine outside the park in the village of Bitale, 'It is as if there is a kind of communication between ICCN eco-guards, government soldiers and the armed groups. That is why the armed groups know when they are coming to attack them.'[119]

Various mineral traceability initiatives have been implemented in eastern DRC (Geenen and Radley, 2013). These are designed to stop the illegal extraction and trade of minerals that contribute to the reproduction of regional conflict – as well as mining in illegal areas, such as

[114] Interview with artisanal miner, Kalehe territory, 29 August 2019.
[115] Namely: Cisayura, Nduhuye and Maribita.
[116] Interview with peasant farmer, Kabare territory, April 2021.
[117] Interview with leader of small armed group, Kalehe, November 2019.
[118] Interview with member of civil society, Kalehe territory, 01/05/2021.
[119] Interview with artisanal miner, Kalehe territory, August 2019.

inside national parks. However, shadow state networks ensure minerals extracted from inside the park can still get into legal, certified supply chains. For instance, according to Kirkby et al (2015:8), 'Mines in Lulingu and Nzovu villages on the edge of the park are often understood as extracting coltan from outside the park. Conversely, it is well known that it is actually being extracted from within.' The blended minerals are sold to trading houses in Bukavu and Goma, which then often transport them to neighbouring countries before exporting them onto international markets via Tanzania, Burundi and Rwanda. Once illegally mined minerals from within Kahuzi-Biega National Park enter validated supply chains, there is virtually no way to differentiate them from legal minerals extracted outside of the park.

## 7. Individual agency and armed mobilisation

Armed mobilisation is created through the interplay of larger socio-structural forces and the actions of individual agents. Of particular importance to my analysis is Maclure and Denov's (2006, 132) observation that 'while the process of becoming a…soldier involved a circular dynamic between agency and structure, it also revealed the differentiated and individualized ways in which this duality was played out.' To demonstrate the differentiated and individualised nature of armed mobilisations around Kahuzi-Biega National Park, I offer short vignettes of the lives of two rebel leaders who were powerful players in the park's highland sector over recent years. I also recount the story of one potential rebel leader who has so far resisted the call to arms. Their stories demonstrate how the creative choices of individual agents can serve to either reproduce, in the case of the former two leaders, or reshape, in the case of the latter leader, the larger socio-structural conditions which cause people to form and join armed groups. In none of these cases is militarised conservation a key factor in shaping the agency of armed groups. However, some of these rebel leaders have appropriated wider struggles and resistance narratives, including through association with members of the Batwa community, to further their interests.

### *7.1. 'Cisayura': the local defence leader*

Born in the locality of Kasheke in the territory of Kalehe, Bienvenu Cisayura created an armed group in 1997 to defend the local population living on the periphery of the park during a period of regional instability. By that time, large numbers of FDLR rebels had taken refuge within Kahuzi-Biega National Park and started to loot the local population for food and other resources.[120] Cisayura described how his own family was affected:

> The Interahamwe [FDLR] made life difficult in our villages. I remember the time when these people invaded our village. My grandparents, my parents, my little brothers and sisters were all killed. That is why I have been in the forest up until today. The government has failed to secure the people and that is why I am a rebel.[121]

[120] Interview with Héretier (Cisayura's son), Kalehe territory, June 2020.
[121] Interview with Bienvenu Cisayura, Kalehe territory, October 2019.

By this point, the FDLR had formed an alliance with some of the Mai Mai in Bunyakire against the Rwanda-backed RCD rebel movement. As a way to counter this coalition of groups, the RCD provided Cisayura and several other local defence leaders on the lakeside of Kahuzi-Biega National Park with finance, weapons and training. On occasion, the RCD and Cisayura's group worked together to attack FDLR and Mai Mai positions inside the park. Cisayura was able to protect his community with the support he received from RCD. This strengthened his legitimacy among people living in the area. He essentially came to fulfil what would normally be the role of a functioning army or police force. Up until today, the population in many villages between the park and Lake Kivu still revere Cisayura for his time working as a leader of the local defence. According to a local chief of groupement, 'The local population loved him. When he was defending us, we could sleep without worrying.'[122]

However, Cisayura eventually became disillusioned with the RCD. The RCD soldiers had over time started to harass the local population and provided only minimal financial compensation to the members of local defence groups it was supporting. I was frequently recounted stories about how RCD would force people to carry things for them between different locations. Rather than playing a protective or stabilising role, the movement eventually came to be viewed as  a dominating, repressive and violent force by many of the people who had once worked alongside it. Cisayura decided to defect from the RCD alliance and start his own Mai Mai group along with other disaffected youths from the area. His group joined forces with another group under the leadership of Muhindu Changoco from Mubugu groupement to form the 'Mai Mai Kalehe', which aimed to counter the influence and power of RCD in the region.

Cisayura's armed group was demobilised after the end of the Second Congo War and the signing of the Sun City Peace Agreement in 2003. Although he was no longer a soldier, many people living in the Kalehe area were still afraid of him. A key informant described how, 'Once he [Cisayura] returned to civilian life, the population were afraid of him because he had handled weapons. So he was recruited into the regular army.[123] For several years Cisayura worked as a soldier with FARDC in Kisangani and in Equateur province, but did not receive a high rank because he had not studied beyond primary school. He was poorly paid and lacked the status he had enjoyed as a leader in the local defence. He was eventually presented with an opportunity to demobilise and the government payed for him to retrain as a carpenter:

> I had a deal with the government. They asked me to go to join a carpentry training course. Imagine a gentleman like me who has already drunk and eaten goat meat. Is it possible to go into carpentry? But I agreed and honoured the government's request.[124]

But Cisayura quickly became dissatisfied with this offer too. He left carpentry and took up work as a moto driver in Kalehe Centre. While living as a civilian, he did not command the respect, power and prestige he had once enjoyed as a local defence leader and Mai Mai chief. A lack of alternatives ultimately lead him to reform his armed group. Over the following years, Cisayura would demobilise and remobilise numerous times. Although at first he aimed to protect the local population from external threats, his later mobilisations focussed more on

[122] Interview with an acting chief of groupement, Kabare territory, April 2021.
[123] Interview with Heretier, Kalehe territory, June 2020.
[124] Interview with key informant, Kalehe territory, October 2019.

revenue generating activities, which eventually included the extraction of minerals and other resources from inside the park. His soldiers also started to loot people living at the edge of the forest. These events paradoxically served to reproduce the very conditions of insecurity Cisayura had first mobilised to protect people from. A businesswoman from the village of Kabamba described how the group's behaviour shifted over time:

> Cisayura was good in the beginning. He truly fought FDLR in the region. We could breathe thanks to him. He was a formidable defender of the community. He would not loot us. But his militiamen started to go and loot villages. He would send his men to loot. He would then intervene as a saviour in the victimised villages and return with the looted goods to show the people that he was there for them.[125]

At the same time the Batwa reoccupied parts of the park's highland sector, Cisayura remobilised his group, for what would be the last time. He established numerous gold mining operations in the park. More than two hundred young men are reported to have joined him. According to a local chief, 'Cisayura had different groups of people that mine gold for him inside the park. He took young people from different villages. As there was no money, jobless people were willing to go with him!'[126] Cisayura reportedly formed an alliance with a Batwa group to stop ICCN from conducting patrols in the Kalehe side of the park's highland sector. On 02 August 2018, the two groups are reported to have attacked ICCN's patrol post in Lemera. [127] They chased the eco-guards from the area and killed one in the process.[128] This event provoked a further influx of armed groups into the park's highland sector to profit from what was increasingly becoming a wide-open resource frontier.

Numerous civilians and even state agents worked with Cisayura in a clandestine fashion. Two teachers described how they would enter the park to buy gold from him, which they sold at trading houses in Bukavu. 'As a teacher, I earn just $145 per month. I can earn $60 every time I go to the park to buy minerals!' Businessmen, military officers and politicians from Goma and Bukavu are also reported to maintain commercial relationships with the rebel chief. A case in point is that of Colonel Charles Bizimwami. Charles and Cisayura had been classmates in Mabingu village at the edge of the forest and were both in the local defence force of Kalehe. They joined FARDC after having been demobilised. But when Cisayura left FARDC and reformed his armed group, Charles remained in the government military. When Cisayura returned to the park in 2018, Charles became the main supplier of weapons to Cisayura in exchange for a cut of the resources he extracted from the park.

In sum: Cisayura's agency in armed mobilisation was shaped not by militarised conservation, but by broader dynamics of insecurity, poverty, and economic opportunity. The park is the arena in which many of his conflicts with the national army and other non-state armed groups played out. Later on, the park's geographical features, including its abundant mineral resources, provided further incentives for Cisayura to mobilise. Cisayura is also said to have briefly collaborated with at least one Batwa group inside the park to secure territory and resources. As a consequence of his re-mobilisations, Cisayura served to re-create insecurity,

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[125] Interview with businesswoman, Kalehe territory, September 2019.
[126] Interview with village chief, Kabare territory, April 2021.
[127] This version of events has since been questioned in a report for Minority Rights Group (Flummerfelt 2022).
[128] This patrol post remains abandoned at the time of writing.

poverty and opportunities for income generation through the illicit mineral trade from the park. Under these conditions, the agency of conservation initiatives is severely limited and militarized conservation becomes the only feasible form of enforcement.

*7.2. 'Chance': the opportunist*

Social structures also provide incentives for counter-mobilisations as different rebel leaders vie for control of the park's minerals. On the night of 18 October 2018, after about two decades spent hopping in and out of the bush, Cisayura was killed by a rival armed group under the leadership of 'Chance Mihonya'.

Cisayura attempted to stop Chance from mining gold in the weeks before his death. In order to take control of several mining sites inside the park, Chance is reported to have bribed Cisayura's body guard to shoot his boss while he was eating dinner. The body guard asked Cisayura if he could take his rifle while he was drinking water – which would disable the rebel leader's protective charms – and then shot him. Cisayura tried to reach for restorative herbs in his bedroom. But it was too late, he died. The bodyguard fled the scene. Cisayura's soldiers quickly took his body to Kalehe so Chance's soldiers would not defile it for black magic.

In the following days, fighting broke out between soldiers from the two armed groups. Gunshots could be heard in villages at the edge of the forest. According to a local source, 'people could no longer sleep in their houses.' They hid in their fields at night or moved away from their dwelling places to the security of more populated centres in Kabamba or Katana. Once again, they had been swept up in wider dynamics of violence and insecurity around Kahuzi-Biega National Park over which they have little control. One of the inadvertent consequences of armed mobilisation is their further impoverishment and marginalisation.

Chance had a long history of arms-carrying work that dates back to the First Congo War. At the age of 16, he was recruited as a 'Kadogo' (child soldier) in the AFDL rebellion against the regime of President Mobutu. After that, he fought for two weeks in Congo Brazzaville to defend President Denis Sassou-Nguesso from a rebel advance in 1997. That same year, he also fought alongside the Angolan military against the rebel army of Jonas Savimbi. During the Second Congo War he fought against the RCD, a politico-military movement which controlled the east of Congo at the time. He eventually joined the government army after the signing of the Sun City Peace Agreement in 2003. Later on, Chance fought against the warlord Laurent Nkunda's *Congrès national pour la défense du peuple* (CNDP) and later against the FDLR during the government's Kimia 2 operations.

Chance was promoted to the rank of 'Captain' in 2011 and assigned to the town of Nyabibwe in Kalehe territory. He commanded over one hundred soldiers. However, Chance deserted the army in 2017 after being accused of raping a young girl. He fled to Bunyakire where he reportedly joined an armed Mai Mai group led by his uncle, a famous rebel in the region named 'Shabani'. When Chance learned the Batwa had returned to the park in 2018, he saw an opportunity to improve his own economic conditions. He decided to separate from Shabani and create his own group. He established his headquarters in Cirehe, a small village on the outskirts of Kahuzi-Biega National Park's highland sector in Kabare territory.

Unlike Cisayura, Chance was a Mutembo from Bunyakire. He did not originate from the region in which he started his rebellion. In order to justify his presence inside the park, he claimed to be a Mutwa[129] defending the rights of his family who had been expelled from the park in the 1970s – a claim widely rebutted by Batwa chiefs. In reality, Chance also fought against the Batwa group that had been working with Cisayura on the Kalele side of the highland sector. Thus, the Batwa inside the park were not only victim to the violence of militarised conservation, but also that produced by other non-state armed groups with whom they were occasionally in conflict. Chance's group is the only group identified during the course of research (other than the Batwa) to use a narrative of resistance to conservation in order to justify its actions. However, his main objectives were primarily of an economic nature.

Chance exploited the park's minerals, timber and produced charcoal with members of Shabani's group, demobilised soldiers, and unemployed young men from the village of Cirehe. He was able to accumulate wealth and shore up his power position through these activities. In the words of a local chief, 'Chance stayed in the park with his militiamen from where he was the law. He got very rich by exploiting the gold that he mined in the Nyaweza river, making charcoal and the sawing of wooden planks.' Another local chief highlighted the opportunity this presented to jobless young men: 'He recruited young people by promising them work and wonders. As there were many unemployed people in our villages, he promised jobs to many young people who approached him.'[130]

Chance asserted control over part of the park's highland sector through intimidation and coercion. He dug a hole in the park where he imprisoned and tortured anyone he believed to have spoken ill of him, including one of ICCN's eco-guards. He released people from the hole only after they gave him $100 and a crate of beer. While Chance was present, hundreds of people abandoned their farms and homes at the edge of the forest to seek refuge in the town of Katana, where the state military has a greater presence. However, Chance not only perpetuated insecurity at the forest's edge: some people enjoyed his favour. He offered protection to people who submitted to his rule and a way to access park resources. Some former members of his group expressed strong support for this rebel chief:

> We called him Papa Chance. We were like his children. He managed to reduce the prevalence and movement of thieves in the area. Some people even referred legal cases to him. He restored the rights of the inhabitants. He protected our villages against other armed groups and bandits who attacked and pillaged our community.[131]

Of course, such glowing praise could also be explained by the fact people remained afraid to speak Chance's name in vein even after his arrest. However, the period of relative security and access to the park's resources which Chance provided to some of those who accepted his authority are also likely to have produced a degree of local support.

Chance was eventually arrested in a joint operation between FARDC and ICCN eco-guards in May 2020. A Batwa chief with whom Chance was in conflict provided FARDC with the

[129] Mutwa is singular for Batwa (which is plural) in Swahili. Mutembo is singular for Batembo (plural).
[130] Interview with customary chief, Kabare territory, 13/04/2021.
[131] Interview with peasant farmer, Kabare territory, April 2021.

information that eventually led to his capture. Where advantageous to them, the resistors of fortress conservation can also collaborate with the actors that enforce it. Chance was incarcerated in Bukavu Central Prison for over a year and eventually given a life sentence by the Military Court of South Kivu on 21 September 2021. He was charged with crimes against humanity including murder, rape, the recruitment of child soldiers, and the destruction of a protected area. Chance's supposed accomplice, a major from FARDC suspected of facilitating the transfer of weapons to the armed group, was acquitted for lack of sufficient evidence.

The forces shaping Chance's decision to form an armed group inside the park were related though distinct from militarised conservation. It was only when the Batwa reoccupied the park's highland sector that Chance took advantage of the opportunity to form his own armed group and begin mining operations in the park. This vignette of his life demonstrates a case where wider incentives for armed mobilisation interact with genuine resistance to the legacy of displacement through fortress conservation. The fact Chance was not a Batwa, but still piggybacked on their struggle for his own private ends, further muddies simple explanation.

### *7.3. 'Héretier': the reluctant rebel*

Following the death of Cisayura and the arrest of Chance, it could have been expected that peace would once again return to villages at the edge of the park's highland sector. However, both the social structures and the individual agents that lead to the mobilisation of armed groups were still in place. A chief of groupement described how, 'All the armed group leaders were arrested, but their militiamen remained with their weapons.'[132] Indeed, with reports of unknown armed group now operating in the villages where both Chance and Cisayura used to operate, it appears this void was already being filled at the time of writing.

The story of Héretier, Cisayura's son, illustrates how individual actors can sometimes prevent new waves of armed mobilisation through their agency. Cisayura had many children and his family struggled to cope after his death. Héretier lamented: 'We ate badly, we studied in difficult conditions, we lacked everything.'[133] When Cisayura died, Héretier was expected to lead his father's armed movement. 'In our culture, when the father dies, the eldest son should take over.' But Héretier was hesitant to adopt his father's role. He understood he could earn money mining in the park as a rebel. He also saw how this could help alleviate his family's financial problems. But he also knew how difficult and dangerous the life of a soldier could be. Given all the time and effort he had put into his studies (partially funded by his father's activities), this was not the future he wanted for himself or his family. He wanted the life of a civilian, not a soldier. To begin with, the government military told Héretier they would give him a job so that he would not follow in his father's footsteps. But almost a year and a half later, no job materialised. Héretier eventually contacted one of Cisayura's former collaborators in FARDC to see if this man could find him work. However, the man pushed Héretier to lead his father's movement: 'To my surprise, he suggested I join the militia!'

[132] Interview with chief of groupement, Kabare territory, 04/14/2021.
[133] Interview with Héretier Cisayura, Kalehe territory, 16/04/2021.

Héretier remains unemployed and struggles to make ends meet. To put it bluntly, his life is a far cry from that of his father – a man who was once feared and loathed, but also respected and loved. As a result, Héretier is now reconsidering whether or not to remobilise his father's group. 'When I get tired of my living conditions, I will step out of my comfort zone and join the movement. But I'm still looking for alternative ways to make a living.'[134] For the time being, this reluctant rebel remains a civilian. By resisting the call to arms when faced with external pressure, Héretier is inadvertently reshaping the conditions in which armed mobilisation occurs. The question is, for how long will he use his agency to do so?

## 8. Militarised conservation and violence: ambivalent relations

The previous section demonstrated how enduring social structures which perpetuate armed mobilisation are reproduced (occasionally reshaped) through the actions of individual agents and the unintended consequences of their actions. The three vignettes represent cases where structuration is conducive to the continuity of social structures based on armed mobilization. These dynamics exist broadly independent from militarised conservation, although to a limited extent militarised conservation both influences and is influenced by them. They are exemplified by the three stories I have just introduced. The notable exception is the role played by eco-guards in Chance's arrest, which will probably not structurally diminish the armed mobilisation dynamics but is unlikely to contribute to them systemically.

Now will I access the effects of militarised conservation on the structuration of armed mobilisation and violence in the park. As highlighted earlier on, the livelihood restrictions imposed by an exclusionary conservation model frequently lead to grievances among people living in the vicinity of protected areas. These grievances to a degree shape human agency by producing defiance and resistance to conservation rule. In some instances, this could add to the motivations for armed mobilisation generated through the wider social structure within which the park is embedded. For example, by motivating people to form or collaborate with armed groups as a way to take revenge against conservation-related injustices. The following ultimatum issued by a focus group participant supports this interpretation:

> If the park does not meet our needs, we will tell our young children to avenge their fathers who had their lands taken forcefully. We need to train our children that the park is for their benefit; but if this situation continues, we will send our children into the rebellion to fight the eco-guards![135]

Some people also collaborate with armed groups to gain access to land and resources within park borders. For example, one Batwa group would unlikely have so successfully reoccupied parts of the highland sector if it had not formed an alliance with an armed group. The leader of this armed group had no axe to grind against conservation, but wanted to use the park as a source of forest cover and valuable mineral resources. Some non-Batwa people also seek protection from armed groups in order to collect charcoal, timber and minerals inside the park. This unintended consequence of the continuation of militarised conservation could be

[134] Interview with Héretier Cisayura, Kalehe territory, 16/04/2021.
[135] Focus group, Lwiro village, Kabare territory, 21/04/2021.

considered a factor contributing to insecurity in the region. In turn, the actors which enforce militarised conservation produce violence of their own. It was the Batwa who forcefully returned to the park. However, it was when joint units of eco-guards and FARDC soldiers confronted them inside the forest that the recent conflict really kicked off. A report commissioned by the NGO MRG documents several attempts to expel the Batwa from the forest since 2018 (Flummerfelt, 2022). The abuses committed by eco-guards and government soldiers against the Batwa during the expulsion campaign are shocking.

The violence is certainly reprehensible. However, it is coherent with the wider structural context in which the park is located, rather than something that is exceptional or can be blamed directly on militarised conservation. The duality between agency and structure shapes the way conservation is operationalised and, in turn, conservation practices provide a marginal feedback reinforcing the wider structures. In other words, militarised conservation transects with existing practises of violence, with different effects for different social groups, but without fundamentally altering the overall structuration process.

At the macro-level, the principal source of violence in Kahuzi-Biega National Park is likely not militarised conservation, but the activities of non-state armed groups inside the park. These groups loot local populations, including some Non-Batwa populations, and war against one another to secure mining sites and territory inside the park. The quote below from an interview with a human rights activist in Kalehe territory resonates with this observation:

> The park is a morgue. The armed groups have divided up the hills and rivers. You can't walk around. Even the eco-guards don't dare to enter anymore. Everyone is afraid of the park since the militia moved in. If the agents of the park can dare to walk there it is perhaps toward Tshivanga [the park HQ]. The land has been conquered by armed groups. The FARDC soldiers based here are also helplessly watching the illegal exploitation of the park's natural resources.[136]

It is in regions of the park where ICCN have least territorial control that the majority of non-state armed groups appear to operate and the most violence occurs, including against civilian populations. At one stage, ICCN was forced to abandon most of its activities in the Kalehe part of the highland sector, including several patrol posts. As the above quote suggests, the concentration of armed actors makes it difficult even for joint-patrols of armed eco-guards and FARDC soldiers to police this area. The dissipation of state control has driven further insecurity, which further restricts people's ability to live and practice farming at the forest's edge. This has driven migration away from the park boundary to more urban centres.

People who bear grievances related to the legacies of conservation do not necessarily favour the dissolution of protected areas or the defunding of militarised enforcement. Despite recognising the negative consequences of coercive conservation, many people living around Kahuzi-Biega National Park's highland sector have experienced the fragmentation of ICCN's territorial authority as detrimental to their lives and livelihoods. Many people are even left longing for a return to times when the park authorities exerted greater control. Some respondents said they want more eco-guards and government soldiers to secure the forest's perimeter. They argue this would enable people to go back to the farms they abandoned due

[136] Interview with human rights defender, Kabare territory, 14/04/2021.

to insecurity, and as a result, decrease pressure on park resources. This finding is supported by the quote below gathered during a focus group in a village at the edge of the park:

> We want the state to come back to these places and make itself felt. This would give us confidence in terms of security. We want ICCN to build patrol posts for eco-guards all around the park so that they can ensure the security of the surrounding population. The people who fled their homes would like to return to their native lands, because they have been scattered to different villages.[137]

Militarised conservation clearly has some negative side-effects. However, the demilitarisation of conservation would likely produce inadvertent consequences of its own. Allowing people free access to the park's resources, for instance, would almost certainly produce adverse outcomes for conservation and insecurity – as has been demonstrated in some parts of Kahuzi-Biega National Park's highland sector. Conflicts between the diverse non-state actors looking to profit from the park's resource wealth would likely to continue, while conservation-related conflicts would be replaced by other conflicts whose relative intensity would be difficult to predict. I do not dispute the importance of work by indigenous rights activists and political ecologists in highlighting the violence of militarised conservation. However, these insights must also be contextualised in regions where the violence of militarised conservation is anything but anomalous, but a continuation of the structures which first engendered it.

Under a demilitarised conservation, we might also consider what would happen to the park's two hundred or so eco-guards. Perhaps they would become peasant farmers like the majority of people living in the region? Or perhaps they would seek alternative forms of arms-carrying work, such as with the government army or non-state armed groups? In short, the demilitarisation of conservation would not necessarily coincide with the demilitarisation of the wider Kahuzi-Biega landscape. In fact, the opposite could occur. This leaves conservation organisations with few other options to be taken seriously than by using military force.

## 9. Discussion and conclusions

I have analysed the factors driving the persistence of armed groups in and around a militarised conservation enclosure in war-torn eastern DRC. At the very least, the case I present forces us to reconsider analyses which paint conservation conflicts through a domination/subjection binary (see Peluso, 1992; Norgrove and Hulme, 2006; Holmes, 2007; Cavanagh and Benjaminsen, 2015; Witter and Satterfield, 2019; Simpson and Geenen, 2021). This work is not necessarily incorrect, especially in relatively peaceful settings where more hegemonic relations exist. However, the lack of state authority and presence of numerous armed actors makes it erroneous to characterise much of the violence and illicit extraction in Kahuzi-Biega National Park as 'resistance' to conservation rule. This violence might not be so much a reaction to something negative (i.e. coercive conservation) but a positive mode of political action in its own right. As such, the seemingly perpetual cycles of mobilisation, demobilisation and remobilisation around the park should be viewed more as co-produced repertoires of action developed in a context of limited state presence and indeterminate status distinctions.

[137] Focus group, Kabare territory, April 2021.

Resistance thus becomes part of the story, but a relatively minor part. Although this observation is not necessarily new to the literature (see Lombard, 2020, for example), my theoretical approach and empirical data provide several novel insights.

First, social structures dictate the practice of militarised conservation in Kahuzi-Biega National Park as the only feasible form of conservation. In turn, militarised conservation contributes, but only marginally, to the broader political economy of armed mobilization. In other words, by itself militarisation does little to strengthen the structures that engendered it. Although militarised conservation does shape human agency by provoking resistance (Witter 2021), the decision to join and collaborate with non-state armed groups and engage in illicit resource extraction is primarily influenced by wider structures. These structures produce motivations ('grievance') for armed mobilisation through historical conflict dynamics and a scarcity of economic opportunities. In turn, opportunities ('greed') for rebellion are produced by the geography of the park and entrenched illicit economic networks. As per the theory of structuration, some of these structures are reproduced – and/or reshaped – through the unintended consequences of individual agency. This framing does not cast aspersions on people's legitimate grievances against conservation projects such as Kahuzi-Biega National Park. Neither does it dispute that these grievances can provide a fertile ground for local collaboration with armed groups to occur. Rather, it shows that conservation by itself is not a prominent driver of violence or militarisation in the protected area studied. If conservationists are responsible for engendering such dynamics, it is because they play by the rules rather than change them, thus serving to perpetuate systemic reproduction.

Second, the features of the landscape produced through the designation of Kahuzi-Biega National Park probably play a more important role in the structuration of armed mobilisation than the violence of militarised conservation itself. In a conflict-afflicted region, these include the creation of a large and relatively unpopulated space close to national borders. With dense forest cover, harsh topography, and abundant resources, this provides an ideal location for armed groups to hide out and pursue wider ends. From this angle, the 'friction' (Scott, 2009) of protected area terrains lends them not only to the use of military tools and technologies by the state and state-like actors (Lunstrum 2014), but also the proliferation of non-state armed groups (where present), most of which also engage in coercion. Where other commentators argue fortress and militarised conservation extend state sovereignty (Massé and Lunstrum 2016; Woods and Naimark 2020; Peluso and Vandergeest 2011; Neumann 2004), my findings suggest the opposite could also occur: i.e. conservation enclosures could contribute to the fragmentation of government control. This chimes with recent work on Virunga National Park – also in eastern DRC – which has become a patchwork of partly disputed and partly overlapping political forests, controlled by various state and non-state actors (Marijnen and Verweijen, 2020). Where the state is already or over time becomes weak, protected areas therefore increase the feasibility of rebellions occurring by creating 'staging grounds' (Gaynor *et al.*, 2016) for broader dynamics of violence and conflict to play out. That is to say geographical features which are an intentional bioproduct of protected area designation inadvertently render these areas very difficult to control. This increases their appeal to people engaged in illegal activities or opposed to an incumbent government. The above observations have important implications for conservation policy.

Third, several commentators have called for the demilitarisation of conservation in violent frontier regions like eastern DRC and more broadly (Verweijen and Marijnen, 2016; Duffy *et al.*, 2019). Based on my research in Kahuzi-Biega National Park, I contest this and question the feasibility of pursuing conservation through means other than militarily in such contexts. To paraphrase Marx (2015), conservation authorities make their own history, 'but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past.' Even though they would likely rather find alternative means, they must find ways to operate in regions where politics typically takes place through the barrel of a gun; or in the words of Lombard and Tubiana (2020, 8), where there are 'very few other possibilities for being taken seriously.' In fact, militarized conservation (just like poaching) is itself a symptom of deeper structural dynamics (cf. Duffy et al. 2019, p.68). Despite claims protected areas 'limit the life chances of people living in and around them' (Ybarra 2018, 6), the defunding of militarised conservation in conflict-afflicted regions may also serve to aggravate conditions of insecurity, as well as remove some of the (licit and illicit) benefits that communities living in the vicinity of protected areas have access to. Such benefits could include employment, development and a degree of security, as well as continued access to resources inside park boundaries.

The possible desirability of military conservation, as a source of stability and contributor to the establishment of less violent structures, has been overlooked in the literature. Although eco-guards might be involved in human rights abuses just like any other military actor, they could also provide protection and basic security at times. This specific finding is not unique to my case (Kelly 2014; Kelly and Gupta 2016; Titeca et al. 2020), although its implications have not yet been fully emphasised. I introduce the possibility that some form of militarised conservation may be appropriate in violent frontier settings. This chapter provides evidence to dispute broad statements that 'militarised conservation as a model, even when it might result in conserving some animals and enforcing some protected areas, is fundamentally unjust' (Duffy et al. 2019, p.67). The effects and justness of militarized conservation are contextual and depend on underlying social dynamics specific to the site at hand.

# CHAPTER 6: CONSERVATION, EXTRACTION AND SOCIAL CONTRACTS AT A VIOLENT FRONTIER

This chapter is based on the following publication:

Simpson, F, O., Pellegrini, L. 2022. Conservation, extraction and social contracts at a violent frontier: Evidence from Eastern DRC's Itombwe Nature Reserve.
*Political Geography* 92, 1–11.

**Abstract.**

Conservation efforts must develop strategies to perform at violent frontiers where environmental values, mineral extraction and conflict intersect. Using war-torn eastern DRC's Itombwe Nature Reserve as an illustrative example, this chapter explores how community conservation is implemented and received at a violent frontier. Taking inspiration from an emerging body of literature which portrays conservation as a form of 'social contract' in regions where the nation state is weak or absent, it explores some of the expectations and obligations that surround community conservation initiatives. I draw the conclusion that conservation social contracts are likely to produce unintended consequences when left unfulfilled or broken. Conservation actors perceived to be breaking the terms of (implicit) social contracts can inadvertently encourage local communities to embrace alternative contracts with other actors seeking to extract value from the resources located in frontiers, such as industrial mining companies.

## 1. Introduction

In protected areas positioned at violent frontiers where conservation, extraction and contestation overlap, the standard challenges to conservation are compounded by the inability of governments to exert territorial control. The coercive strategies of fortress or militarised conservation, implemented in many protected areas in conflict-afflicted regions, encounter numerous difficulties generated by the plurality of actors who can resort to violence in order to achieve their aims (Lombard, 2016; Verweijen and Marijnen, 2016). Recognition of the limitations of coercive conservation has inspired a search for different approaches. Community conservation, also known as community-based natural resource management (CBNRM), has been presented as one alternative (Agrawal and Gibson, 1999).

Instead of imposing conservation, community conservation encourages people to become the co-owners of resources and values generated through protected area designation. This is achieved through the devolution of regulatory responsibility away from the state toward local populations (Agrawal, 2005). By giving people a stake in how protected areas are managed, the aim is also to coach new subjective beliefs and behaviours that are conducive to the

preservation of ecosystems. Thus, community conservation encourages people to regulate themselves and is often considered a form of governmentality, or 'environmentality', in the Foucauldian sense (Agrawal, 2005). Community conservation is also grounded on the premise that local populations must derive material benefits from protected areas for conservation to succeed in the long-run (Agrawal and Gibson, 1999). Through a dual focus on decentralised governance and economic incentives, community conservation is often viewed as part a broader shift toward the neoliberalisation of conservation policy and practice (Büscher, 2013; Dressler et al., 2010).

This chapter sets out to unpack the practice of community conservation in a violent frontier and we 'zoom in' on a protected area in eastern DRC South Kivu Province. Itombwe Nature Reserve is the only protected area in eastern Congo to be established according to the community conservation paradigm during a period of active conflict. Uniquely, multiple armed groups and around 600,000 people were living in the wider region while the reserve was being created (Kujirakwinja et al., 2019; Verweijen et al., 2021). International NGOs cooperated with the government to establish the reserve through two governmental technologies: participatory mapping and zoning exercises; and the partial devolution of regulatory responsibility to communities themselves. I argue that this conservation arrangement essentially formed part of a social contract, whereby improved security, continued access to land and resources, and development projects would be provided in exchange for communities accepting certain duties and constraints. The contractual approach is an aspect of decentralised natural resource management that is underappreciated in the literature, but is crucial to understand how conservation efforts attempt to manufacture new aspirations and behaviours, to convince rather than coerce.

This research is supported by eight months' fieldwork in eastern DRC's South Kivu Province – from August 2019 to January 2020 and May to June 2021. During this period, semi-structured interviews were conducted with over forty local and international conservation NGOs, members of Congolese civil society and customary chiefs in Bukavu, South Kivu's capital. I worked with teams of local researchers to conduct six fieldtrips in the chiefdoms of Wamuzimu, Basile, Lwindi and Burhinyi to the western flank of the reserve and Itombwe Sector to the east. These sites were selected because they provide diversity in terms of the degree of interaction between conservation authorities and the populations, ranging from those which had the most (Wamuzimu and Basile) to those which had much less (Lwindi, Burhinyi and Itombwe). In these sites, the teams carried out over two hundred semi-structured interviews and twenty focus groups with men and women, who practiced a range of livelihood activities including agriculture, animal breeding, fish farming, hunting and artisanal mining. I have triangulated the field data with NGO reports, legal documents, letters and WhatsApp messages.

The next sections provide an overview of the literature on violent state and commodity frontiers, fortress and community conservation, and conservation social contracts. The section after that documents the history of conservation, extraction and conflict in the wider region in which Itombwe Nature Reserve is located. Next I describe the governmental technologies used to establish the reserve and the making – and eventual breaking – of the conservation social contract which supported them. Finally, I discuss the implications of my

theoretical approach and empirical findings for the broader literature on community conservation in the context of violent conflict and frontier expansion.

## 2. Conservation at the edge of state

### *2.1 Violent Frontiers*

State frontiers occur both at the boundary between two or more countries and at the periphery of political, administrative and military power within countries (Giddens, 1985). They are typically located in geographically inaccessible or 'rough' terrains such as mountains, marshlands and thick forests. Such regions can be abundant in natural resources and attendant commercial opportunities. This makes them feasible bases for rebel movements, armed groups and criminal gangs to hide out, strategise and pursue illicit activities (Korf, 2011; Raeymaekers, 2009). As a result, state frontiers frequently coincide with sub-national regions affected by civil war, political and economic upheaval, where governments fail to exert a monopoly over the means of violence. The precarity, instability and isolation of frontiers can leave their inhabitants longing for a source of security and predictability (Titeca *et al.*, 2020).

As opposed to state frontiers, the expansion of commodity frontiers can be viewed as one way to incorporate new territory into the global capitalist system. Thus commodity frontiers become providers or supply chains for capital accumulating activities, through processes of socio-ecological transformation and industrialisation (Moore, 2000). They can be considered areas where new resources are being discovered and invented (Tsing, 2003; Kelly and Peluso, 2015). The frontier expansion induces the suspension and reconfiguration of incumbent regimes of resource access and control, clearing the path for novel forms of extraction, invention and commodification to emerge (Rasmussen and Lund, 2018). Mining activities and conservation efforts often come together at commodity frontiers, at times coexisting peacefully and at others colliding dramatically.

Going back to the colonial era, it is perhaps mining activities that offer the most obvious examples of frontier expansion. The global mining commodity frontier continues to expand through the proliferation of an 'extractive imperative', whereby in many countries extraction comes to trump all other policy objectives (Arsel et al., 2016). This is enabled by a variety of technologies, production processes and discursive strategies that operate at multiple scales (Verbrugge and Geenen, 2019; Verweijen and Dunlap, 2021). Conservation appears at first glance less clear a driver of frontier expansion, but on closer inspection can also transform resources and landscapes into commodities for consumer markets (Igoe and Brockington, 2007; Kelly, 2011; Büscher, 2013). In this chapter, my goal is to understand how expansion of the conservation commodity frontier is achieved through a community-based, consensual approach in a violent state frontier where mines also vie for control of land and resources.

*2.2 Fortress and Community Conservation*

Historically, expansion of the conservation commodity frontier has been facilitated through coercive or fortress conservation (Roe, 2008), a governmental technique rooted in colonial practices and based on a positivist ontological perspective. Fortress conservation is dualistic, viewing social and environmental systems as separate, and local populations as the primary force driving environmental change (Neumann, 1998).

Proponents of fortress conservation advocate for centralised, coercive and often militarised forms of natural resource governance, which prioritise scientific research, tourism and safari hunting over land uses benefitting the local population (West and Brockington, 2006). The approach has proven popular in protected areas across the Global South, including in conflict-ridden eastern DRC where Garamba, Kahuzi-Biega and Virunga National Parks all depend on military technologies to secure their boundaries (Verweijen and Marijnen, 2016; Titeca and Edmond, 2019; Simpson and Geenen, 2021). Fortress conservation and its militarised enforcement have been the subject of international opprobrium and local resistance for failing to respect human rights and preserve biodiversity (Duffy et al., 2019), but also because they can exacerbate existing dynamics of violence and armed mobilisation (Lunstrum, 2014; Lombard, 2016; Verweijen and Marijnen, 2016).

Recognition of these failings has led to adaptations that incorporate more consensual strategies to push the conservation commodity frontier into new regions (Neumann, 1997; Vuola and Simpson, 2021). Although the practice of community conservation is ancient, the paradigm only entered mainstream conservation practice and parlance in the 1980s (Roe, 2008). Community conservation projects are often informed by the CBNRM approach (Blaikie, 2006). Part and parcel of this approach is to instil environmental values and make local communities the co-owners of the resources and mentalities generated by conservation (Agrawal, 2005). The logic follows that communities have played a positive role in the management of common pool resources in the past and hold the potential do so in the present (Ostrom, 1990). It also rests on the idea that conservation will not succeed unless local communities receive material benefits from protected areas (Neumann, 1997). CBNRM thus combines enhanced local participation and benefit sharing.

However, critiques exist. To begin with, protected areas do not necessarily require the support of local communities to succeed, as is often emphasised by the proponents of CBNRM. For instance, Tanzania's Mkomazi Game Reserve was able flourish in spite of significant local opposition (Brockington, 2004). Although advocates of CBNRM tend to stress the importance of benefit sharing with local populations, in reality community conservation projects often serve to extend the reach of coercive states into new and unexplored areas (Neumann, 1997; Peluso and Vandergeest, 2011; Woods and Naimark, 2020). In turn, communities often end up being little more than passive recipients of, as opposed to active participants in, project activities (Leach, Mearns and Scoones, 1999). Broader queries remain about how to define what makes up the 'community' in community conservation initiatives (Stone and Nyaupane, 2014). For example, Agrawal and Gibson (1999) highlight the pitfalls of treating communities as monolithic blocks void of internal heterogeneity, without connections to wider political economic structures or – for that matter – other communities.

Although philosophically fortress and community conservation differ in significant ways, the two are not necessarily mutually exclusive. Even in state frontiers and active conflict zones, conservation efforts can combine both fortress and community conservation. For example, through research in eastern DRC's Virunga National Park, Verweijen and Marijnen (2016) show how community conservation can hybridize with a counterinsurgency logic whereby development projects and benefit sharing exist alongside hard counterinsurgency measures or green militarisation. In reality, most fortress or militarised conservation areas combine some more participatory or developmental components alongside coercive enforcement.

*2.3. Community Conservation as a (Social) Contract*

The idea of conservation contracts goes back to West's (2006) book 'Conservation Is Our Government Now' which described indigenous Gimi people's relationship with Papua New Guinea's Crater Mountain Wildlife Reserve. The Gimi were willing to participate and accept conservation rule, i.e. expansion of the conservation commodity frontier onto their lands, with the expectation that they would receive development and commercial opportunities in return. Li (2007) uncovered a similar dynamic in Indonesia's Lore Lindu National Park where villagers were required to concretise their commitment to park rules by signing 'community conservation agreements' in order to access project benefits. In the above instances, conservation contracts essentially represent a process of Weberian exchange: an 'agreement involving the offer of any sort of present, continuing, or future utility in exchange for utilities of any sort in return' (Weber, 2012, 170).

The proliferation of Integrated Conservation and Development Projects (ICDPs), PES projects and ecotourism initiatives across the world is indicative of the extent to which contractual thinking informs advancement of the conservation commodity frontier. As with CBNRM, such initiatives essentially assume local communities must receive sufficient benefits from conservation to change their behaviour from extracting wildlife and other biological resources to conserving them (Neumann, 1997). Potential material benefits of conservation include those arising from employment as park staff and eco-guards, tourist revenues, and access to natural resources inside protected areas; social services and infrastructure projects such as health centres, schools and roads; and income derived from market-based incentives such as PES. However, contemporary understandings of conservation contracts draw our attention to a much broader process of exchange.

Titeca et al (2020) introduce the expanded notion of conservation 'social' contracts. This term combines previous conceptions of conservation contracts with the idea of a social contract that exists between state and citizen. Although only applied to the conservation literature recently, the social contract has been one of the most influential ideas in political science for centuries (Locke, 1824; Rousseau, 1974; Hobbes, 2002; Rawls, 2005). Numerous competing visions of the contract have been articulated; most agree that collective governance depends upon consent of the people (O'Brien, Hayward and Berkes, 2009). According to Titeca et al (2020, 3), the social contract of conservation is 'a form of agreement or contract, formal or informal, between two or several parties, which involves the regulation of the extraction, consumption and trade of natural resources.' Through research in eastern DRC's Garamba National Park, they show how people came to perceive conservation as a source of long-term

consistency in a region where crisis and unstable property relations are the norm. In other words, conservation represented an arrangement through which access to resources was ordered over the *longue durée*, in itself a form of governance and a provider of stability.

Contemporary debates about social contracts address the influence of neoliberalisation, the move from government to governance, and the role of non-state actors (O'Brien, Hayward and Berkes, 2009). Private companies, philanthropists and NGOs are increasingly implicated in the definition and delivery of social contracts. In sub-Saharan Africa, social contracts existed first between families and their communities and second between communities and the state – i.e. families 'owe allegiance to their community and the community has a contract with the state (Leonard, Mushi and Vincent, 2011: 4).' Social contracts do not, therefore, only exist between state and subject, but connect multiple actors that operate across different hierarchical levels, and shift in time with broader social, political and economic relations. The expectations and obligations surrounding conservation social contracts connect with and layer upon these broader contractual relations and mentalities.

It is also important to note that conservation social contracts are embedded within larger political and economic structures, alongside associated inequalities and power relations (Nussbaum, 2006). Thus social contracts can be fundamentally discriminatory, serving to prioritise one side at the expense of the other, and interpreted in different ways by different parties (Pateman, 1985; Titeca *et al.*, 2020). Elites who are best-placed to gain may tend to come out in favour of contracts, whereas other community members might be more sceptical of accepting agreements for which they see no direct benefits to themselves. Social contracts, therefore, do not necessarily imply widespread consensus across a social body, but may serve to paper over disparities of opinion and opportunity.

Social contracts can break down. According to the Rousseauian interpretation conflicts arise when one side fails to deliver on its side of the agreement. Based on John Locke's conceptualisation, citizens have the right to overthrow and replace a government – i.e. contractual partner – which does not deliver its obligations to them. Titeca et al (2020, 8) dispute the notion of contracts being 'replaced', suggesting instead that 'the social contract underpinning conservation efforts is never completely "broken", but re-negotiated: as a mental image, it continues to play an important role for the actors involved, and continues to inform the ways in which it is acted upon.' I build on these analyses by demonstrating how the failure to deliver on the social contract established through community conservation can lead people to abandon previous contracts and (in some cases) seek opportunities with new contractual partners.

## 3. The Itombwe Massif: a state and commodity frontier

The Itombwe Massif has long been a state frontier and a site of recurring conflict where the Congolese government's political, administrative and military authority is weak and fragmented. The region remains inaccessible due to dense forests, sheer mountains, intractable insecurity and poor infrastructural connections. Yet from the Colonial era onwards its mineral endowments and biological diversity attracted ecologists, geologists and mining companies. The Massif can therefore also be considered a commodity frontier characterised

by the discovery, invention and exploitation of new resources. The region has exhibited frontier dynamics for at least a century and maybe more.

From 1968 to 1988, Fizi territory's Hewa Bora forest served as a base for Laurent Kabila's rebel movement as it tried to destabilise the regime of President Mobutu. The 1994 Rwandan genocide and ensuing advance of the AFDL rebel army in 1996 caused vast numbers of refugees and members of the ex-Rwandan government to flee onto the Massif. The First and Second Congolese Wars (1996-1997 and 1998-2003) led to the proliferation of armed groups which used the region to hide out, plan operations and extract resources. Although Congo's Wars have officially ended, the Congolese government still only exerts limited territorial control over the area. Banditry and kidnapping are common. According to Kivu Security Tracker (2021), about ten armed groups still operate in and around its vast forests. Itombwe Sector, the administrative territory which represents the largest portion of the reserve, is currently racked by a protracted conflict between several militia groups. These include the Banyamulenge's Gumino and Twiganeho groups, the Burundian *Forces nationales de liberation* (FNL) and Red-Tabara groups, and a coalition of local defence or 'Mai Mai' groups (Verweijen 2021). The violence continues up until this day, with fifteen people killed during a raid on Kipupu, Itombwe Sector's administrative centre, in July 2020.

The Belgian company MGL began exploiting minerals in the wider region of South Kivu during the 1930s. In 1964, the government nationalised the industrial mining sector in the provinces of South Kivu and Maniema. As a result, some of MGL's mining concessions were inherited in 1976 by the part-state owned company SOMINKI. This company gained mining rights in diverse parts of South Kivu, but following financial difficulties sold forty-five of its concessions to the Canadian mining company Banro Congo Mining in 1996. When President Laurent Kabila tried to renationalise the mining sector, Banro took the DRC government to court and successfully retook several key gold concessions. It subsequently opened two functional mines: Twangiza in 2012 and Namoya in 2015. Looking to expand its operations in 2018, the company conducted further mineral prospection inside Itombwe Nature Reserve itself. In November 2019, following repeated attacks on its employees by armed groups, Banro decided to close all of its mining operations in eastern DRC. Despite clear impediments to industrial mining, artisanal mining continues to take place in many zones previously operated by MGL. Cassiterite is exploited in the sites of Apanga and Miki to the east of Itombwe, as well as in the sites of Zombe, Lugundu and Misa to the west.

The region first piqued the interest of naturalists and biologists in the early 20th century. Alexander Prigogine's ornithological studies and George Schaller's surveys of gorillas in 1959 established the region as one of the most biologically rich sites in the Albertine Rift (Plumptre *et al.*, 2009). Yet for generations before the arrival of Westerners to the region, communities living in the area had successfully conserved the forests of the Massif using traditional methods. For example, they prohibited hunting in areas called 'Mulambos' where animals could reproduce and raise their young. Failure to respect the customary rules could result in the 'Muzombo', a traditional curse which could lead to illness or death for its victims, and their families. The fact that certain charismatic species, such as gorillas and chimpanzees, were protected by the custom meant that there were still high concentrations of them in the area when Prigogine and Shaller arrived.

However, over recent decades local communities' customary forms of conservation have been disrupted by violent conflict, the presence of armed groups, and large-scale in-migration. During a 1996 expedition to the Massif, the WCS found that a number of gorilla populations documented by Schaller had disappeared. In turn, forest elephants had either been killed or fled the area due to widespread poaching during the Congo's two wars.[138] Reports of species loss led the Governor of South Kivu to make the case for a protected area to be established in the region through a decree published just after the First Congo War in February 1998.[139] Despite more insecurity sparked by the Second Congo War and the continued presence of armed groups in the area, WCS and WWF had also started to put additional pressure on the Congolese government to conserve the Massif. These NGOs carried out yet more biological and socio-economic surveys around the village of Miki in Itombwe Sector. These efforts led to the 2005 Kamituga workshop and the signing of a memorandum of understanding between ICCN, its NGO partners at the time (WCS and WWF) and the Ministry of Environment to speed up the creation of a reserve.

In September 2006, the Ministry of Environment finally published a decree to legally gazette what is now called Itombwe Nature Reserve.[140] With an indicative map showing rectangular boundaries that covered a massive 15,000 sq.km, the reserve was promoted as a way to protect the region's forests from being sold out to commercial logging and mining concessions (Gauthier, 2016). Yet for many of the 600,000 or so people living in and around it, the reserve represented a top-down, rushed and unjust attempt to take control of their lands (Kujirakwinja *et al.*, 2019). Few communities were consulted in advance of the decree's publication, which failed to account for their livelihood needs, and the complex territorial structures of different ethnic groups living in the area. People feared they would be forcibly displaced from their lands in the same way communities had been expelled from nearby Kahuzi-Biega National Park during the 1970s. In the years immediately after the decree was signed, some communities even prevented conservation authorities from entering their lands in and around the reserve.

It became clear that a top-down, centralised and coercive approach would be unethical and impractical for several reasons. First, the initial reaction to the reserve made clear any attempt to displace communities from their lands would be met with violent resistance. Second, many villages, artisanal mines and customary ritual sites would be near impossible to relocate. For example, the cassiterite mine of Zombe hosts up to a thousand miners at a busy time of year, providing an invaluable source of income to the population of Basile chiefdom. Third, the reserve's isolated forests continued to harbour multiple armed groups which it would involve all-out war to remove through military force alone. Fourth, pressure was mounting at local and international levels for the government and its NGO partners not to repeat the human rights abuses committed in other protected areas in the region. AfriCapacity, a local NGO which receives financial support from RFN, even wanted to have the entire reserve de-gazetted. As a result of these multiple and intersecting pressures, ICCN and its NGO partners went back to the drawing board.

[138] Interviews conducted in Itombwe Sector, May 2021.
[139] Ministerial Decree no. 01/008/GB/GP.
[140] Ministerial Decree no. 038/CAB/MIN/ECN-EF/2006.

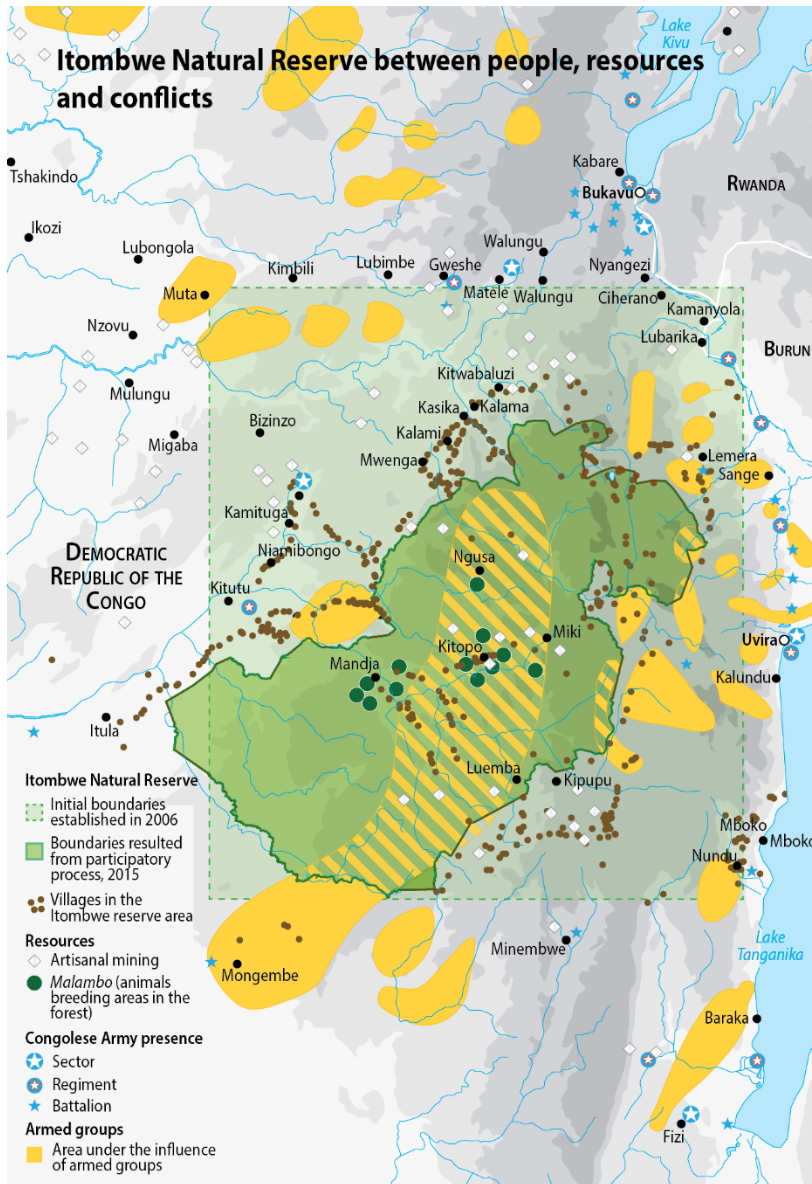


*Figure 11. map of eastern DRCongo's Itombwe Nature Reserve produced by Riccardo Pravettoni for Gauthier (2016, 9).*

## 4. Implementing community conservation at a violent frontier

With a grant obtained from the USAID, WCS convened the 'Mount Kahuzi Meeting' in 2008. The meeting brought together the ICCN, representatives of civil society, customary authorities and ICCN's NGO partners – WCS, WWF, RFN and AfriCapacity. During the course of discussions, the first two NGOs were keen to proceed with the conservation project, whereas the latter were more concerned about safeguarding the rights of communities. Yet despite differences of option, all parties eventually came to the agreement that steps needed to be taken to protect the Itombwe Massif against external threats (Kujirakwinja *et al.*, 2019). Rather than pursue a strategy of coercive conservation, the organisations took inspiration from a pioneering 'conflict-sensitive' approach developed by the International Institute for

Sustainable Development (IISD) (see Hammill *et al.*, 2009). They created a collaborative governance structure or 'joint framework' to implement conservation activities.

Different organisations were allocated different responsibilities: WWF, WCS and RFN provided financial capital and technical expertise, AfriCapacity the essential link to communities, and ICCN the sovereign power to establish of a protected area in DRC. Working through the Joint Framework, these organisations tried to 'engineer' community conservation through a top-down blueprint plan. This involved (i) participatory mapping and zoning activities, and (ii) the devolution of some regulatory responsibilities to the communities themselves. I argue that these activities essentially established a social contract of community conservation whereby local populations would accept certain obligations and restrictions in exchange for improved security, continual access to land and resources, and development opportunities. At the same time, more coercive forms of discipline seem impending once ICCN and its partners move toward the enforcement phase of protected area designation.

### *4.1. Participatory Mapping and Zoning*

ICCN and several NGOs (WCS, WWF, AfriCapacity) implemented participatory mapping and zoning exercise from 2010 to 2014 to reassign the reserve's external boundaries and establish internal land use zones. They consulted approximately 550 villages home to around 200,000 people about the location of the reserve's external boundaries (Kujirakwinja et al 2019: 53). Working in partnership with local NGOs and customary authorities, these organisations trained people in the use of GPS technology to indicate which parts of their forests they were willing to allocate to the protected area. They then produced a series of maps to take back to communities for further input. The principle of 'free, prior and informed consent' ensured that once a community had been approached, it could choose whether or not it wanted to enter into the conservation contract, with the option of discontinuing its involvement at any stage. Two communities located toward the south of the reserve exercised the right not to include any portion of their forests within the external boundary (Gauthier, 2016).

ICCN and the NGOs gradually redefined the external and internal boundaries of the reserve though five different scenarios. In July 2016, using a map created during the fifth scenario, the Provincial Governor of South Kivu signed a decree to formalise the new boundaries.[141] The limits now comprised 5,732 sq.km split into three zones: a multiple use, a buffer and a core ecological zone. People would be able to live and some sustainable use of natural resources would be allowed within the multiple use zone, only customary rituals would be allowed in the buffer zone, and the core zone would be strictly for conservation and scientific research. In the Mwana Valley, toward the south of the reserve, WCS worked alongside a local NGO to conduct an even more detailed mapping exercise in 2015, with zones identified for conservation, agriculture, human settlements and hunting. The plan is to eventually replicate this complex mapping process in other regions of the reserve. WWF have now installed boundary markers at the external limit in parts of Wamuzimu and Basile chiefdoms. But due to financial constraints and local opposition in certain areas, the internal and external limits have not been signposted in any other region of the reserve.

[141] Provincial Decree no. 16/026/GP/SK.

Rather than establish entirely new territorial arrangements, the participatory mapping process was designed so that the reserve respected customary systems of land tenure and resource uses. For example, through consultations with communities it was agreed that the Mulambos would comprise parts of the core ecological zone given hunting was already forbidden in those areas (see figure 1). There was therefore a degree of overlap between rules and land uses imposed by the reserve and those that already existed, which was also considered a way to limit the potential for resistance.

*4.2. Devolution of Regulatory Responsibility*

ICCN worked alongside WWF and AfriCapacity to establish devolved governance structures so that communities could contribute toward decisions regarding the reserve's management. Concretely, they created 'conservation committees' at the levels of chiefdoms and groupements – the latter of which represents an administrative level below the former. At the level of groupements, the committees are elected by local communities. They are also elected at the level of chiefdoms, but always include the Mwami and other senior representatives or 'elders' of the chiefdom.

The committees have several functions. According to a member of Burhinyi chiefdom's conservation committee, they 'provide a bridge between ICCN and the communities so that information can flow from one to the other.'[142] They thus represent a channel through which the communities can communicate complaints, concerns and their development needs to ICCN and its NGO partners. Perhaps most pertinently, the committees facilitate the organisation of community patrols. The aim of these patrols is to partially devolve responsibility for both biodiversity monitoring and the enforcement of conservation regulations to the communities themselves. Lasting up to a week, community patrols usually include between five to seven members of a given community alongside one or two armed eco-guards and, on some occasions, a representative of AfriCapacity. The eco-guards themselves are usually recruited internally from the communities. Members of a given patrol are paid a per diem of between $5 and $10 either by WWF or AfriCapacity.

So far the patrols have mainly focussed on monitoring biodiversity, predominantly charismatic mammals such as gorillas and chimpanzees, and human activities inside the reserve. For the time being, if a patrol catches a poacher hunting illegally within the reserve, they have been instructed not to arrest. Instead, they should inform the hunter of the new laws surrounding conservation and explain their rationale. Although if the culprit is found to have killed a species of special conservation value such as a gorilla or elephant, they can be taken to the customary chief to be punished according to the custom. Eventually, the plan is to move toward full enforcement of conservation rules and regulations, though it is not clear when this will begin. For the time being, the new laws exist more on paper than in practice.

[142] Interview with representative of conservation committee for Burhinyi, Bukavu, 25/08/2019.

## 5. The social contract of community conservation

### *5.1 Making of the Conservation Social Contract*

The research team was frequently told stories about how representatives of WWF and ICCN asked communities to provide lists of what they would like to receive in return for their participation in the reserve. Communities variously made requests for health centres, schools, road infrastructure, motorbikes, animal breeding projects, antennae to provide phone coverage, iron roofs, brick houses, machines to make bricks, employment opportunities, football equipment, and even museums to store their cultural artefacts. People referred to these lists as their '*Cahier de Charge'* with the Congolese state as represented by ICCN alongside its NGO partners.

Although ICCN and WWF probably never had any serious intention of delivering on all of these requests, many villagers came to see the lists they had provided as part of an explicit contract between themselves and reserve managers. Eco-guards likely contributed to such perceptions by making informal promises that benefits would begin to accrue to the communities in the future. For example, in the village of Kalundu, Basile chiefdom, gorillas frequently raid the local population's farms. When the population ask the eco-guards when they will receive compensation, the guards tell them that they must wait until tourists or researchers come to the area and give them money. Other people expect the reserve to increase the number of animals available in the reserve's multiple use zone, therefore improving the lives of hunters while also increasing the availability of protein.

But the contract of community conservation represented more than a narrow process of economic exchange. For example, a farmer from the village of Kitumba in Wamuzimu chiefdom clearly expected to receive some material benefits from the reserve. Yet in referring to the forest as his child – a metaphorical 'daughter' for dowry payment – it is also reasonable to assume he expected it to be protected, even cared for, by those managing the reserve:

> When people come from outside this area they say I like this thing in your land, the minerals or the forest. But for whatever they want they must give something back to the local population. We have no problem with ICCN. It is as if ICCN loves my daughter, the forest, but if he wants to marry her he must give a dowry.[143]

Other sources add credence to this interpretation. According to Gauthier (2016, 8), the objective of the original decree published in 2006 to establish the reserve was 'to protect the rainforest from being allocated for other uses, including concessions such as those for logging or mining, and the creation of new political territories.' Some members of the Babembe community, which are numerous in Itombwe Sector, thought that the reserve could help defend their customary forests from what they saw as the territorial ambitions of the Banyamulenge population living on South Kivu's Haut Plateau.[144] Luindi chiefdom's civil society described how they thought the reserve could provide financial incentives to speed up the demobilisation of armed groups that still operate in the area, contributing to improved

[143] Interview with farmer, Bingili Bazala groupment, Wamuzimu chiefdom, 01/11/2019.
[144] Interviews with influential members of Babembe community, Bukavu, May 2021.

security.[145] Thus in practice, most people came to see the reserve as both a source of economic development as well as a way to improve security and protection of their customary forests from perceived external threats.

The fact that employees of ICCN and its NGO partners were financially remunerated for their work likely also reinforced contractual interpretations of the conservation relationship. When asked who were the main beneficiaries of conservation, a farmer repined, 'we don't know who benefits because the community haven't seen anything. But the ICCN officers seem to benefit because they have a salary.'[146] There were rumours that representatives of international NGOs fraudulently enriched themselves through the reserve. For instance, according to the leader of a local women's civil society organisation in Mwenga Centre, Basile chiefdom, 'The people from WWF were giving less money to communities than they were supposed to. So the people working for WWF were taking money for themselves, which discouraged local leaders.'[147] These statements underline what could be perceived as the ethical imperative of conservation contracts from the perspective of the local population: i.e. if outsiders working to establish a protected area gain something for themselves, then so should the customary owners of the land.

### *5.2 Impacts of the Conservation Social Contract*

Two key questions must be considered at this stage. First, to what extent did ICCN and its NGO partners deliver on their share of the conservation social contract? Second, how has this affected the willingness of people to accept the obligations and restrictions imposed on them through protected area designation? I will address these questions in turn.

Communities have received some limited material benefits from the reserve. I have already mentioned opportunities for employment as eco-guards and the provision of small per diems for participating in conservation activities. In addition to this, WWF and AfriCapacity provided small animal breeding projects as an alternative to bush meat hunting in some villages. WWF installed two patrol posts and street lights in villages in the chiefdoms of Basile and Wamuzimu – though not in other areas. When approaching a community to discuss the reserve, representatives of the WWF would also typically give between $50-$150 to the local chief.[148] Such a practice is in line with a local custom, whereby visitors or guest chiefs must give something for their time and hospitality. I, as a foreign researcher, would also have to make these payments each time I entered a new chiefdom, groupement or locality.

Despite these small economic incentives and development benefits, the majority of people expressed the view that conservation has not delivered on their expectations. The fact that just thirty eco-guards are employed across a region populated by hundreds of thousands of people is demonstrative of just how limited the benefits are. In villages in Burhinyi, Lwindi and Itombwe Sector, there is a sense that economic benefits have not been shared equally,

[145] Interviews with representatives of Luindi's civil society, Kasica, November 2019.
[146] Interview with artisanal miner, Bashimwenda 1 groupment, Basile chiefdom, May 2019.
[147] Interview with leader of women's civil society, Mwenga Centre, Basile chiefdom, 20/11/2019.
[148] This figure was reported to us by a representative of an international NGO leading community engagement, Kitutu, Wamuzimu, 01/11/2020.

given that ICCN and its partners have mostly focussed on Wamuzimu and Basile. For example, a member of local civil society in Luindi told me, 'The chiefdom of Luindi was at one stage about to withdraw from the reserve as they saw projects being done in other areas, but very little here.'[149] Discontent also exists internally within communities. Most of the economic benefits of conservation have so far been confined to customary chiefs. As a result, in some villages there are rumours that the chiefs 'sold' the communities' forests for personal gain. Because the reserve has not yet entered the enforcement phase, any possible non-material dimensions of the conservation social contract, such as through improved security and protection of land rights, are yet to be made good on.

Despite the relatively narrow benefits of conservation thus far, there is evidence that the community conservation contract has led to some changes in both perception and behaviour. The fact that many local chiefs switched from a position of firm opposition to pro-active participation can be considered at least partial evidence of such a shift. This is no small achievement considering the scale of opposition to the 2006 decree. There is also some evidence of behavioural change at the level of individuals. For example, a villager from the groupement of Bingili Bazala in Wamuzimu chiefdom said, 'I was previously an illegal worker in the reserve, but I was taught to stop killing animals in the core zone. Because when animals become numerous in the core zone, they will become numerous in the multiple use zone.'[150] It appears that the conservation contract has even had a disciplinary effect on the behaviour of armed groups: at one point a Mai Mai group apprehended a man poaching gorilla in the core zone of Itombwe Sector and asked ICCN eco-guards to come and arrest the culprit.[151]

However, the impact of the contract on people's willingness to accept the rule of the conservation in the long-term appears to be limited. This can be explained by the failure of ICCN and its partners to engage in a clear and consistent manner with communities in all regions of the reserve, and to deliver on the communities' expectations of what would be provided to them as part of the conservation social contract. As a result, some people are not happy about the reserve, but at the same time acknowledge it is here to stay. Others refuse to support the reserve until the contract is realised to their satisfaction:

> The government is coming slowly and trying to 'tame' people, but I fear they will not respect our agreement. That is why for now I am against the reserve. For me to support the reserve they must keep their promises, they must bring projects and jobs.[152]

In the groupements of Cirere in Burhinyi chiefdom and Kigogo in Luindi chiefdom, two communities have gone a step further. As a consequence of the conservation contract not being upheld to their expectations, these communities have decided to discontinue their participation in the reserve altogether.

[149] Head of civil society, Kasica, Luindi chiefdom, 23/11/2019.
[150] Interview with farmer, Bingili Bazala groupment, Wamuzimu, 01/11/2019.
[151] Interview with senior representative of ICCN's team for Itombwe Nature Reserve, Mwenga Centre, Basile, 19/11/2019.
[152] Interview with a villager in Kalundu, Bashimwenda 1, Basile chiefdom, 12/11/2019.

*5.3. Breaking the Conservation Social Contract*

Cirere groupement was severely affected by the two Congolese wars which led to the destruction of large tracts of its forests. Until only recently, it was home to several armed groups which fought over territory and mining sites in the area. These groups hunted animals in the forest and facilitated the production of charcoal for sale in urban centres like Bukavu. Although Burhinyi chiefdom is now mostly rebel-free, armed groups still occasionally pass through Cirere groupement to enter the reserve and collect informal taxes from the population.[153] As a result of protracted conflicts and lack of state investment, the population have become distrusting of outsiders, yet simultaneously left wanting for the provision of state services, development opportunities and a source of enduring security.

The chiefs of Cirere were first approached by ICCN and WWF in 2010. They tentatively agreed to allocate parts of their forest to the reserve's multiple-use zone on the basis that their communities would still be able to gather resources and visit ancestral sites, and opportunities for employment and development would accrue over time. According to Burhinyi's Mwami, 'representatives of the reserve first came to see me to present their mission and objective. They said that they would bring development projects, build roads, schools and hospitals for the community.'[154] But over the years that followed little progress was made. ICCN and its partners focussed their activities primarily in the chiefdoms of Basile and Wamuzimu. And in 2016, when representatives of ICCN came to allocate the reserve's limits in Cirere, a dispute broke out over where the boundary should be located. ICCN claimed the population had originally agreed to allocate a larger portion of its forest to conservation – but then changed its mind. The community accused ICCN of changing the location of the boundaries in order to increase the size of the reserve. Villagers put pressure on customary chiefs to ensure villages, artisanal mining and customary ritual sites remained outside the multiple-use zone.

Moreover, ICCN and WWF did not deliver on what the community perceived as guarantees of financial support and development projects. Consequently, many people feel that they have been deceived and let down. An old man testified: 'They tried to manipulate us into giving away our forests!' The following quote demonstrates a similar view:

> The population is in need of forest resources. If you are going to stop them accessing these resources, you must give something in return. I think it is understandable that if you tell the population that you will develop the area and do nothing, the population will get angry.[155]

In short, whereas the community had anticipated a productive process of engagement and investment, the implementation of the conservation contract so far appears to have been modest in scope. In 2018, the chiefs decided to remove Cirere from the reserve altogether, writing a letter to the director of Itombwe Nature Reserve informing him that ICCN should

[153] In December 2020, CNDP rebels passed through Cirere to enter the Reserve after FARDC's operations against their bases in Kahuzi-Biega National Park. In May 2021, the Mai Mai Namujira group passed by the Cigubi mine next to the village of Cirere II to collect informal taxes from the people working there.
[154] Interview with Burhinyi's Mwami, Bukavu, 04/02/2020.
[155] Interview with chief of Burhinyi, Bukavu, 04/02/2020.

'not come here anymore.'[156] Along with several other groupements in Burhinyi, the community of Cirere is now searching for NGO partners to establish what is known as a 'community forest' on their territory. Unlike a nature reserve which is legally managed by the Congolese state through ICCN, a community forest would be under the complete jurisdiction of the community itself, meaning they would have the final say in all decisions concerning its management and maintain full access and use rights.

Luindi chiefdom's Kigogo groupment is adjacent to Cirere. The area has also been severely affected by conflict and violence since the two Congolese Wars. In August 1998, a notorious massacre took place in Luindi's centre, Kasika, where over one thousand people were murdered by the Rwanda-backed RCD rebel army. The presence of foreign fighters in the area, which would frequently loot and impose informal taxes on the local population, led to the formation of Mai Mai or local defence forces. At least three self-defence militias still have bases in Kigogo.[157] Decades of war have left the groupement isolated and impoverished, with only limited state presence and poor security. As there is no functional road between Kigogo to Kasika, people must walk the twenty kilometer stretch to access the nearest market and mineral trading centre.

The chiefs of Kigogo were first approached by ICCN and WWF in 2010. They initially agreed to participate in the reserve under the conditions that they would still be able to access the forest to gather resources and perform customary rituals, support would be provided for the demobilisation of armed groups in the area, and development projects would be implemented, most importantly a road linking the groupement to Kasika. According to a resident of the village of Mbanga in Kigogo, 'The partners who came to create the reserve made a lot of promises to all the communities. They said "if you give your forests or part of your forests, you will have development."'[158]

However, the community became suspicious when representatives of ICCN attempted to install signs to demark the external limits of the reserve without their consent. According to an artisanal miner in Kigogo, 'They had come with demarcation signs and the population turned them away. We told them that they could not come and fix their signs without first talking to the community!'[159] This led to a fraying of the conservation relationship, widespread distrust and suspicion. As was the case in Cirere, ICCN and its partners also failed to deliver on their promises of development. The fact that the groupement continues to be a site of armed mobilisation and conflict suggests the reserve equally failed to improve the security situation in any meaningful sense.

In 2018, the chief of Kigogo decided to discontinue the groupement's participation in the reserve. The vast majority of the people I spoke with during fieldwork supported his decision. For instance, focus group participants described how they were ready to 'carry arms to block

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[156] Interview with representative of Burhinyi Chiefdom, Bukavu, 22/08/2019.
[157] The three main armed groups with an influence in Kigogo are those of Ruma, Kitwamaja and Namujira.
[158] Interview with villager, Kigogo groupement, Luindi chiefdom, 22/06/2021.
[159] Interview with artisanal miner, Kigogo groupment, Luindi chiefdom, May 2019.

the road to the enemy, ICCN – which has replaced the FDLR[160] rebels.'[161] The chief sent several letters to ICCN stating the community's opposition to the reserve, and a petition to provincial and national authorities. In September 2019, a delegation from the community met with the director general of ICCN in Bukavu to request Kigogo be removed from the reserve altogether, and for ICCN and its partners to discontinue their activities in the area.

However, the community of Kigogo did not just withdraw their participation from the reserve. They went a step further. In 2018, the Canadian gold-mining company Banro, which had a permit to explore for gold in kigogo, started conducting prospection activities in five sites which coincide with the reserve, including inside the core ecological zone. Like ICCN and the NGOs, Banro used a contractual approach to try curry favour with the local population. For example, a member of local civil society in Luindi told the research team,

> Banro encouraged the population to oppose the reserve because they wanted to start prospection in the area. Banro was manipulating the population. They would say that this area must not become the reserve so that they can exploit gold and do many projects. They said they can exploit for 50 years and develop the area. They said we must refuse the reserve.[162]

As part of its extraction contract with the local population, Banro agreed to construct the road to Kasika and build a hydro-electric dam to provide electricity.[163] While conducting prospection activities, it paid around fifty young men $10 per day to work as labourers in the locality of Muhuzi. In order to ensure security, Banro also paid off the armed Mai Mai Ruma group which operates in the area.[164] The company even organised for the leader of this group ('Ruma') to go for medical treatment in Bukavu.[165] The customary chiefs of Luindi and Kigogo are also rumoured to have received financial incentives from Banro, in the form of 'envelopes' filled with cash, to secure their consent.[166]

Through this extraction contract, Banro won the support of many among the local population, including the chiefs. Simpson and Fikiri (2020, 152) quote the chief of Kigogo: 'Between ICCN and Banro, we will choose Banro. Because at least we have feedback from other places where Banro is located that there is change.' An artisanal miner also expressed his support for industrial extraction: 'We are told that there may be [environmental] impacts, but we believe that industrial exploitation can bring development here to Luindi's chiefdom.'[167] The population of Kigogo thus turned against the reserve in favour of industrial mining. As demonstrated in the following quote, this can be considered partly a result of Banro's efforts to engineer local opinion in favour of extraction, but also because ICCN and its NGO partners failed to deliver on their promises to the community:

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[160] The FDLR is an armed Bahutu group active in the eastern DRC since after the Rwandan genocide and responsible for numerous atrocities against local populations.
[161] Focus group with community, Kigogo groupment, Luindi chiefdom, January 2020.
[162] Interview with civil society leader, Luindi chiefdom, 21/11/2019.
[163] Interviews conducted in Basile and Luind chiefdoms, October 2019.
[164] The research team received reports both at the level of communities in Kigogo and ICCN employees that Banro paid protection money to the Mai-Mai Ruma in 2018.
[165] Interview with civil society leader, Luindi chiefdom, 21/11/2019.
[166] Interview with civil society leader, Luindi chiefdom, 21/11/2019.
[167] Interview with artisanal miner, Kigogo groupment, Luindi chiefdom, May 2019.

> I should be clear that our community had started to oppose the idea of the reserve just after Banro came. ICCN was too slow and its plans were not materialising. Banro came with money right away. It's a question of promptness in business![168]

> Resistance to the reserve began when we heard about Banro's arrival at a time when INR [the reserve] project was not living up to its promises. We needed a partner who could develop our villages, open up roads and build health, education and other facilities, which INR had not done.[169]

Yet despite the initial hype, Banro also failed to deliver on its contract with the population. By the end of 2018, less than a year after prospection began, Banro left Kigogo without establishing an industrial mining operation or providing any of the development projects it had promised. As local civil society leader told us, 'there is no benefit of all of this work. Banro made promises to the local population, but we think Banro said this to try to get people from this groupement to adhere to its vision.' The company has now decided to sell off its mining concessions in DRC, including those that overlap with Kigogo and the reserve.

## 6. Discussion and conclusions

This chapter provides an in-depth study of a community conservation initiative implemented at a violent frontier that is home to numerous armed groups and hundreds of thousands of people, where mining and conservation activities intersect. In doing so, it builds on an emerging body of literature that examines the effects and logics of protected areas located in regions afflicted by war and protracted violence (Lombard, 2016; Marijnen et al., 2021; Verweijen and Marijnen, 2016; Ybarra, 2018).

I wish to highlight three key contributions to the literature on conservation at violent frontiers. First, frontiers are often located in isolated regions where instability and insecurity dominate, leaving their inhabitants longing for sources of certainty and economic development (Titeca *et al.*, 2020), i.e. what would normally be provided by a functioning government. In this regard, past literature has demonstrated how efforts to extract value from the commodities located in frontier regions, whether through extractive or conservation activities, can both create and exacerbate existing dynamics of violence and insecurity (Lunstrum, 2014; Geenen and Verweijen, 2017; Verweijen, 2017; Simpson and Geenen, 2021). However, frontier actors could also be seen to provide opportunities for potential order-making where the state is otherwise weak or absent (West, 2006; Kelly, 2014). Using Titeca et al's (2020) notion of conservation social contracts, I demonstrate how a community conservation initiative was presented and perceived as one such opportunity in a violent frontier zone. In other words, by accepting certain obligations and restrictions upon their lives, participants in the community conservation project anticipated certain benefits. These included jobs and economic development as well as improved governance and security. A critical question for future research will be to what extent the contractual mentality is

[168] Interview with villager, Kigogo groupement, Luindi chiefdom, 20/06/2021.
[169] Interview with villager, Kigogo groupement, Luindi chiefdom, 22/06/20021.

inculcated through conservation projects, or consistent with the subjectivities people already hold? In the latter case, the contractual elements of conservation would simply recapitulate a social process already taking place, rather than add something entirely new.

My findings suggest that the failure to deliver on people's expectations of what community conservation should deliver is likely to have unintended consequences. This leads to my second contribution: namely, that there are conditions under which social contracts (though perhaps not contractual mindsets) break apart. As is the case with development interventions more broadly, people's relationships to community conservation projects, and the contracts they represent, are likely to be characterised by periods of hope followed by disappointment, with perceptions shifting over time, often in a cyclical fashion (Massarella *et al.*, 2018). The critical CBNRM literature highlights the frequency with which community conservation projects overpromise yet under-deliver (Agrawal and Gibson, 1999; Dressler *et al.*, 2010). Community conservation contracts, like the products of most social arrangements, are constructive of both winners and losers. In other words, not everyone is content about contracts all of the time (Blaikie, 2006). As the case of Itombwe Nature Reserve demonstrates, certain aspects of conservation social contracts can be implicit, rather than legal or formal, and there can be different perspectives about what has been agreed. The failure to deliver on the implicit elements of social contracts can fuel dissatisfaction. In extreme cases, the disappointment that surrounds unfulfilled contracts reaches a critical point where people choose to discontinue their participation in conservation projects altogether. Where contracts fragment but contractual mentalities remain intact, people are likely to seek contractual partners elsewhere. Where conservation and mining frontiers coincide, people may turn away from conservation organisations toward the extractive industries as a source of stability, security and development. Local people are in many ways dependent on outsiders fulfilling promises to them, but they also develop their own internal strategies of self-advocacy, of which contract swapping could be one example.

Third, I propose that due to the considerable rents generated through the extractive industries, it is possible that mines will be more capable of delivering on the economic dimensions of contracts than conservation initiatives, at least in the short-term. Protected areas depend on comparatively small financial support from international NGOs and development agencies. This funding can be pulled if financial backers do not see quick evidence for tangible results. Insecurity adds further challenges to the delivery of conservation at violent frontiers.[170] Conversely, the establishment of a mine can create immediate employment opportunities and enough rents to win over the loyalty of part of the community, typically the elites. Such loyalty is sufficient to allow operations even in the face of extensive negative impacts born by local communities and future generations. This could have the effect of increasing the likelihood that communities will opt for extraction rather than conservation contracts at commodity frontiers where multiple frontier actors vie for people's attention. The extractive option can be particularly attractive in the short-term, which is also a decisive time frame: extractive industries' operations can themselves create the socio-economic structures that make communities dependent on the continuation of their activities and, at the same time, irremediably damage those environmental values that

[170] Violent conflict or criminality can also cause NGOs to spontaneously discontinue projects. For example, an international NGO is rumoured to have pulled its support for Itombwe Nature Reserve after several of its employees were kidnapped while returning from a site visit.

created the opportunity to engage with conservation partners (Arsel, Pellegrini and Mena, 2019). Moreover, extractive companies are subject to volatile commodity prices and intense international competition over cost margins (including the costs of doing business at a violent frontier) and might be also prove to be unreliable contractual partners in the long-term. The experience with unfulfilled contracts is likely to reinforce the scepticism towards potential future conservation initiatives.

# GENERAL CONCLUSIONS

## 1. Introduction

This thesis has addressed different aspects of the political ecology of conservation at a violent frontier. Across four empirical chapters, I have presented data from two different protected areas, Kahuzi-Biega National Park and Itombwe Nature Reserve. In this concluding section, I offer some final reflections on the cross-cutting themes touched upon throughout. The first section highlights the analytical benefits of looking at the conservation commodity frontier as part of a broader 'constellation' of frontiers that connects up to wider capitalist value networks. The second section addresses the necessity of understanding the specific national and local contexts in which the conservation commodity frontier touches ground. The third section assesses the relevance of my findings for broader debates about different conservation strategies at violent frontier regions. The fourth section offers some reflections on practical solutions for conservation in eastern DRC. The fifth and final section delivers closing reflections on how my positionality might have affected my interpretations of the results. It also reflects on how the field affected my subjective experience as a person. Potential avenues for future research are identified throughout.

## 2. Conservation as part of frontier constellations

My first overall contribution is to suggest that the implementation of environmental conservation plays out as part of wider constellations of commodity frontiers (Eilenberg, 2014). An ensemble of different commodity frontiers emerge, intersect and interact through domestic and global, typically capitalistic, production chains and networks. Thus, conservation and extraction commodity frontiers exist *within* an overarching frontier constellation, alongside numerous other commodity frontiers surrounding minerals, hydrocarbons, agriculture, rare species and genetic resources – among many others.

The individual commodity frontiers which form frontier constellations are dependent on the injection of finance from geographical regions far from where they touch ground. Some of these networks stretch across the globe. For example, although artisanal gold mining takes place in Kahuzi-Biega National Park, almost none of this gold is actually consumed in South Kivu or the DRC. The gold's value is generated by consumers in faraway markets who likely have no clue as to where or how it was brought out of the ground. Protected areas also link up to international flows of capital and markets through ecotourism initiatives, environmental financing and payments for ecosystem service projects (Brockington, Duffy and Igoe, 2008). In the case of Kahuzi-Biega National Park, for instance, a gorilla tourism program attracts people from across the world who spend hundreds of dollars on permits, guides and accommodation. Conservation and mining commodity frontiers can therefore be considered zones of multi-scalar convergence, where global systems meet local realities.

Other networks operate mainly on a within country basis and rely on domestic capital investments and geographies of consumption. At least from a global value chain perspective,

the wealth produced at domestic commodity frontiers stays in-situ, rather than accumulating the in the far-off 'core' regions of the world system Wallerstein (2011) described. For example, the charcoal extracted from inside Kahuzi-Biega National Park's highland sector is almost all consumed in the nearby urban centre of Bukavu. Multiple stakeholders benefit from this trade, yet the profits accrue primarily to local elites. Domestic commodity frontiers tend to depend on webs of power operating at local or regional levels. This insight corresponds with work by Claessens, Mudinga and Ansoms (2014, 82) on local elite involvement in land-grabbing in South Kivu. They found people's ability to access land rights was primarily contingent upon their capacity to forge beneficial relationships with the army, state agents or customary authorities – as opposed to their connections to networks on the global scale. A similar argument could be made for the charcoal trade from Kahuzi-Biega National Park, where peasants living around the park formed relationships with Batwa chiefs and the leaders of non-state armed groups to extract charcoal from within the park.

Mining and conservation commodity frontiers are often heterogenous and can be disaggregated according to their structures, scales and intensities. The conservation commodity frontier I examine has been territorialised through fortress and community conservation. In other regions of eastern DRC , the expansion of the conservation commodity frontier could be facilitated by payment for ecosystem service projects, ecotourism, debt for nature swaps, or canned hunting reserves, among a multitude of other arrangements. The global mining commodity frontier spans numerous mineral, metal and hydrocarbon resources and can expand through territorial projects at artisanal, semi-industrial and industrial scales. In chapter three, I argued systemic adaptations occur at the level of mining and conservation commodity frontiers which enable overlapping double frontiers to emerge in eastern DRC. More flexible community conservation areas and semi-industrial and artisanal mining enable commodity frontiers to coincide where strict conservation areas and industrial mining would likely exclude one another. This makes possible the expansion of mining and conservation into previously inaccessible territories, thus enabling an temporal intensification in terms of the amount of value derived from bounded territorial zones.

Future research could look at how forms of conservation other than protected areas interact with mining commodity frontiers. With $500 million recently pledged to protect the DRC's forests at COP26[171], we can almost certainly expect more REDD+ initiatives and other projects focussed on carbon sequestration to be implemented over the coming years (Windey and Hecken, 2019). This begs several questions. How do market-based forms of conservation interact with other global value chains and the frontiers they produce? What is the impact of this on localised conditions of power and authority? Another interesting angle would be to consider the impacts of community forests which give people legal titles to manage their own lands and resources. Although increasingly promoted as a more equitable conservation strategy, the effects of community forests remain little understood. Do community forests prevent the advancement of extractive commodity frontiers and enhance conservation? Or could communities form alliances with the extractive industries after receiving full land rights? Several other types of commodity frontier merit further examination. Additional studies could focus on how agriculture, cattle ranching, fisheries, palm oil and narcotics

[171] Africa Renewal COP26, 'Landmark $500 million agreement launched to protect the DR Congo's forest': https://www.un.org/africarenewal/magazine/december-2021/cop26-landmark-500-million-agreement-launched-protect-dr-congo%E2%80%99s-forest

(Hough, 2011; Campling, 2012; Van Hecken *et al.*, 2019; Kröger and Nygren, 2020) interact with conservation and mining commodity frontiers.

Some researchers suggest extraction and conservation frontiers should be viewed as flipsides of the same neoliberal coin (Fletcher, 2013). I agree that this could apply when mining firms attempt to offset environmental harms by financing conservation initiatives elsewhere (Enns, Bersaglio and Sneyd, 2019), thereby further entrenching the extractive frontier. However, I disagree with this interpretation in the broad sense. Extraction and conservation frontiers link up to a broader capitalist system, but this does not mean the two are comparable in terms of their outcomes or objectives. Like industrial mines, protected areas can have detrimental impacts for the people living in their vicinity (Agrawal and Redford, 2009; Dowie, 2011; Witter and Satterfield, 2019). However, the environmental impacts of even the most exclusionary protected areas are far from analogous to large-scale extractive operations. Conservation areas at least aim to protect ecosystems and biodiversity, even if they sometimes fail to do so. In contrast, large-scale mines purposefully desolate landscapes and ecosystems often beyond repair (Bebbington *et al.*, 2008; Acosta, 2013; Ayelazuno, 2014; Acuña, 2015).

Blurring boundaries is a necessary part of social science. However, extreme interpretations of the constructivist cannon could also prevent us from acknowledging meaningful differences that exist in practical and policy terms. These differences are especially important to consider as we fast approach planetary tipping points across a variety of resource stocks, sinks and sources (Rockström *et al.*, 2009; Masson-Delmotte *et al.*, 2021). Not all forms of commodification are one and the same or even close to being so. To return once again to the work of Castree (2003, 290), we therefore need to understand the 'material differences between different commodities and the effects of their commodification.' This will require additional research to differentiate the form and effects of individual commodity frontiers while acknowledging the limitations of studying frontiers in isolation. Investigating intricate dynamics where frontiers converge ultimately requires a balance between abstraction and specificity, between the broad strokes of theory and the fine grains of empirics.

## 3. Conservation, the nation state and violence

My second overarching contribution is to emphasise the unique contact points between the conservation commodity frontier and the nation state in a region where government capacity is fractured. In DRC and other some Central African states, state agents can at once provide security and perpetuate predation and insecurity. This often leads to a situation whereby no single actor or institution has established clear hegemonic control, let alone delivers effective bureaucratic functions. Within the larger Congolese state, there is the peripheral region of eastern DRC. Large swatches of this territory, including parts of protected areas, are controlled by non-state armed groups. The expanding conservation commodity frontier – and the violence this can generate – plays out within these unique national and regional contexts.

In eastern DRC, protected areas have become perpetually violent spaces where multiple (often armed) actors hide out, extract resources and vie for power. In chapter five, I described how the socio-structural features of the landscape in which Kahuzi-Biega National Park is located produce motivations and opportunities for armed mobilisation. These structures

include the legacies of poverty and insecurity, the geographical features of the park, and the presence of illicit networks. As per Anthony Giddens (1984) theory of structuration, some of these structures are reproduced, and in some cases reshaped, by the unintended consequences of individual agency. I provided two examples of rebel leaders who have reproduced the socio-structural conditions that give rise to armed mobilisation. I gave another example of a potential rebel leader who has so far resisted the call to arms, despite the structural pressure on him to do so. These dynamics constrain the organisational agency of state conservation departments and conservation NGOs, leaving room for little else than a militarised approach. Overall, the impact of militarised conservation on the structuration of armed mobilisation and violence in Kahuzi-Biega National Park is probably mixed: at once introducing armed eco-guards into the area, creating a staging ground for wider conflict to play out, and providing a degree of security for some people living at the forest's edge.

Although I did not include a chapter on armed group mobilisations in Itombwe Nature Reserve, a similar point could be made for this case study. As in Kahuzi-Biega National Park, the armed groups located inside the reserve did not form to resist conservation policy. Indeed, many of them existed years before the reserve was even established. In a report on violence in the Hauts Plateaux, a mountainous region which includes parts of Itombwe Nature Reserve, Verweijen et al (2021) shed light on the mechanisms which drive violence in the area. First, discourses of tribal conflict and indigeneity attribute collective responsibility for violence and stimulate cycles of revenge. Second, the perceived partiality of the Congolese army and the presence of armed groups considered 'ethnic' engenders counter-mobilisations. Third, the tendency of politico-military elites to resort to force maintains the broader structure within which violence is reproduced. Fourth, actors operating at multiple scales feed into and exacerbate the conflicts. These mechanisms exist independently from conservation policy, even if some members of armed groups originate from villages inside the reserve.[172] Geographical features also make the reserve an ideal stage for armed groups to seek refuge, mobilise and prepare for battle. Because conservation has been pursued through a largely non-violent approach, the potential for confrontations between eco-guards and armed groups has been limited. However, this has also diminished the degree to which conservation is taken seriously. Banned resource uses, for instance, are still widespread inside the reserve's core zone. If environmental managers decide to properly enforce new regulations established through the reserve, they will probably have no other option than through (military) force.

Returning to my first contribution: frontier constellations are likely to contribute toward unique dynamics of violence in weak states like DRC. The presence of 'lootable' mineral resources inside protected areas, for instance, provide incentives for people to engage in armed activity to gain control over the benefits of those resources. Mining activities at semi-industrial and industrial scales could provide elites with opportunities to form alternative extraction contracts that they might, in the short-term, find more tempting than those offered by conservation projects. However, these scales of mining can also provoke armed resistance which, as I showed in chapter three, could interact with local responses to protected area designation. At the same time, conservation projects often generate

[172] The leaders of some groups were at times themselves even supportive of conservation efforts in the region. However, this was of course partly down to the fact that – so far – the reserve does not pose a significant threat to their political economic interests or resource uses.

additional grievances that feed into armed mobilisations around high-value resources. This could occur when park guards confront armed groups protecting illegal resource extraction inside park boundaries. However, more often than not, the violence taking place around South Kivu's protected areas is only indirectly related to conservation governance: when armed groups clash over the control of illicit gold mining sites, for example. Whether armed actors side with conservation or extraction is not pre-determined (see also Büscher and Davidov, 2013). They may collaborate with mines or protected areas (or neither) depending on the wider structure of political opportunities available to them. In Itombwe Nature Reserve, some armed actors expressed support for formal conservation efforts as a way to keep rival social groups out of the forest. In Luindi chiefdom, an armed group sided with an industrial mining company (rather than the reserve) after having been paid to provide security to its operatives. Additional research should further unpack such complex relationships taking place at the extraction/conservation nexus in regions where territorial control is fragmented.

Previous studies suggest overlapping frontiers serve to consolidate state power and territorial control (Eilenberg, 2014; Käkönen and Thuon, 2019). As a counterpoint to these works, I argue the absence of state capacity can lead to the convergence of conservation and mining. There are three reasons for this. First, the Congolese state does not properly enforce the boundaries of territorial zones through which commodity frontiers are organised: i.e. protected areas and mining sites. This is made all the more difficult because non-state armed groups control large swathes of territory in the region, limiting the capacity of the state to enforce its laws. Second, officials in Kinshasa designate concessions without consideration of the permits allocated by rival ministries (Javelle and Veit, 2012), i.e. mining permits are frequently allocated on top of areas designated for conservation and vice versa. As a result, negations over the management of concessions are left to play out at the local level (see Hardin, 2011). Third, the existence of a parallel shadow state means numerous high-level state operatives are often implicated in illicit activities and maintain connections with non-state armed groups. In chapter three, I described how FARDC soldiers protect Chinese mining companies at the edge of Itombwe Nature Reserve. In turn, the linkages between the armed groups mining inside Kahuzi-Biega National Park and powerful actors in Bukavu are addressed in chapter five. These factors work in conjunction with adaptations at the level of the commodity frontiers themselves. In terms of future research, it would also be worth examining the spread of double frontiers in less conflictual settings, such as in Ghana or Tanzania, but where the shadow state is still strong.

The expansion of frontier constellations generates what Nealon (2008) describes as an 'intensification of power'. This involves the extraction of more and more value from the resources located within individual parcels of land over shorter and shorter periods of time (Büscher and Davidov, 2013). However, this intensification does not necessarily shore up state hegemony or create state-like enclaves governed by private actors (see Ferguson, 2005; Eilenberg, 2014; Marijnen, 2018; Käkönen and Thuon, 2019). When the state is already compromised on a fundamental level, the injections of capital into frontier constellations probably result in a further pluralisation of political authority. This leads to a patchwork of indiscrete sites that are intensely entangled with localised political and social relations, and beholden to continual processes of collaboration and contestation by a multiplicity of, often armed, actors. While the disorder produced under such conditions provides opportunities for some stakeholders some of the time, it is deeply unsatisfactory for the majority. In eastern DRC, many people positively long for more hegemonic conditions to emerge. To stress-test

these observations, more comparative research is required in different state systems: stronger versus weaker. This could help to better theorize the effects of overlapping frontiers on the wider constitution of governmental and/or neoliberal power.

## 4. Evaluating conservation strategies at a violent frontier

What implications do my findings and conceptual approach have for ongoing discussions about conservation in the broader disciplines of political ecology and critical geography? In this section, I comment on three different, though related, debates surrounding the management of protected areas in violent and more peaceful regions. In consecutive order, I consider forced displacement and indigenous peoples, militarised enforcement and security, and community conservation and the devolution of regulatory responsibility.

### *4.1. Conservation, displacement and indigenous peoples*

Conservation displacements have given rise to slow and structural forms of violence that can be devastating for the people affected by them. In the case of Kahuzi-Biega National Park, not only did the Batwa lose access to their means of physical and cultural survival, they were never properly compensated or provided with new lands. The inaction of the Mobutu regime and neglect by successive governments have served to maintain the marginalisation of the Batwa for several decades now. The slow violence of the forced eviction of indigenous groups is increasingly called out by critical conservation scholars, human rights NGOs and civil society organisations. Still, decades after displacement events, we are left with a conundrum.

How do we set right past injustices while protecting ecosystems in an era of global climate change and environmental destruction? Should protected areas be left for conservation and conservation alone? Should they be dismantled altogether? Or should indigenous groups be allowed to return under certain conditions? In chapter four, I argued there are circumstances under which it might be unwise to encourage indigenous groups to go back inside protected areas. Certain colleagues, friends and people I have spoken to throughout the research process may find this viewpoint to be controversial. This is likely to be especially true for those among my interlocutors who have campaigned vociferously for protected areas to be handed back to their original owners. They often justify this with the argument indigenous peoples are best placed to conserve the resources located inside protected areas. However, the case of Kahuzi-Biega National Park provides reason to question this assumption.

Indigenous peoples do not automatically prioritise conservation. Living outside the forest, the Batwa were exposed to a different way of life. Decades after the expulsion, many of them had different priorities than their ancestors. They wanted land, money and power in the same way other social groups do. They are human beings, after all. The level of violence and destruction might not have been so extreme if more peaceful routes had been identified for them to return to the park. However, I remain sceptical of this interpretation. Wider social structures would still have been in place for the Batwa, alongside their collaborators, to exploit the park's resources. Ultimately, their return to the park contributed to the decimation of hundreds of hectares of forest. These areas may never grow back to their previous state.

Deforestation does not just affect the ability of tourists to appreciate the park's flora and fauna. With numerous rivers running down from the park, the highland sector is a critical watershed for Lake Kivu. Disappearance of the forest would likely affect the millions of people living either side of the lake, including in the cities of Bukavu and Goma. By zooming in only on the rights of what are viewed as authentically 'indigenous' communities, injustices could be aggravated among other social groups. Indeed, around Kahuzi-Biega National Park, many other groups also have legitimate claims to indigeneity.

Analytically important differences exist both within and across indigenous groups. Some members of Kahuzi-Biega National Park's Batwa community might have wanted to return to a more traditional way of life. Others likely wanted to straddle a midpoint between modernity and tradition. Others wanted something new altogether and saw going back to the park as a means to achieve that. From this angle, the act of return could be viewed more as a negotiating strategy than an end in and of itself. Despite these differences, the Batwa chiefs in favour of combining a policy of return with extraction of the park's resources came out on top. Going forward, we need to properly acknowledge the heterogenous positionalities among indigenous groups, rather than painting romanticised and homogenous images of their relationships to nature. Researchers, policy makers and activists could better comprehend the unintended consequences of certain policies as a result. They might also be able to more effectively ameliorate power disparities at the in-group level. Such an approach would bring to light the complex relations and viewpoints within Batwa groups in Kahuzi-Biega National Park, but also among indigenous communities located in other world regions.

A more nuanced view of indigenous peoples and nature is required. However, I am not suggesting the Batwa should not be blamed for the deforestation and violence which accompanied their return. Fundamentally, structures exist within which the Batwa and the park are located that provided the opportunities and motivations to engage in violence in order to contest access to resources inside the highland sector. Without wider connections to domestic and international chains of value and consumption, for instance, there would have been no point cutting trees for charcoal and timber and mining gold. However, this does not detract from my fundamental point: that a policy of return is still likely to produce inadvertent consequences where the state fails to maintain territorial control and wider networks foreground extraction. More evidence on the diverse contexts in which indigenous groups return to protected areas is required going forward. The intricate relationships between the different forms of resistance, violence and environmental change that surround such events would be a good place for such research to start. As I have previously suggested, these relationships are likely to differ between more peaceful contexts where greater state hegemony exists, and violent frontiers where territorial control is continually contested.

Claims of authentic indigeneity are about as politically charged as conservation itself. As Büscher and Davidov (2013) suggest, 'noble savage' labels not only serve to dehumanise indigenous peoples: they also provide an identity marker which indigenous leaders can (and do) strategically appropriate for political ends, 'to make alliance with, and leverage resources from, international actors – not the least of whom are representatives of international conservation organizations' (Brockington, Duffy and Igoe (2008, 121). In the case of Kahuzi-Biega National Park, the Batwa used their identity to gain access to the park's resources in the way other groups could not. They also gained the support of more powerful actors in the

process. At the same time, some local and international NGOs accessed external funding by supporting the Batwa's struggle. One armed group leader even claimed to be a Batwa in order to justify his presence in the park. Although it might be uncomfortable at times, it is essential to engage with these political dimensions of indigenous labels. Failure to do so risks missing a key component in the creative agency of marginalised groups.

### *4.2. Militarised enforcement*

Some critical conservation scholars argue for a 'green demilitarisation' of conservation (Verweijen and Marijnen, 2016; Duffy *et al.*, 2019). Others propose we need to move away from a system of protected areas enforced by park guards to a different conservation model altogether. In their book on 'convivial conservation', Büscher and Fletcher (2020) reject the idea of protected areas and instead vouch for 'promoted areas' – defined as 'fundamentally encouraging places where people are considered welcome visitors, dwellers or travelers rather than temporary alien invaders upon a nonhuman landscape' (p.163). Promoted areas, they suggest, can only exist 'within an overall context not of exploitation or productivity but on conviviality: the building of long-lasting, engaging and open-ended relationships with nonhumans and ecologies' (p.164).

There is much to appreciate about this proposal. Yet, in practice, parts of it could turn out to be rather farfetched in the context of the violent frontiers in eastern DRC. The overall convivial proposition appears to rely on a kind of ideal-type state structure where a government effectively promotes conservation and the environment backed up by a monopoly over violence. Or a situation where certain principles for common resource management are maintained (see Ostrom, 1990). However, what if the visitors, dwellers and travelers to promoted areas want to cut the forest down and establish mines, rather than engage with ecosystems and biodiversity in more positive ways? What if the context in which conservation occurs is anything but convivial, but instead, violent and extractive? More benign resource uses do exist in eastern DRC, which I found in parts of Itombwe Nature Reserve. However, resource access is mostly contested, often between armed state and non-state actors, often in ways that generate significant environmental and human harms.

The notion of promoted areas also ducks the issue of enforcement. Büscher and Fletcher (2020, 164) acknowledge not all activities and resource uses are acceptable – 'The value of biodiversity requires promotion, too, especially vis-à-vis values linked to (unnecessary or excessive) extractive and destructive types of enterprise.' As a solution to this, they recommend a new value system is built, one that 'does not depend on the destruction of nature but on "living with" nature' (p.165). However, they fail to offer a proposal for how undesirable resource uses would be excluded. I do not dispute the necessity of building a more holistic, ecologically sentient value system. Although I would suggest this is unlikely to happen anytime soon, especially in regions where violent extraction is already widespread. If some activities must be excluded inside promoted areas, then we must address certain questions. For starters, how to stop people engaging in the kinds of 'unnecessary' activities Büscher and Fletcher deem 'excessive'? If armed groups are present, then what is the alternative to militarized park guards in collaboration with the national army? We could also ask whether it is even ethical to send park rangers to some areas without armed protection?

It is also necessary to consider how to protect critically endangered species, such as South Kivu's eastern lowland gorillas, where populations have already been decimated. In regions where weapons and destructive resource uses are pervasive, how can the habitats in which these species exist be preserved? It may not be possible to wait for a more convivial conservation model to bear fruit or for an entirely new value system to emerge. Action is required *now*. At this stage, some commentators may argue I am using the *narrative* of crisis to justify coercive conservation and further state control (see Schuetze, 2015; Vasile and Iordăchescu, 2022). To them I would respond, so when is a crisis a 'crisis' and when is a crisis a 'crisis narrative'? If the destruction of Kahuzi-Biega National Park's highland sector is not a genuine conservation crisis, then I struggle to know what is. Ultimately, any realistic proposal for conservation at violent frontiers must deal with the issue of enforcement where multiple armed actors are present. There is no getting around this. Fortress conservation and its militarised enforcement have major weaknesses and, in many cases, negative repercussions for social justice. But are there any realistic alternatives in places like South Kivu?

Conservation guards could provide people with a basic degree of law and order. Around Kahuzi-Biega National Park, I interviewed many people who saw the need for military action to secure the forest. The governance of the park has likely had some positive security effects in the region around ICCN's headquarters in Tchivanga. Instead of denouncing the enforcement of park regulations, many people complained about a lack of eco-guards. Some highlighted the fragility of the park's ecosystem and explained why it needed protecting. Others were angered by the human rights abuses committed by park guards, yet still made the case for more state-led protection. In general, my informants were most often not 100% for or against militarised conservation, but rather, held mixed views about its effects. In this regard, my work chimes with previous studies showing how the defunding of fortress conservation areas could be as problematic as the violence involved in the establishment of new conservation territories (Kelly, 2014). Depending on the time and place, certain aspects of coercive conservation previously viewed in a negative light, such as the enforcement of hunting restrictions, could be perceived more favourably (Kelly and Gupta, 2016).

There has already been substantial research on the form and effects of militarised enforcement of conservation in more peaceful and, increasingly, violent environments (Marijnen, de Vries and Duffy, 2021). Still, more research is needed to understand how fortress and militarised conservation play out in regions where they are but a part of much wider political economies of violence – and the extent to which armed eco-guards reproduce or reshape the incumbent conflict dynamics. Additional comparative work is also required to consider the differences and justifications for militarised conservation where non-state armed groups are present and less violent regions where a degree of state hegemony persists. Fundamentally, I encourage future researchers to consider all sides of the debate around conservation in violent regions. In other words, to move beyond the 'for/against' dichotomy. In regions like eastern DRC, it is unrealistic to call for the demilitarisation of conservation when, as it stands, clear alternatives for the enforcement of environmental regulations do not exist. In more consensual settings, a move away from militarisation may be feasible.

*4.3. Community conservation and decentralised governance*

Some representations of militarised conservation and the realities of violence surrounding protected areas areas deserve to be critiqued. However, coercion alone will not solve the issues at the heart of modern conservation governance in frontier zones. The needs of communities surrounding protected areas need to be accounted for if we are to reduce the likelihood of violent and environmentally destructive contestations breaking out. In this regard, my argument resonates with Büscher and Fletcher (2020) when they call for a shift from 'privatised expert technocracy to common democratic engagement'.

Chapter six discussed how criticism of fortress conservation inspired a search for different approaches. I zoomed in on one of the most popular alternatives, namely, community conservation. Community conservation relies less on enforcement and more on winning people's hearts and minds. My informants working with both local and international conservation NGOs recognised the community-based approach in Itombwe Nature Reserve was at least partly influenced by the problems that surrounded fortress conservation in Kahuzi-Biega National Park. At the same time, villagers told me how they opposed the initial decree published in 2006 fearing they would be expelled from their forests like the Batwa of Kahuzi-Biega. Their protests eventually pushed reserve managers to adopt a more consensual approach. People's past experiences of protection area designation therefore influence the way in which new land is territorialised for conservation. In theoretical terms, learning and adaptation do occur at the level of the conservation commodity frontier.

Itombwe Nature Reserve represents an example of a community conservation area introduced from the outside and 'comanaged' (Brockington, Duffy and Igoe, 2008) by a coalition of NGOs in collaboration with the Congolese state. This goes in contrast to other examples of community conservation where indigenous peoples have established protected areas off their own volition, sometimes as a way to protect their lands and resources from external threats (Brockington, Duffy and Igoe, 2008). In contrast to Kahuzi-Biega National Park, a consensual approach was taken in Itombwe whereby traditional conservation rules were merged with modern conservation though a protected area divided into different land use zones. Through a participatory mapping exercise, Mulmabo areas, where custom forbade hunting at certain times of year, were incorporated into the core conservation zone. In turn, decision making authority was partially devolved to communities through the creation of conservation committees and the facilitation of community patrols.

As a mode of protected area governance, community conservation has been around since the 1980s (Roe, 2008). However, customary forms of natural resource management are ancient. Based on research on common property systems across the world, the Nobel Prize-winning economist Elinor Ostrom demonstrated how Hardin's (1968) 'tragedy of the commons' is not inevitable. To the contrary, local forms of collective resource governance have emerged in many times and places. Ostrom (1990) showed how common property regimes can function effectively, but only under certain conditions. She laid out several design principles. First, common resources need to have clearly defined boundaries. Second, the rules governing the commons should be fitted to local circumstances. Third, commons users must be able to participate in decision-making processes. Fourth, mechanisms must be in place to monitor the use of the commons. Fifth, graduated sanctions must be present to discipline rule

breakers. Sixth, systems should be established to resolve conflict where it arises. Seventh, community-based governance processes should be recognised by a higher-level authority. Eighth, community management of the commons should be nested within wider networks of cooperation. Ostrom's work marked a momentous shift in how we think about and recognise community resource management. However, there are several reasons why these principles may not be upheld in violent frontier regions.

Intersecting commodity frontiers and armed actors can disrupt traditional governance structures, including monitoring and enforcement mechanisms. States that fail to uphold a monopoly over violence, and themselves engage in illicit forms of extraction and predation, are unlikely to maintain common property regimes. In and out migration, the arrival of combatants and weapons, can also overturn customary authority. In the case of Itombwe Nature Reserve, conservation has taken place for generations through traditional methods, for example by setting aside 'Mulambo' woodlands for animals to give birth and raise their young. However, the Congolese wars disrupted this process, and many animals that once roamed Itombwe's forests have now disappeared. I do not argue against the kind of pure community management that Ostrom describes. To the contrary – wherever these systems are properly functioning they should be honoured and supported. However, the spread of violent forms of extraction in a region at the edge of state control is likely to undermine customary conservation to the extent that some outside intervention is necessary.

By decentralising regulatory responsibility, community conservation projects are often described as part of a system of governmentality, or environmentality, in the Foucauldian sense. According to Bose et al (2012, 665), governmentality is the 'association of the rationalities of the state, the technologies of power and the process of subjectification, which need to be understood in the broad sense of governing behaviour'; or in its original formulation, the 'conduct of conduct' (Foucault, 1995). In other words, they create new kinds of self-regulating subjects for whom the environment comes to constitute a 'critical domain of thought and action' (Agrawal, 2005). There are examples where the transition from more coercive to community conservation has effectively 'reined in unruly populations' in frontier regions. In Tanzania, for example, Neumann (2001, 124) observed how the state adopted a more decentralised mode of conservation because violence 'did not effectively bring surrounding communities under the control of government natural resource agencies.' Based on his research in northern India's Kumaon region, Agrawal (2005) showed how the decentralisation of responsibility for forest resource management diminished the need for state surveillance and improved ecological outcomes.

Debate continues over the extent to which community conservation can change people's subjective appreciation of nature. Itombwe Nature Reserve did not create entirely new environmental subjectivities because communities had their own customary forms of conservation decades before a protected areas was established. Challenging Agrawal's (2005) work, MacKinnon (2019) argues that pro-environmental subjectivities existed before the decentralisation of conservation governance in Kumaon, India. He stresses the agency and involvement of local people in constructing their own beliefs in relation to the environment. Cepek (2011, 501) casts doubt on whether community conservation can truly operate as a form of environmentality. Based on research on the Cofán People in the Ecuadorian Amazon, he argues that although 'community conservation projects constitute a regulatory rationale

and technique, they do not transform…subjectivity according to plan.' Rather, Cofán People 'maintain a critical consciousness of the activities, sociality, equipment, and products of scientific conservation, and they view their participation in relation to their aspirations and cultural background rather than the aims and rationales of the conservation project' (p.512).

While the power of the state in shaping behaviour, through hegemony as opposed to coercion, has long been recognised (Gramsci, 1992), some of the environmentality literature might downplay the material interests that also inform behaviour. Most community conservation initiatives do include some form of financial or developmental incentives to motivate local participation in – and acceptance of – protected area designation. Thus, environmentality could be confused with the strategic representations of seemingly 'environmental subjects' who are trying to maximise the economic benefits associated with specific positionalities. From this perspective, the establishment of community conservation areas can still affect people's subjective perceptions of nature, just perhaps not in the way environmental managers expect. By encouraging people to see their forests as a resource to provide connections to global markets and capitalist investment, community conservation could instead contribute to the further commodification of nature. However, this mentality is probably not something new to the DRC or the broader Central African region. The contractarian mindset has likely been around at least since the colonial era when chiefs would forge relationships with European settlers to access new technologies in exchange for land and resources. Without being its primal cause, the imposition of new conservation or mining projects could still serve to recapitulate this rationality in the present moment.

## 5. How to improve conservation in eastern DRC

I now consider what can be done to improve the implementation of conservation in eastern DRC. To do so, I keep a few key questions in mind. How can conservation be achieved when the state does not control vast swatches of territory and state agents are themselves involved in illicit resource uses? How can we deliver on the dual imperatives of social justice and environmental protection where violent extraction is the norm? What combination of existing and new strategies would be most effective going forward?

The majority of the solutions I offer are pragmatic and could be implemented across relatively short timescales. Critical realists may find them lacking in the terms of the more large-scale structural changes they tend to prioritise (see Proctor, 1998). I do not deny systemic change is necessary. However, I also believe it is important to bring a little pragmatism in alongside the idealism that has come to characterise many political ecologies of conservation. One way to look at the problem in eastern DRC is to approach it at the different scales I have considered in my theoretical framework – ranging from the international capitalist system through which commodities gain value, the nation state through which international actors must work, and the local level where protected areas and mines transform society and nature.

Firstly, I consider the global capitalist system in which conservation functions. Many conservation projects in eastern DRC depend on finance from corporations, private individuals, state development agencies and NGOs. At the same time, environmental managers increasingly rely upon market-based instruments to deliver environmental

protection. Political ecologists and critical conservation scholars have often critiqued the linkages between conservation and capitalism. Büscher and Fletcher (2020) take a fundamentally anti-capitalist stance. The authors argue that we need to disrupt and dislodge the structures of capitalism and global markets, which they hold primarily responsible for environmental destruction and social inequalities. A steady-state economy or system of degrowth are put forward as ways to achieve this (see also Jackson, 2009; Kallis *et al.*, 2020).

For conservation to succeed in the long-term in eastern Congo, we must undoubtedly rethink our relationships to economic growth and capitalism globally. However, we also need to consider what can be done at shorter time scales. Conservation organisations are likely to continue to operate as part of structures they did not create, a situation they have only limited power over. In reality, environmental managers will have few other options than to access funds as part of a global system of value for years to come. But more than this, putting a rapid end to all connections between capitalism and conservation could end up creating more problems than it solves. By prioritising systemic changes while neglecting more localised efforts – for instance, the enforcement of conservation regulations – we could fail to prevent extinction events over shorter periods. In this sense, much of South Kivu's biodiversity could still be lost on the transition to a more harmonious, indeed convivial, future. A new global economic model therefore needs to be built in conjunction with short-term policies to ensure conservation succeeds on the ground – a topic I will come to at the end of this section.

The issue of mining inside protected areas ultimately requires international action to reduce the demand for metals, minerals and hydrocarbons. However, as the consumption of 'rare earth' metals continues to rise driven by a green energy revolution, this reduction is unlikely to happen anytime soon. Still, some practical interventions exist which could improve conservation outcomes. For starters, it might be possible to bolster mineral traceability initiatives. This could help prevent minerals from inside protected areas entering international supply chains. However, such a policy must not cut eastern Congo off from global mineral markets entirely, as occurred after the US government implemented its Dodd Frank regulation in 2011 (Geenen and Radley, 2013). This would risk further impoverishing the hundreds of thousands of people economically dependent on artisanal mining in eastern DRC. There may be a case to allow minerals from inside protected areas extracted through artisanal methods to enter global markets. However, this should only be allowed so long as certain environmental and social standards are met. Ultimately, the impact of traceability initiatives is going to be limited by shadow state networks and the leakage of illicit minerals into certified supply chains. When it comes to industrial and semi-industrial mining activities, they should be kept out of protected areas altogether. International NGOs and governments must ramp up the pressure on mining companies to act responsibly in this way.

Domestic commodity frontiers might be even more difficult to manage. People living at the edge of South Kivu's protected areas are typically poor and marginalised. Many of them are dependent on renewable resources found within those areas, including resources traded on domestic commodity networks, for their livelihoods. As long as populations of large urban centres do not have a sustainable source of energy for cooking or construction materials, the demand for charcoal and wood will remain high from inside and outside of protected areas. To ensure climate mitigation and biodiversity conservation, we need to move people away from charcoal altogether, at least in the medium-term. Over shorter time scales, NGOs and

international development agencies could focus on increasing the uptake of fuel-efficient cook stoves to reduce the total quantity of charcoal consumed (Wallmo and Jacobson, 1998). They could also provide people living around protected areas with alternative energy sources. For example, Virunga National Park has established hydroelectric dams to provide electricity for communities living around its boundaries.[173] As is the case with certain mining activities, domestic commodity frontiers are likely to be almost impossible to properly regulate as long as the shadowy interests which determine their functioning remain intact. The issue of extractive commodity frontiers overlapping with protected areas is going to require a much wider project of structural reform at the level of the Congolese government itself. Unfortunately, this is a long way off at present.

Secondly, I consider the nation state through which capitalist flows are channelled. At least part of the reason conservation is so challenging in eastern DRC, is because the government does not control vast swathes of territory. When the government does maintain a semblance of authority, state agents frequently act to maintain and even expand illicit forms of extraction. Take the case of armed mobilisations over mining sites in Kahuzi-Biega National Park. This issue will not be resolved as long as the networks linking armed groups to powerful politicians and businessmen in Bukavu and international markets remain operational. As stated above, these networks can function even when mineral traceability initiatives are in place. The same can be said of the Chinese mining sites at the edge of Itombwe Nature Reserve, which are protected by soldiers from the national army. These sites were established through local power brokers, without correct legal documents, and in the face of considerable local opposition. This informality makes them almost impossible to shut down.

Various NGOs and Congolese civil society organisations have played and continue to play an important role in terms of advocacy. Where government officials are involved in activities that damage ecosystems and biodiversity, they need to be held to account at multiple levels – from the local, the national, to the international. In several instances this is already happening. For example, the environmental civil society for South Kivu denounced FARDC's involvement in the illegal extraction of 'red woods' from inside Itombwe Nature Reserve. They also generated awareness around Banro's attempts to establish gold prospection sites inside the reserve.[174] Effective communications campaigns through local radio and online media brought these issues into the public consciousness.[175] In the latter case, Banro has since stopped its exploration activities inside the reserve. Civil society actors need to be supported as much as possible to hold powerful state and private actors accountable for environmental crimes. This requires long-term commitment, technical support and external financing.

International NGOs, development agencies and multilateral institutions can help build the capacity of the Congolese state. Frontier overlaps are so extensive because government ministers in Kinshasa allocate concessions on top of one another without adherence to the laws surrounding mining, conservation and the environment (Javelle and Veit, 2012). They essentially hand out permits, sign decrees and then let negotiations over their management play out at the local level (see Hardin, 2011). To untangle the complex web of territories which

[173] See: http://virungapower.com/#virunga-power
[174] See: https://jambordc.info/8882/
[175] See: https://actualite.cd/2020/07/24/sud-kivu-la-societe-civile-environnementale-alerte-sur-lexploitation-illegale-des-bois

has emerged, it would be necessary to determine when mining or conservation (or a mixture of both) should take precedence. However, high-level state officials are probably not incentivised to take the actions required to do so. The different units, levels and actors within the state system all likely want 'a piece of the cake' delivered by international investment flows for conservation and mining. As a result, no single unit, level or actor is willing to cede power over concessions in such a way that they could be separated out. Frontier overlap is therefore only likely to be addressed as part of a wider process of governmental reform.

Political economic incentives also prevent clarification of DRC's laws around mining, conservation and the environment. Different laws contain articles that prohibit mineral extraction inside protected areas. Article 6 of the 2018 Mining Code states that 'mining, quarrying rights or artisanal mining zones' must not be granted in protected areas. Article 25 of the 2014 Law Relative to the Conservation of Nature states that all activities incompatible with the objectives of conservation are prohibited in protected areas. In addition, 'subject to exemptions in this law', any mineral exploitation rights granted within the boundaries of protected areas and their buffer zones[176] are 'null and void'. Article 74 provides detail on penalties for breaking this law. It states, 'any person who is found to be engaging in mining or quarrying activities inside a protected area is liable to pay a fine of one hundred million to one billion Congolese francs'. On top of this, any public official found responsible for authorising such activities will 'be sentenced to six to twelve months in prison and required to pay a fine of ten to fifty million Congolese francs'. Although Article 33 of the Law on the Fundamental Principles Relating to the Protection of the Environment does not specifically refer to mining in protected areas, it does state that 'Any activity likely to harm the environment is prohibited in protected areas'. Given the negative environmental impacts of extractive projects, this presumably includes mineral and oil extraction.

Areas of ambiguity also exist. Article 29 of the 2014 Law Relative to the Conservation of Nature states mining activities may be permitted in protected area buffer zones as long as those activities do not negatively impact protected areas. A decision to allow extraction to take place in a buffer zone is subject to a preliminary environmental and social impact study. The problems here are twofold: (a) the locations of many buffer zones in DRC are yet to be properly established, and (b) due to both the vested economic interests of Congolese elites and lack of state capacity, it is unlikely that comprehensive environmental and social impact assessments would take place under present conditions. This could easily result in destructive mining activities going ahead not only in buffer zones, but also in areas deemed critical for biodiversity conservation. Although it is illegal for the government to allocate mining permits or for mining activities to take place within the boundaries of protected areas, it is also possible to declassify a protected area in order to allow mining activities to proceed.

According to Article 35 of the Law Relative to the Conservation of Nature, 'where unforeseen and exceptional circumstances seriously affect the natural features of a protected area or for reasons of public interest, the government may decide to partially or totally decommission it'. As to what constitutes 'unforeseen and exceptional circumstances' and 'reasons of public

[176] According to Article 2 point 47, a buffer zone is an 'area between the central part of a protected area and the surrounding terrestrial or marine landscape, which protects the network of protected areas of potentially negative external influences, and which is essentially an area of transition.'

interest', the law is unclear. When a protected area is found to overlap with industrial exploration or extraction permits, how should this be dealt with? Should the permit be invalidated automatically, or are there circumstances (for example when artisanal mining permits converge with protected area boundaries) where a degree of extraction could continue? The problem with grey areas such as these is that they leave the law open to interpretation, a situation exacerbated in places like DRC where rent-seeking and corruption are common-place. This is particularly the case when it comes to the extractive sector. The law needs to clearly layout the social and environmental standards that mining companies are expected to adhere to. Following that, a legal mechanism to properly monitor compliance, enforce regulations and sanction rule-breakers should be established. The problem is that at present it is probably not in the interests of political elites to address these issues.

Thirdly, I consider the different approaches used to secure conservation areas on the ground in eastern DRC. I am neither in favour of nor against fortress or community conservation in principle. The two now often exist together in hybrid-type arrangements. Most fortress conservation areas typically incorporate a degree of local participation and deliver limited development projects for the people living around them. In the case of Kahuzi-Biega National Park, WCS and GIZ have implemented various development projects in villages surrounding the park. WWF also worked alongside ICCN to increase local participation in decisions regarding the management of the park through the CCCs. However, these committees have now all but disappeared due to lack of funding. In Virunga National Park, electrification projects are intended to improve people-park relations and reduce the use of charcoal from inside the park. In turn, community conservation areas often include core conservation zones where no local resource uses are allowed, which (at least in theory) resemble fortress conservation areas. This is true in the case of Itombwe Nature Reserve, although conservation regulations are still not yet enforced in the core ecological zone. Going forward, I believe some sort of blended approach will continue to be necessary for conservation in eastern DRC. The challenge is how to get the balance right for different protected areas.

I am hesitant to call for the full-scale demilitarisation of conservation or the dissolution of fortress conservation areas. There are two reasons for this: first, clear alternatives are in scant supply, and second, the unintended consequences of demilitarisation may be even worse than the negative effects of militarised conservation itself. Enforcement usually occurs through the use of 'external' armed eco-guards as is the case in Kahuzi-Biega, Garamba and Virunga National Parks (Verweijen and Marijnen, 2016; Titeca and Edmond, 2019; Simpson and Geenen, 2021). Considering the human rights abuses sometimes committed by conservation guards, a system needs to be established to better train them in non-violent methods of de-escalation. This could improve the level of trust between communities, state conservation authorities and international NGOs. Still, there are always going to be times when force is the only viable option to secure conservation sites. Another approach would be to combine 'external' discipline through armed eco-guards with 'internal' enforcement mechanisms, such as through customary institutions. This is essentially what is envisaged for Itombwe Nature Reserve. Still, popular or traditional forms of justice can sometimes be even more extreme than punishments meted out by state forces (Verweijen, 2015). It is important not to fall into the trap of assuming local/traditional would always equal good and external/state would always equals bad. Upsides and downsides exist either way.

In several protected areas in eastern DRC, armed groups are tackled through joint operations between FARDC and armed eco-guards. This can lead to problems when non-state armed groups have political and economic links to members of the state military. This, in turn, reduces the likelihood of those groups being kept out of protected areas for any extended period of time. By collaborating with FARDC, conservation actors could associate themselves with past abuses committed by the military and stoke further resistance to protected area management (see Verweijen and Marijnen, 2016). Many armed groups in eastern Congo also maintain close linkages with civilian populations and enjoy strong local support. An attack on an armed group can therefore be perceived as an attack on the community. Complicating factors considered, protected areas clearly still cannot be entirely out-of-bounds for the state military, given the security threats armed groups pose to nature and civilian populations. However, the military really should only be deployed as a last resort, once all other options have been exhausted. If military intervention is deemed necessary, communities should be informed why operations are being conducted in the area and provided with a mechanism to report abuses. Of course, this is far easier to write about in a PhD than to implement.

Indigenous people dispossessed of their lands and resources inside protected areas must be supported by ICCN and its international partners. Appropriate actions need to rectify the injustices committed against them and compensate their losses. This will involve several decisions. First, we need to carefully evaluate whether or not it makes sense to return the lands inside protected areas to their previous owners. If a policy of return can be achieved in a way which does not spark wider violence and destructive extraction, then mechanisms need to be developed for how indigenous peoples can access – or even live within – protected areas. It may also be possible to declassify some parts of national parks to create multiple use zones. However, none of this will be simple process. It is not always clear who is indigenous and who is not. Some people may piggy back off indigenous identities in order to access land and resources inside protected areas. Some indigenous peoples might see conservation as of secondary importance to resource extraction and personal accumulation. Moreover, state officials might seek alliances with indigenous peoples in order to justify the declassification of protected areas and open up new frontiers for extraction. Overall, the policy of return is likely to have a number of unintended consequences, which are difficult to predict.

If the costs of returning people to protected areas outweigh the benefits, how can we still ensure the needs of the communities historically marginalised by conservation? This is a crucial question for protected areas in eastern DRC and other parts of the world. Alternative lands would need to be identified and purchased in full and land titles handed over to the affected populations. Additional compensation – what Büscher and Fletcher (2020) describe as 'historic reparations' – could be paid out for past damages. However, who exactly should be responsible for funding and who should receive the payments is sometimes difficult to discern. Should Belgium, the Congolese state, international conservation NGOs, or private individuals pay up in the case of Kahuzi-Biega National Park? Depending on the amount of compensation provided, how many people could feasibly receive payments? How can we prevent elites from capturing the lion's share of whatever reparations are provided? The weakness of the Congolese state makes questions like these even more difficult to answer. Decisions around compensation will inevitably need to be considered on a case-by-case basis.

It is without doubt important conservation projects compensate people for the loss of income derived from the resources and lands inside protected areas. However, it is equally important not to make promises that cannot be kept. Elevating expectations may be an effective way to persuade people to support community conservation to begin with (Massarella *et al.*, 2018). However, there are likely to be perverse consequences when expectations are left unmet. The issues of compensation and management of expectations are particularly important to consider in regions where multiple commodity frontiers intersect. People who become disillusioned with the conservation projects may turn their attention toward other frontier actors and industries, such as mining companies, in their search for employment, development and security. This would almost certainly generate harmful environmental impacts. Compensation should not be merely dangled as a carrot to secure acceptance of protected areas. Even promises made with the best intentions may end up producing an adverse outcome if not properly thought through. Thus, the terms of compensation must be realistic, clearly communicated, and properly budgeted for in advance of any guarantees being made. Fundamentally, a detailed understanding of the local context is first required.

We need to do more than better manage issues around enforcement and compensation to improve conservation at violent frontiers. Communities must be brought into decisions concerning the management of national parks and nature reserves. This has the potential to enhance their support for conservation and integrate significant local knowledge into protected area governance. Still, it will be impossible to please everyone all of the time. There are always winners and losers when it comes to decisions about how to manage land and resources. The trade-offs inherent to conservation should therefore be acknowledged up front, rather than covered up under the false promise of devolution. As a result, the views of conservation organisations and local communities will sometimes converge, and at other times they will not. There will be occasions when the needs of local populations come before ‘pure’ conservation objectives. There will be other occasions when conservation comes before the preferences of local people. A degree of iteration and adaptation also needs to occur as strategies change in line with evolving preferences at the local level. None of this will be easy. It will take time, patience and, ultimately, investment: all things that are in short supply in Congo’s restive eastern provinces. But if we succeed, it will be worth the wait.

## 6. A final note on self and reflexivity

In a qualitative study of the sort I have conducted, the identity and positionality of the researcher affect their interpretation of the results, the conclusions drawn and the practical recommendations provided. At the same time, the fieldwork experience fundamentally changes the researcher’s perceptions of the topics at hand, the world, and their place in it. This final section reintroduces the ‘personal voice’ I brought into the methodology and offers some closing reflections based on my experiences in eastern DRC.

My past and present inevitably influenced my interpretations and conclusions. I have not lived in Congo for an extended period. Whenever I wanted, I always knew I could leave tricky situations and return to my comfortable life in Europe. The Batwa of Kahuzi-Biega and the people living in the remote mountain villages of Itombwe Nature Reserve cannot leave. They must stay and face the immense challenges both they and their ancestors have long faced at

a violent frontier. In this sense, my positionality makes it easier for me to judge how conservation should be done (or not done) in South Kivu. If someone else had conducted the research, their conclusions would undoubtedly differ. That said, all of what I have argued was at some point communicated to me by Congolese people themselves, including those living in and around protected areas. Still, I have no doubt advanced opinions and conclusions which will infuriate some of my research participants, colleagues and readers. I hope we can continue to agree, disagree and nuance each other's perspectives long into the future.

Looking back, I notice how so much of this experience has been about overcoming my fantasies and stereotyped images of Congo – but also of myself. During the research process, I underwent several subjective shifts. I discovered the practice of conservation is not some romantic, pure and noble endeavour, but something messy, contested, often violent – an abstract idea meaning many different things to different people. In turn, as much as the reality of conservation is not as 'good' as a pre-fieldwork Fergus expected, neither is it all 'bad'. Yes, protected areas have a legacy of violence, displacement and marginalising effects in South Kivu. Nevertheless, they are also held in positive regard by many Congolese in towns and rural areas. Some people, perhaps misguidedly, view parks and nature reserves as a potential source of development. Others are immensely proud of their country's ecosystems and biodiversity, while recognise its unique role in tackling global climate change. Like most things in life, people can at once maintain favourable and unfavourable attitudes toward conservation in DRC. They see its importance without discounting the need for change.

The fieldwork experience also forced me to address my pre-conceived ideas about conflict and violence. Of course I knew armed groups perpetrate human rights abuses and violence. I did not realise they also provide security, access to resources, and enjoy strong local support in some places. At the same time, 'indigenous' labels do not preclude people from behaving in exploitative and extractive ways. Indigenous groups' resistance to conservation can be violent, characterised by deep internal power struggles, alliances with armed groups, and the pursuit of personal interest. Good guys vs bad guys narratives simply do not stack up in this context. Inspired by Lombard and Tubiana (2020), I conclude that moralising frames are probably unhelpful for understanding the political ecology of conservation at violent frontiers. One of my most significant personal achievements has been to see the reality of conflict and violence more for what they are, rather than for what I wanted them to be. I hope my writings can go some way to helping others on this journey – which I have only just begun.

Before fieldwork, I saw myself as a swashbuckling anthropologist. With an inflated sense of self-belief, I envisioned myself fearlessly navigating jungles, swamps and mountains in search of corrupt state officials, rebels and forest peoples. Alas, this turned out to be a mere fiction of my imagination. Far from my idealised vision for Fergus 'the fieldworker', the research put me in contact with intense lonelines and exhaustion, boredom and anxiety – all to degrees I am still reluctant to admit. Sometimes I questioned why I ever set-out on this project. After having been arrested by state authorities in a remote village at the edge of Itombwe Nature Reserve, I uttered a certain four-letter word, before shouting 'Congo!' I would ask myself almost every day, 'Why didn't you keep that fancy communications job in London?' I am glad I did not listen to these voices. Still, that does not take away from their significance at the time. Upon returning to Europe, my engagement with the parts of myself revealed through this journey has been difficult but transformative, uncomfortable but also healing.

I have come to realise how I tend to manage my anxieties through a binary view of the world. In other words, there is a wrong and there is right. The task of life, I thought, is to stay firmly on the former and to condemn those people, places and things on the latter. But people living under the legacies of violence – be that of colonisation and war in Congo or of European conflicts past and present – must find ways to cope. They adopt survival strategies which are far from optimal, but enable them to get by moment to moment. This is not just true in eastern Congo. People living in all parts of the world manage anxiety through routines which can be profoundly damaging to themselves and others, but still make sense at specific points in time. Distress creates distress. We all play a part in reproducing the broader structures that lead to environmental, political and social crises in Central Africa and elsewhere. With a bit of insight and resource, we can reshape those structures, even just a little bit. By engaging emotionally with this PhD process, I am convinced lasting and positive change comes not through judgement but curiosity, understanding and sharing. This does not mean we should avoid disagreement, but perhaps we could begin to disagree a bit more agreeably. Although I have no doubt at points failed to do so, I have done my best to maintain this spirit of balance and measure in my writing. Whether I have achieved this is for my readers alone to judge.

To bring this journey to a close, I turn to anyone who has managed to read this far. The last four years have profoundly changed how I view myself, South Kivu and the wider world. In taking the time to read this work, I hope you have learned something about the transformations – ethical, emotional, physical and intellectual – I have undergone to reach this point. You might also have come to view the story of conservation, extraction and violence in eastern DRC in a new and refreshing light. As I have expressed, this process has forced me to overturn many of my fantasies and projections. However, perhaps there is one fantasy I can keep hold of even now: that is, the fantasy of illuminating a small part of social reality – a ‘frontier’, if you will – that previously remained hidden or only partially understood.

# BIBLIOGRAPHY


Acosta, A. (2013) 'Extractivism and neoextractism: two sides of the same curse', in Lang, M. (ed.) *Beyond Development: Alternative Visions from Latin America*, pp. 61–86.

Acuña, R.M. (2015) 'The politics of extractive governance: Indigenous peoples and socio-environmental conflicts', *The Extractive Industries and Society*, 2(1), pp. 85–92. doi:https://doi.org/10.1016/j.exis.2014.11.007.

Adams, J.S. and McShane, T.O. (1996) *The Myth of Wild Africa: Conservation Without Illusion*. University of California Press.

Adams, W.M. and Mulligan, M. (2003) *Decolonizing Nature: Strategies for Conservation in a Post-colonial Era*. London: Earthscan.

Africa Progress Panel (2013) 'African Progress Report: Stewarding Africa's Natural Resources for all'. Available at: https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9fff/1470835029000/2013_African+Progress+Panel+APR_Equity_in_Extractives_25062013_ENG_HR.pdf.

African Union (2009) 'African Mining Vision'. African Union. Available at: http://www.africaminingvision.org/amv_resources/AMV/Africa_Mining_Vision_English.pdf.

Agrawal, A. (2005) *Environmentality: Technologies of Government and the Making of Subjects*. Durham: Duke University Press.

Agrawal, A. and Gibson, C.C. (1999) 'Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation', *World Development*, 27(4), pp. 629–649. doi:https://doi.org/10.1016/S0305-750X(98)00161-2.

Agrawal, A. and Redford, K. (2009) 'Conservation and Displacement: An Overview', *Conservation and Society*. Wolters Kluwer Medknow Publications.

Almudi, T. and Berkes, F. (2010) 'Barriers to empowerment: fighting eviction for conservation in a southern Brazilian protected area', *Local Environment*, 15(3), pp. 217–232. doi:10.1080/13549830903575570.

Angrosino, M. (2007) *Doing Ethnographic and Observational Research*. SAGE.

Ansoms, A. (2013) 'Dislodging Power Structures in Rural Rwanda: From "Disaster Tourist" to "Transfer Gate"', in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical Challenges for Field Research in Africa: The Story Behind the Findings*. London: Palgrave Macmillan UK, pp. 42–56.

Arsel, M., Hogenboom, B. and Pellegrini, L. (2016a) 'The extractive imperative and the boom in environmental conflicts at the end of the progressive cycle in Latin America', *The Extractive Industries and Society*, 3(4), pp. 877–879. doi:10.1016/j.exis.2016.10.013.

Arsel, M., Hogenboom, B. and Pellegrini, L. (2016b) 'The extractive imperative in Latin America', *The Extractive Industries and Society*, 3(4), pp. 880–887. doi:10.1016/j.exis.2016.10.014.

Arsel, M., Pellegrini, L. and Mena, C. (2019) 'Maria's paradox and the misery of missing development alternatives in the Ecuadorian Amazon', in Shaffer, P., R. Kanbur, and R. Sandbrook (ed.) *Immiserizing Growth: When Growth Fails the Poor*. Oxford: Oxford University Press, pp. 203–225. doi:10.1093/oso/9780198832317.001.0001.

Ayelazuno, J.A. (2014) 'The "new extractivism" in Ghana: A critical review of its development prospects', *The Extractive Industries and Society*, 1(2), pp. 292–302. doi:10.1016/j.exis.2014.04.008.

Bacirongo, I. and Nest, M.W. (2015) *Still a Pygmy: The Unique Memoir of One Man's Fight to Save His Identity from Extinction*. Finch Publishing.

Bakonzi, A. (1982) *The Gold Mines of Kilo-Moto in Northeastern Zaire: 1905-1960. PhD Dissertation.* Madison: University of Wisconsin-Madison.

Balint, P.J. (2006) 'Improving Community-Based Conservation Near Protected Areas: The Importance of Development Variables', *Environmental Management*, 38(1), pp. 137–148. doi:10.1007/s00267-005-0100-y.

Barney, K. (2009) 'Laos and the making of a "relational" resource frontier', *Geographical Journal*, 175(2), pp. 146–159. doi:10.1111/j.1475-4959.2009.00323.x.

Barume, A.K. (2000) *Heading Towards Extinction?: Indigenous Rights in Africa : the Case of the Twa of the Kahuzi-Biega National Park, Democratic Republic of Congo*. Copenhagen: IWGIA.

Bayart, J.-F. (2009) *The State in Africa: The Politics of the Belly.* Second Edition. Cambridge: Polity Press.

Bayart, J.-F., Ellis, S. and Hibou, B. (1999) *The Criminalization of the State in Africa*. Oxford: James Currey Publishers.

Bayat, A. (1997) 'Un-civil society: The politics of the "informal people"', *Third World Quarterly*, 18(1), pp. 53–72. doi:10.1080/01436599715055.

Beazley, K. (2009) 'Interrogating Notions of the Powerless Oustee', *Development and Change*, 40(2), pp. 219–248. doi:10.1111/j.1467-7660.2009.01513.x.

Bebbington, A. *et al.* (2008) 'Contention and Ambiguity: Mining and the Possibilities of Development', *Development and Change*, 39(6), pp. 887–914. doi:10.1111/j.1467-7660.2008.00517.x.

Begley, L. (2013) 'The RPF Control Everything! Fear and Rumour under Rwanda's Genocide Ideology Legislation', in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical*

*Challenges for Field Research in Africa: The Story Behind the Findings*. London: Palgrave Macmillan UK, pp. 70–83.

Berckmoes, L. (2013) 'Dealing with Deceit: Fieldwork Encounters and Lies in Burundi', in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical Challenges for Field Research in Africa: The Story Behind the Findings*. Hampshire: Palgrave Macmillan, pp. 123–138.

Bhaskar, R. (1997) *A Realist Theory of Science*. London: Verso.

Blaikie, P. (2006) 'Is Small Really Beautiful? Community-based Natural Resource Management in Malawi and Botswana', *World Development*, 34(11), pp. 1942–1957. doi:https://doi.org/10.1016/j.worlddev.2005.11.023.

Bluwstein, J. and Lund, J.F. (2018) 'Territoriality by Conservation in the Selous–Niassa Corridor in Tanzania', *World Development*, 101, pp. 453–465. doi:10.1016/j.worlddev.2016.09.010.

Bose, P., Arts, B. and van Dijk, H. (2012) '"Forest governmentality": A genealogy of subject-making of forest-dependent "scheduled tribes" in India', *Land Use Policy*, 29(3), pp. 664–673. doi:10.1016/j.landusepol.2011.11.002.

Bouka, Y. (2013) 'Nacibazo, "No Problem": Moving Behind the Official Discourse of Post-Genocide Justice in Rwanda', in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical Challenges for Field Research in Africa: The Story Behind the Findings*. London: Palgrave Macmillan UK, pp. 107–122.

Boyer, M. (2015) 'Nature Materialities and Economic Valuation: Conceptual Perspectives and their Relevance for the Study of Social Inequalities'. doi:10.17169/refubium-23397.

Brockington, D. (2002) *Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania*. 1st publ. Oxford: The International African Institute (African issues).

Brockington, D. (2004) 'Community Conservation, Inequality and Injustice: Myths of Power in Protected Area Management', *Conservation and Society*, 2(2), pp. 411–432.

Brockington, D., Duffy, R. and Igoe, J. (2008) *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*. London: Routledge.

Brockington, D. and Igoe, J. (2006) 'Eviction for Conservation: A Global Overview', *Conservation and Society*, 4(3), pp. 424–470.

Brockington, D., Igoe, J. and Schmidt-Soltau, K. (2006) 'Conservation, Human Rights, and Poverty Reduction', *Conservation Biology*, 20(1), pp. 250–252. doi:10.1111/j.1523-1739.2006.00335.x.

Brockington, D.D. (2002) *Fortress Conservation: The Preservation of the Mkomazi Game Reserve,*. Oxford : Bloomington: Indiana University Press.

Brown, S. (2009) 'Dilemmas of self-representation and conduct in the field', in *Surviving Field Research*. London: Routledge.

Brubaker, R. and Laitin, D.D. (1998) 'Ethnic and Nationalist Violence', *Annual Review of Sociology*, 24(1), pp. 423–452. doi:10.1146/annurev.soc.24.1.423.

Buelens, F. and Marysse, S. (2009) 'Returns on Investments during the Colonial Era: The Case of the Belgian Congo', *The Economic History Review*, 62(S1), pp. 135–166.

Büscher, B. *et al.* (2012) 'Towards a Synthesized Critique of Neoliberal Biodiversity Conservation', *Capitalism Nature Socialism*, 23(2), pp. 4–30. doi:10.1080/10455752.2012.674149.

Büscher, B. (2013) *Transforming the Frontier: Peace Parks and the Politics of Neoliberal Conservation in Southern Africa*. Durham, NC: Duke University Press.

Büscher, B. and Davidov, V. (eds) (2013) *The Ecotourism-Extraction Nexus: Political Economies and Rural Realities of (un)Comfortable Bedfellows*. London: Routledge.

Büscher, B. and Fletcher, R. (2014) 'Accumulation by Conservation', *New Political Economy*, 20(2), pp. 273–298. doi:10.1080/13563467.2014.923824.

Büscher, B. and Fletcher, R. (2020) *The Conservation Revolution: Radical Ideas for Saving Nature Beyond the Anthropocene*. London: Verso Books.

Büscher, B. and Ramutsindela, M. (2016) 'Green violence: Rhino poaching and the war to save Southern Africa's peace parks', *African Affairs*, 115(458), pp. 1–22. doi:10.1093/afraf/adv058.

Campling, L. (2012) 'The Tuna "Commodity Frontier": Business Strategies and Environment in the Industrial Tuna Fisheries of the Western Indian Ocean', *Journal of Agrarian Change*, 12(2–3), pp. 252–278. doi:10.1111/j.1471-0366.2011.00354.x.

Castree, N. (2003) 'Commodifying what nature?', *Progress in Human Geography*, 27(3), pp. 273–297. doi:10.1191/0309132503ph428oa.

Cavanagh, C.J. and Benjaminsen, T.A. (2015) 'Guerrilla agriculture? A biopolitical guide to illicit cultivation within an IUCN Category II protected area', *The Journal of Peasant Studies*, 42(3–4), pp. 725–745. doi:10.1080/03066150.2014.993623.

Cepek, M.L. (2011) 'Foucault in the forest: Questioning environmentality in Amazonia', *American Ethnologist*, 38(3), pp. 501–515. doi:10.1111/j.1548-1425.2011.01319.x.

Chabal, P. and Daloz, J.-P. (1999) *Africa Works: Disorder as Political Instrument*. Oxford: James Currey Publishers.

Claessens, K., Mudinga, E. and Ansoms, A. (2014) 'Competition over Soil & Subsoil', in Ansoms, An and Hilhorst, T. (eds) *Losing your Land*. NED-New edition. Boydell & Brewer, pp. 82–102.

Clandinin, D.J. and Connelly, F.M. (2004) *Narrative Inquiry: Experience and Story in Qualitative Research*. San Francisco: John Wiley & Sons.

Clark-Kazak, C.R. (2013) 'Research as "Social Work" in Kampala? Managing Expectations, Compensation and Relationships in Research with Unassisted, Urban Refugees from the

Democratic Republic of Congo', in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical Challenges for Field Research in Africa: The Story Behind the Findings*. London: Palgrave Macmillan UK, pp. 96-106.

Collier, P. and Hoeffler, A. (2002) 'On the Incidence of Civil War in Africa', *The Journal of Conflict Resolution*, 46(1), pp. 13–28.

Collier, P. and Hoeffler, A. (2004) 'Greed and grievance in civil war', *Oxford Economic Papers*, 56(4), pp. 563–595. doi:10.1093/oep/gpf064.

Collier, P., Hoeffler, A. and Rohner, D. (2009) 'Beyond Greed and Grievance: Feasibility and Civil War', *Oxford Economic Papers*, 61(1), pp. 1–27.

Collins, R. (2008) *Violence: A Micro-sociological Theory*. Princeton: Princeton University Press.

Conde, M. (2017) 'Resistance to Mining. A Review', *Ecological Economics*, 132, pp. 80–90. doi:10.1016/j.ecolecon.2016.08.025.

Conde, M. and Le Billon, P. (2017) 'Why do some communities resist mining projects while others do not?', *The Extractive Industries and Society*, 4(3), pp. 681–697. doi:10.1016/j.exis.2017.04.009.

Cone, C.A. (1995) 'Crafting selves: The lives of two mayan women', *Annals of Tourism Research*, 22(2), pp. 314–327. doi:10.1016/0160-7383(94)00079-4.

Corson, C. (2011) 'Territorialization, enclosure and neoliberalism: non-state influence in struggles over Madagascar's forests', *The Journal of Peasant Studies*, 38(4), pp. 703–726. doi:10.1080/03066150.2011.607696.

Creswell, J.W. (2013) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Thousand Oaks, CA: SAGE.

Creswell, J.W. and Clark, V.L.P. (2017) *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: SAGE.

Crist, E. (2004) 'Against the Social Construction of Nature and Wilderness', *Environmental Ethics*, 26(1), pp. 5–24. doi:10.5840/enviroethics200426138.

Davidov, V. and Büscher, B. (2013) 'Introduction: the ecotourism- extraction nexus', in *The Ecotourism-Extraction Nexus*. London: Routledge.

Denzin, N.K. (2012) 'Triangulation 2.0', *Journal of Mixed Methods Research*, 6(2), pp. 80–88. doi:10.1177/1558689812437186.

Devine, J.A. *et al.* (2020) 'Narco-Cattle Ranching in Political Forests', *Antipode*, 52(4), pp. 1018–1038. doi:10.1111/anti.12469.

Domínguez, L. and Luoma, C. (2020) 'Decolonising Conservation Policy: How Colonial Land and Conservation Ideologies Persist and Perpetuate Indigenous Injustices at the Expense of the Environment', *Land*, 9(3), p. 65. doi:10.3390/land9030065.

Dougherty, M.L. (2013) ‘The Global Gold Mining Industry: Materiality, Rent-Seeking, Junior Firms and Canadian Corporate Citizenship’, *Competition & Change*, 17(4), pp. 339–354. doi:10.1179/1024529413Z.00000000042.

Dowie, M. (2011) *Conservation Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples*. Cambridge: MIT Press.

Dressler, W. *et al.* (2010) ‘From hope to crisis and back again? A critical history of the global CBNRM narrative’, *Environmental Conservation*, 37(1), pp. 5–15. doi:10.1017/S0376892910000044.

D’Souza, K. (2003) *Scoping Study on the Artisanal Mining of Coltan in the Kahuzi Biéga National Park*. Newcastle: The Diane Fossey Gorilla Fund.

Duffy, R. (2005) ‘Global Environmental Governance and the Challenge of Shadow States: The Impact of Illicit Sapphire Mining in Madagascar’, *Development and Change*, 36(5), pp. 825–843. doi:10.1111/j.0012-155X.2005.00437.x.

Duffy, R. (2010) *Nature Crime: How We’re Getting Conservation Wrong*. New Haven: Yale University Press.

Duffy, R. (2014) ‘Waging a war to save biodiversity: the rise of militarized conservation’, *International Affairs*, 90(4), pp. 819–834. doi:10.1111/1468-2346.12142.

Duffy, R. *et al.* (2019) ‘Why we must question the militarisation of conservation’, *Biological Conservation*, 232, pp. 66–73. doi:https://doi.org/10.1016/j.biocon.2019.01.013.

Durán, A.P., Rauch, J. and Gaston, K.J. (2013) ‘Global spatial coincidence between protected areas and metal mining activities’, *Biological Conservation*, 160, pp. 272–278. doi:10.1016/j.biocon.2013.02.003.

Dutta, A. (2020) ‘Forest becomes frontline: Conservation and counter-insurgency in a space of violent conflict in Assam, Northeast India’, *Political Geography*, 77, p. 102117. doi:10.1016/j.polgeo.2019.102117.

Eilenberg, M. (2014) ‘Frontier constellations: agrarian expansion and sovereignty on the Indonesian-Malaysian border’, *The Journal of Peasant Studies*, 41(2), pp. 157–182. doi:10.1080/03066150.2014.885433.

Eisner, E.W. and Eisner, P. of E. and A.E.W. (1991) *The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice*. Toronto: Teachers College Press.

Enns, C., Bersaglio, B. and Sneyd, A. (2019) ‘Fixing extraction through conservation: On crises, fixes and the production of shared value and threat’, *Environment and Planning E: Nature and Space*, 2(4), pp. 967–988. doi:10.1177/2514848619867615.

Fairhead, J., Leach, M. and Scoones, I. (2012) ‘Green Grabbing: a new appropriation of nature?’, *The Journal of Peasant Studies*, 39(2), pp. 237–261. doi:10.1080/03066150.2012.671770.

Ferguson, J. (2005) ‘Seeing like an Oil Company: Space, Security, and Global Capital in Neoliberal Africa’, *American Anthropologist*, 107(3), pp. 377–382.

Fernández-Kelly, P. and Shefner, J. (2006) *Out of the Shadows: Political Action and the Informal Economy in Latin America*. Pennsylvania: Pennsylvania State University Press.

Fetterman, D.M. (1998) *Ethnography: Step-by-Step*. Thousand Oaks, CA: SAGE.

Fisher, E. (2007) ‘Occupying the Margins: Labour Integration and Social Exclusion in Artisanal Mining in Tanzania’, *Development and Change*, 38(4), pp. 735–760. doi:10.1111/j.1467-7660.2007.00431.x.

Fletcher, R. (2010) ‘Neoliberal environmentality: Towards a poststructuralist political ecology of the conservation debate’, *Conservation and Society*, 8(3), p. 171. doi:10.4103/0972-4923.73806.

Fletcher, R. (2013) ‘Between the cattle and the deep blue sea: the Janus face of the ecotourism- extraction nexus in Costa Rica’, in *The Ecotourism-Extraction Nexus*. London: Routledge.

Flummerfelt, R. (2022) *To Purge the Forest by Force: Organized violence against Batwa in Kahuzi-Biega National Park*. London: Minority Rights Group, pp. 1–89.

Foucault, M. (1995) *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.

Gadgil, M., Berkes, F. and Folke, C. (1993) ‘Indigenous Knowledge for Biodiversity Conservation’, *Ambio*, 22(2/3), pp. 151–156.

Galtung, J. (1969) ‘Violence, Peace, and Peace Research’, *Journal of Peace Research*, 6(3), pp. 167–191.

Gamu, J., Le Billon, P. and Spiegel, S. (2015) ‘Extractive industries and poverty: A review of recent findings and linkage mechanisms’, *The Extractive Industries and Society*, 2(1), pp. 162–176. doi:10.1016/j.exis.2014.11.001.

Gauthier, M. (2016) ‘3-D Mapping: A Planning and Management Tool for the Itombwe Nature Reserve’. Oslo: Rainforest Foundation Norway.

Gaynor, K.M. *et al.* (2016) ‘War and wildlife: linking armed conflict to conservation’, *Frontiers in Ecology and the Environment*, 14(10), pp. 533–542. doi:https://doi.org/10.1002/fee.1433.

Geenen, S. (2014) ‘“Qui Cherche, Trouve” The political economy of access to gold mining and trade in South Kivu, DRC’. PhD thesis, University of Antwerp, Institute of Development Policy.

Geenen, S. and Cuvelier, J. (2019) ‘Local elites’ extraversion and repositioning: Continuities and changes in Congo’s mineral production networks’, *The Extractive Industries and Society*, 6(2), pp. 390–398. doi:10.1016/j.exis.2018.10.013.

Geenen, S. and Marijsse, S. (2020) 'The Democratic Republic of Congo: From Stones in the River to Diving for Dollars', in Verbrugge and Geenen (eds) *Global Gold Production Touching Ground*, pp. 263–281. doi:10.1007/978-3-030-38486-9_14.

Geenen, S. and Radley, B. (2013) 'In the Face of Reform: What Future for ASM in the Eastern DRC?', *Futures*, 62(A), pp. 58–66. doi:10.1016/j.futures.2013.10.023.

Geenen, S. and Verweijen, J. (2017) 'Explaining fragmented and fluid mobilization in gold mining concessions in eastern Democratic Republic of the Congo', *The Extractive Industries and Society*, 4(4), pp. 758–765. doi:10.1016/j.exis.2017.07.006.

Geiger, D. (2009) *Turner in the tropics: the frontier concept revisited*. Luzern: Fakultät der Kultur- und Sozialwissenschaften, Universität Luzern. doi:10.5281/zenodo.30867.

Gereffi, G., Humphrey, J. and Sturgeon, T. (2005) 'The governance of global value chains', *Review of International Political Economy*, 12(1), pp. 78–104. doi:10.1080/09692290500049805.

Giddens, A. (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Berkley: University of California Press.

Giddens, A. (1985) *The Nation-state and Violence*. Berkley: University of California Press.

Global Witness (2016) *River of Gold*. London: Global Witness.

Gramsci, A. (1992) *Prison Notebooks*. New York: Columbia University Press.

Green, L. (1994) 'Fear as a Way of Life', *Cultural Anthropology*, 9(2), pp. 227–256.

Guba, E.G. and Lincoln, Y.S. (1994) 'Competing paradigms in qualitative research', in *Handbook of qualitative research*. Thousand Oaks, CA, US: Sage, pp. 105–117.

Gupta, D. (2001) 'Everyday Resistance or Routine Repression? Exaggeration as a Statagem in Agrarian Conflict', *The Journal of Peasant Studies*, 29(1), pp. 89–108. doi:10.1080/714003934.

Hall, R. *et al.* (2015) 'Resistance, acquiescence or incorporation? An introduction to land grabbing and political reactions "from below"', *The Journal of Peasant Studies*, 42(3–4), pp. 467–488. doi:10.1080/03066150.2015.1036746.

Hammersley, M. and Atkinson, P. (1995) *Ethnography: Principles in Practice*. Hove: Psychology Press.

Hammill, A. *et al.* (2009) *Conflict-sensitive conservation. Practioners' Manual.* Winnipeg: International Institute for Sustainable Development.

Hardin, G. (1968) 'The Tragedy of the Commons', *Science*, 162(3859), pp. 1243–1248. doi:10.1126/science.162.3859.1243.

Hardin, R. (2011) ‘Concessionary Politics: Property, Patronage, and Political Rivalry in Central African Forest Management’, *Current Anthropology*, 52(S3), pp. S113–S125. doi:10.1086/658168.

Harvey, D. (2003) *The New Imperialism*. Oxford: Oxford University Press.

Henderson, J. *et al.* (2002) ‘Global production networks and the analysis of economic development’, *Review of International Political Economy*, 9(3), pp. 436–464. doi:10.1080/09692290210150842.

Hennink, M., Hutter, I. and Bailey, A. (2010) *Qualitative Research Methods*. Thousand Oaks, CA: SAGE.

Hickey, S. and du Toit, A. (2013) ‘Adverse Incorporation, Social Exclusion, and Chronic Poverty’, in Shepherd, A. and Brunt, J. (eds) *Chronic Poverty: Concepts, Causes and Policy*. London: Palgrave Macmillan UK, pp. 134–159. doi:10.1057/9781137316707_7.

Hilson, G. (2009) ‘Small-scale mining, poverty and economic development in sub-Saharan Africa: An overview’, *Resources Policy*, 34(1), pp. 1–5. doi:10.1016/j.resourpol.2008.12.001.

Hilson, G. and Garforth, C. (2012a) ‘“Agricultural Poverty” and the Expansion of Artisanal Mining in Sub-Saharan Africa: Experiences from Southwest Mali and Southeast Ghana’, *Population Research and Policy Review*, 31(3), pp. 435–464. doi:10.1007/s11113-012-9229-6.

Hilson, G. and Garforth, C. (2012b) ‘“Agricultural Poverty” and the Expansion of Artisanal Mining in Sub-Saharan Africa: Experiences from Southwest Mali and Southeast Ghana’, *Population Research and Policy Review*, 31(3), pp. 435–464. doi:10.1007/s11113-012-9229-6.

Hilson, G., Sauerwein, T. and Owen, J. (2020) ‘Large and artisanal scale mine development: The case for autonomous co-existence’, *World Development*, 130, p. 104919. doi:10.1016/j.worlddev.2020.104919.

Hitchcock, M. and Teague, K. (2019) *Souvenirs: The Material Cultre of Tourism*. London: Routledge.

Hobbes, T. (2002) *Leviathan*. Peterborough: Broadview Press.

Hochleithner, S. (2017) ‘Beyond Contesting Limits: Land, Access, and Resistance at the Virunga National Park’, *Conservation and Society*, 15(1), p. 100. doi:10.4103/0972-4923.201397.

Holmes, G. (2007) ‘Protection, Politics and Protest: Understanding Resistance to Conservation.’, *Conservation and Society*, 5(2), pp. 184–201.

Holmes, G. (2014) ‘Defining the forest, defending the forest: Political ecology, territoriality, and resistance to a protected area in the Dominican Republic’, *Geoforum*, 53, pp. 1–10. doi:10.1016/j.geoforum.2014.01.015.

Horst, C. (2006) *Transnational Nomads: How Somalis Cope with Refugee Life in the Dadaab Camps of Kenya*. New York: Berghahn Books.

Hough, P.A. (2011) ‘Disarticulations and Commodity Chains: Cattle, Coca, and Capital Accumulation along Colombia’s Agricultural Frontier’, *Environment and Planning A: Economy and Space*, 43(5), pp. 1016–1034. doi:10.1068/a4380.

Hugues, N.J. (2011) ‘The Economic Value of Congo Basin Protected Areas Goods and Services’, *Journal of Sustainable Development*, 4, p. 130.

Hulme, D. and Murphree, M. (1999) ‘Communities, wildlife and the “new conservation” in Africa’, *Journal of International Development*, 11(2), pp. 277–285. doi:10.1002/(SICI)1099-1328(199903/04)11:2<277::AID-JID582>3.0.CO;2-T.

Igoe, J. and Brockington, D. (2007) ‘Neoliberal Conservation: A Brief Introduction’, *Conservation and Society*, 5(4), p. 432.

Igoe, J., Neves, K. and Brockington, D. (2010) ‘A Spectacular Eco-Tour around the Historic Bloc: Theorising the Convergence of Biodiversity Conservation and Capitalist Expansion’, *Antipode*, 42(3), pp. 486–512. doi:10.1111/j.1467-8330.2010.00761.x.

Inogwabini, B.-I. (2014) ‘Conserving biodiversity in the Democratic Republic of Congo: a brief history, current trends and insights for the future’, *Parks*, 20. doi:10.2305/IUCN.CH.2014.PARKS-20-2.BI.en.

Inogwabini, B.-I., Ilambu, O. and Gbanzi, M.A. (2005) ‘Protected Areas of the Democratic Republic of Congo’, *Conservation Biology*, 19(1), pp. 15–22. doi:https://doi.org/10.1111/j.1523-1739.2005.00181.x.

Isumbisho, P. *et al.* (2021) ‘Problématique d’accès aux terres et aux ressources naturelles pour les autochtones Batwa dans les périphéries du Parc National de Kahuzi Biega (PNKB) à l’Est de la République Démocratique du Congo.’ pp. 397–416.

Jackson, T. (2009) *Prosperity Without Growth: Economics for a Finite Planet*. London: Earthscan.

Javelle, A.-G. and Veit, P.G. (2012) ‘Managing Land for Mining and Conservation in the Democratic Republic of Congo’. Africa Biodiversity Collaborative Group.

Jenkins, K. (2017) ‘Women anti-mining activists’ narratives of everyday resistance in the Andes: staying put and carrying on in Peru and Ecuador’, *Gender, Place & Culture*, 24(10), pp. 1441–1459. doi:10.1080/0966369X.2017.1387102.

Jourdan, L. (2013) ‘From Humanitarian to Anthropologist: Writing at the Margins of Ethnographic Research in the Democratic Republic of Congo’, in Thomson, S., Ansoms, A., and Murison, J. (eds) *Emotional and Ethical Challenges for Field Research in Africa: The Story Behind the Findings*. London: Palgrave Macmillan UK, pp. pp. 12–26.

Kabra, A. (2009) ‘Conservation-induced displacement: A comparative study of two Indian protected areas’, *Conservation and Society*, 7(4), pp. 249–267.

Käkönen, M. and Thuon, T. (2019) 'Overlapping zones of exclusion: carbon markets, corporate hydropower enclaves and timber extraction in Cambodia', *The Journal of Peasant Studies*, 46(6), pp. 1192–1218. doi:10.1080/03066150.2018.1474875.

Kallis, G. *et al.* (2020) *The Case for Degrowth*. New York: Wiley.

Kalyvas, S.N. (2006) *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.

Kelly, A.B. (2011) 'Conservation practice as primitive accumulation', *The Journal of Peasant Studies*, 38(4), pp. 683–701. doi:10.1080/03066150.2011.607695.

Kelly, A.B. (2014) '*The Crumbling Fortress: Territory, Access, and Subjectivity Production in Waza National Park, Northern Cameroon'*, *Antipode*, 47, pp. 730–747. doi: 10.1111/anti.12132.

Kelly, A.B. and Gupta, A.C. (2016) 'Protected Areas: offering security to whom, when and where?', *Environmental Conservation*, 43(2), pp. 172–180. doi:10.1017/S0376892915000375.

Kelly, A.B. and Peluso, N.L. (2015) 'Frontiers of Commodification: State Lands and Their Formalization', *Society & Natural Resources*, 28(5), pp. 473–495. doi:10.1080/08941920.2015.1014602.

Kelly, J.T.D. (2014) '"This mine has become our farmland": Critical perspectives on the coevolution of artisanal mining and conflict in the Democratic Republic of the Congo', *Resources Policy*, 40, pp. 100–108. doi:10.1016/j.resourpol.2013.12.003.

King, V.T. (2017) 'Identity, material culture and tourism: Of ritual cloths and totem poles', *South East Asia Research*, 25(2), pp. 192–207. doi:10.1177/0967828X16654259.

Kivu Security Tracker (2021) *The landscape of armed groups in eastern Congo*. New York: Center on International Cooperation, pp. 1–44. Available at: https://kivusecurity.nyc3.digitaloceanspaces.com/reports/39/2021%20KST%20report%20EN.pdf.

Korf, B. (2011) 'Resources, violence and the telluric geographies of small wars', *Progress in Human Geography*, 35(6), pp. 733–756. doi:10.1177/0309132510394120.

Kothari, A., Camill, P. and Brown, J. (2013) 'Conservation as if People Also Mattered: Policy and Practice of Community-based Conservation', *Conservation and Society*, 11(1), p. 1. doi:10.4103/0972-4923.110937.

Kröger, M. and Nygren, A. (2020) 'Shifting frontier dynamics in Latin America', *Journal of Agrarian Change*, 20(3), pp. 364–386. doi:10.1111/joac.12354.

Kuhn, T.S. (2012) *The Structure of Scientific Revolutions: 50th Anniversary Edition*. Chicago: University of Chicago Press.

Kujirakwinja, D. *et al.* (2019) 'Establishing the Itombwe Natural Reserve: science, participatory consultations and zoning', *Oryx*, 53(1), pp. 49–57. doi:10.1017/S0030605317001478.

Kumar, R. (1990) 'Policy reform to expand mining investment in subSaharan Africa', *Resources Policy*, 16(4), pp. 242–255. doi:10.1016/0301-4207(90)90036-B.

Lasgorceix, A. and Kothari, A. (2009) 'Displacement and Relocation of Protected Areas: A Synthesis and Analysis of Case Studies', *Economic and Political Weekly*, 44(49), pp. 37–47.

Leach, M., Mearns, R. and Scoones, I. (1999) 'Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management', *World Development*, 27(2), pp. 225–247. doi:10.1016/S0305-750X(98)00141-7.

Leonard, D., Mushi, F.M. and Vincent, J. (2011) 'Social Contracts and Security in Sub-Saharan African Conflict States'

Li, T.M. (2007) *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham: Duke University Press.

Li, T.M. (2008) 'Contested Commodifications: Struggles over Nature in a National Park', In Joseph Nevins and Nancy Peluso (eds.) Taking Southeast Asia to Market: Commodities, Nature, and People in the Neoliberal Age, Ithaca: Cornell University Press, pp124-139.

Li, T.M. (2010) 'To Make Live or Let Die? Rural Dispossession and the Protection of Surplus Populations', *Antipode*, 41(s1), pp. 66–93. doi:10.1111/j.1467-8330.2009.00717.x.

Lilja, M. *et al.* (2017) 'How resistance encourages resistance: theorizing the nexus between power, "Organised Resistance" and "Everyday Resistance"', *Journal of Political Power*, 10(1), pp. 40–54. doi:10.1080/2158379X.2017.1286084.

Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic Inquiry*. Thousand Oaks, CA: SAGE.

Locke, J. (1824) *Two Treatises of Government*. London: C. and J. Rivington.

Lombard, L. (2016) 'Threat economies and armed conservation in northeastern Central African Republic', *Geoforum*, 69, pp. 218–226. doi:10.1016/j.geoforum.2015.08.010.

Lombard, L. (2020) *Hunting Game: Raiding Politics in the Central African Republic*. Cambridge: Cambridge University Press (The International African Library). doi:10.1017/9781108778794.

Lombard, L. and Tubiana, J. (2020) 'Bringing the tracker-guards back in: Arms-carrying markets and quests for status in conservation at war', *Political Geography*, 79, p. 102131. doi:10.1016/j.polgeo.2019.102131.

Lujala, P., Gleditsch, N.P. and Gilmore, E. (2005) 'A Diamond Curse? Civil War and a Lootable Resource', *The Journal of Conflict Resolution*, 49(4), pp. 538–562.

Lunstrum, E. (2013) 'Articulated sovereignty: Extending Mozambican state power through the Great Limpopo Transfrontier Park', *Political Geography*, 36, pp. 1–11. doi:10.1016/j.polgeo.2013.04.003.

Lunstrum, E. (2014) 'Green Militarization: Anti-Poaching Efforts and the Spatial Contours of Kruger National Park', *Annals of the Association of American Geographers*, 104(4), pp. 816–832. doi:10.1080/00045608.2014.912545.

Lunstrum, E. *et al.* (2021) 'The rhino horn trade and radical inequality as environmental conflict', *The Journal of Peasant Studies*, 0(0), pp. 1–21. doi:10.1080/03066150.2021.1961130.

Lyamahesana, J.-C.K. (2013) *Les Pygmees Riverains Des Aires Protegees : Des Peuples Soumis Aux Nouvelles Formes d'esclavage. Cas Du Parc National De Kahuzi-Biega En Republique Democratique Congo*. report.

MacKinnon, I. (2020) 'Environmentality judiciously fired – Burning questions of forest conservation and subject transformation in the Himalayan foothills', *Environment and Planning E: Nature and Space*, 3(2), pp. 462–480. doi:10.1177/2514848619874690.

Maclure, R. and Denov, M. (2006) '"I Didn't Want to Die So I Joined Them": Structuration and the Process of Becoming Boy Soldiers in Sierra Leone', *Terrorism and Political Violence*, 18(1), pp. 119–135. doi:10.1080/09546550500384801.

Mangambu Mokoso, J.D.D. *et al.* (2018) 'Study of the Congolese distribution of the Lycophytes and Ferns from the mountain areas of Kahuzi-Biega National Park (Eastern DR Congo, Albertine Rift): A contribution to the conservation from this Park', *Journal of Biodiversity and Environmental Sciences*, 12.

Marijnen, E. (2018) 'Public Authority and Conservation in Areas of Armed Conflict: Virunga National Park as a "State within a State" in Eastern Congo', *Development and Change*, 49(3), pp. 790–814. doi:10.1111/dech.12380.

Marijnen, E. and Schouten, P. (2019) 'Electrifying the green peace? Electrification, conservation and conflict in Eastern Congo', *Conflict, Security & Development*, 19(1), pp. 15–34. doi:10.1080/14678802.2019.1561615.

Marijnen, E. and Verweijen, J. (2020) 'Pluralising Political Forests: Unpacking "the State" by Tracing Virunga's Charcoal Chain', *Antipode*, 52(4), pp. 996–1017. doi:10.1111/anti.12492.

Marijnen, E., de Vries, L. and Duffy, R. (2021) 'Conservation in violent environments: Introduction to a special issue on the political ecology of conservation amidst violent conflict', *Political Geography*, 87, p. 102253. doi:10.1016/j.polgeo.2020.102253.

Mariki, S.B., Svarstad, H. and Benjaminsen, T.A. (2015) 'Elephants over the Cliff: Explaining Wildlife Killings in Tanzania', *Land Use Policy*, 44, pp. 19–30. doi:10.1016/j.landusepol.2014.10.018.

Marx, K. (2015) *The 18th Brumaire of Louis Bonaparte*. CreateSpace Independent Publishing Platform.

Massarella, K. *et al.* (2018) 'REDD+, hype, hope and disappointment: The dynamics of expectations in conservation and development pilot projects', *World Development*, 109, pp. 375–385. doi:10.1016/j.worlddev.2018.05.006.

Massé, F. (2019) 'Anti-poaching's politics of (in)visibility: Representing nature and conservation amidst a poaching crisis', *Geoforum*, 98, pp. 1–14. doi:10.1016/j.geoforum.2018.09.011.

Massé, F. and Lunstrum, E. (2016) 'Accumulation by securitization: Commercial poaching, neoliberal conservation, and the creation of new wildlife frontiers', *Geoforum*, 69, pp. 227–237. doi:10.1016/j.geoforum.2015.03.005.

Masson-Delmotte, V. *et al.* (eds) (2021) *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press.

McCarthy, J.F. (2010) 'Processes of inclusion and adverse incorporation: oil palm and agrarian change in Sumatra, Indonesia', *The Journal of Peasant Studies*, 37(4), pp. 821–850. doi:10.1080/03066150.2010.512460.

Moïse, R.E. (2019) *Making Community Forestry Successful in DRC: Anthropological Perspectives on Community-Based Forest Management*. Rainforest Foundation Norway, pp. 1–30.

Moore, Jason W (2000) 'Sugar and the expansion of the early modern world-economy. Commodity frontiers, ecological transformation, and industrialization', *Review*, 23(3), pp. 409–433.

Moore, J.W. (2015) *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. Verso Books, p. 336.

Mudinga, E.M., Ngendakumana, S. and Ansoms, A. (2013) 'Analyse critique du processus de cogestion du parc national de Kahuzi-Biega en République Démocratique du Congo', *VertigO - la revue électronique en sciences de l'environnement*, (Hors-série 17). doi:10.4000/vertigo.13873.

Mutimanwa, D.K. (2001) 'The Bambuti-Batwa and the Kahuzi-Biega National Park: the case of the Barhwa and Babuluko people', in Nelson, J. and Hossack, L. (eds) *Indigenous Peoples and Protected Areas in Africa: From Principles to Practice*. London: Forest Peoples Programme, pp. 87–110.

Nealon, J.T. (2008) *Foucault Beyond Foucault: Power and Its Intensifications Since 1984*. Standford: Stanford University Press.

Neilson, J., Pritchard, B. and Yeung, H.W. (2014) 'Global value chains and global production networks in the changing international political economy: An introduction', *Review of International Political Economy*, 21(1), pp. 1–8. doi:10.1080/09692290.2013.873369.

Nest, M. (2011) *Coltan*. Cambridge, UK: Polity.

Neumann, R. (1997) ‘Primitive Ideas: Protected Area Buffer Zones and the Politics of Land in Africa’, *Development and Change*, 28(3), pp. 559–582. doi:10.1111/1467-7660.00054.

Neumann, R.P. (1998) *Imposing Wilderness: Struggles Over Livelihood and Nature Preservation in Africa*. Berkley: University of California Press.

Neumann, R.P. (2001) ‘Disciplining Peasants in Tanzania: From State Violence to Self-Surveillance in Wildlife Conservation’, in Peluso, N.L. and Watts, M. (eds) *Violent Environments*. New York: Cornell University, pp. 305–327.

Neumann, Roderick P. (2004) ‘Moral and discursive geographies in the war for biodiversity in Africa’, *Political Geography*, 23(7), pp. 813–837. doi:10.1016/j.polgeo.2004.05.011.

Neumann, Roderick P (2004) ‘Nature-state-territory: toward a critical theorization of conservation enclosures’, *Liberation ecologies : environment, development, social movements*, p. 195.

Niezen, R. (2003) *The Origins of Indigenism: Human Rights and the Politics of Identity*, *The Origins of Indigenism*. University of California Press. doi:10.1525/9780520936690.

Nixon, R. (2011) *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard University Press.

Nordstrom, C. and Robben, A.C.G.M. (1996) ‘Seduction and Persuasion: The Politics of Truth and Emotion Among Victims and Perpetrators of Violence’, in *Fieldwork Under Fire*. University of California Press. doi:10.1525/california/9780520089938.003.0005.

Norgrove, L. and Hulme, D. (2006) *Confronting Conservation at Mount Elgon, Uganda*, *Development and Change*. John Wiley & Sons, Ltd. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-7660.2006.00514.x (Accessed: 10 June 2020).

North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

Nussbaum, M.C. (2006) *Frontiers of Justice: Disability, Nationality, Species Membership*. Harvard University Press.

Nyenyezi Bisoka, A. (2016) ‘Acccéder aux « discours cachés » des élites au pouvoir. Défis liés à la perception des rôles et du statut du chercheur’. Available at: https://dial.uclouvain.be/pr/boreal/object/boreal:185591 (Accessed: 4 February 2022).

O’Brien, K., Hayward, B. and Berkes, F. (2009) ‘Rethinking Social Contracts: Building Resilience in a Changing Climate’, *Ecology and Society*, 14(2). doi:10.5751/ES-03027-140212.

O’Brien, K.J. (1996) ‘Rightful Resistance’, *World Politics*, 49(1), pp. 31–55.

Orta-Martínez, M., Pellegrini, L. and Arsel, M. (2018) ‘“The squeaky wheel gets the grease”? The conflict imperative and the slow fight against environmental injustice in northern Peruvian Amazon’, *Ecology and Society*, 23(3). doi:10.2307/26799131.

Ortner, S.B. (1995) 'Resistance and the Problem of Ethnographic Refusal', *Comparative Studies in Society and History*, 37(1), pp. 173–193.

Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Paluck, E. (2009) 'Methods and ethics with research teams and NGOs: Comparing experiences across the border of Rwanda and Democratic Republic of Congo', in *Surviving Field Research*. Routledge.

Parker, J. (2000) *Structuration*. 1st edition. Buckingham ; Phildelphia, Pa: Open University Press.

Pateman, C. (1985) *The Problem of Political Obligation: A Critique of Liberal Theory*. Polity Press.

Pattullo, P. (1996) *Last Resorts: The Cost of Tourism in the Caribbean*. Ian Randle Publishers.

Peluso, N.L. (1992) *Rich Forests, Poor People: Resource Control and Resistance in Java*. University of California Press.

Peluso, N.L. (2005) 'Seeing property in land use: Local territorializations in West Kalimantan, Indonesia', *Geografisk Tidsskrift-Danish Journal of Geography*, 105(1), pp. 1–15. doi:10.1080/00167223.2005.10649522.

Peluso, N.L. (2018) 'Entangled Territories in Small-Scale Gold Mining Frontiers: Labor Practices, Property, and Secrets in Indonesian Gold Country', *World Development*, 101, pp. 400–416. doi:10.1016/j.worlddev.2016.11.003.

Peluso, N.L. and Lund, C. (2011) 'New frontiers of land control: Introduction', *Journal of Peasant Studies*, 38(4), pp. 667–681. doi:10.1080/03066150.2011.607692.

Peluso, N.L. and Vandergeest, P. (2011) 'Political Ecologies of War and Forests: Counterinsurgencies and the Making of National Natures', *Annals of the Association of American Geographers*, 101(3), pp. 587–608. doi:10.1080/00045608.2011.560064.

Plumptre, A.J. *et al.* (2009) *Itombwe Massif Conservation Project: Delimitation and zoning of the Itombwe Natural Reserve for protection of great apes.* Unpublished Report to US Fish and Wildlife Service. Project 98210 – 7– G293.

Proctor, J.D. (1998) 'The Social Construction of Nature: Relativist Accusations, Pragmatist and Critical Realist Responses', *Annals of the Association of American Geographers*, 88(3), pp. 352–376. doi:10.1111/0004-5608.00105.

Prunier, G. (2009) *From Genocide to Continental War: The 'Congolese' Conflict and the Crisis of Contemporary Africa*. C. Hurst.

Quinn, C. and Ockwell, D. (2010) 'The link between ecological and social paradigms and the sustainability of environmental management: a case study of semi-arid Tanzania', in Lovett,

J.C. and Ockwell, D.G. (eds) *A handbook of environmental management*. Edward Elgar Publishing, pp. 282–308.

Raeymaekers, T. (2009) 'The silent encroachment of the frontier: A politics of transborder trade in the Semliki Valley (Congo–Uganda)', *Political Geography*, 28(1), pp. 55–65. doi:10.1016/j.polgeo.2008.12.008.

Rasch, E.D. (2013) '"Ecotourism, not mining, in Palawan!" Territorial narratives on the last frontier (Palawan, the Philippines)', in *The Ecotourism-Extraction Nexus*. Routledge.

Rasmussen, M.B. and Lund, C. (2018) 'Reconfiguring Frontier Spaces: The territorialization of resource control', *World Development*, 101, pp. 388–399. doi:10.1016/j.worlddev.2017.01.018.

Rawls, J. (2005) *A Theory of Justice*. Harvard: Harvard University Press.

Raymond, H. (2007) 'The Ecologically Noble Savage Debate', *Annual Review of Anthropology*, 36(1), pp. 177–190. doi:10.1146/annurev.anthro.35.081705.123321.

Redmond, I. (2001) *Coltan Boom, Gorilla Bust The Impact of Coltan Mining on Gorillas and other Wildlife in Eastern*. Dian Fossey Gorilla Fund & Born Free Foundation, pp. 1–28.

Reno, W. (1995) *Corruption and State Politics in Sierra Leone*. Cambridge: Cambridge University Press.

Reno, W. (1999) *Warlord Politics and African States*. Boulder: Lynne Rienner Publishers.

Robbins, P. (2011) *Political Ecology: A Critical Introduction*. New York: John Wiley & Sons.

Rockström, J. *et al.* (2009) 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity', *Ecology and Society*, 14(2). Available at: https://www.jstor.org/stable/26268316 (Accessed: 21 January 2022).

Roe, D. (2008) 'The origins and evolution of the conservation-poverty debate: a review of key literature, events and policy processes', *Oryx*, 42(4), pp. 491–503. doi:10.1017/S0030605308002032.

Roth, R.J. (2008) '"Fixing" the Forest: The Spatiality of Conservation Conflict in Thailand', *Annals of the Association of American Geographers*, 98(2), pp. 373–391. doi:10.1080/00045600801925557.

Rousseau, J.J. (1974) *The essential Rousseau: The social contract, Discourse on the origin of inequality, Discourse on the arts and sciences, The creed of a Savoyard priest*. New York : New American Library.

Rutherford, D. (2021) *Raiding the Land of the Foreigners: The Limits of the Nation on an Indonesian Frontier*. Princeton: Princeton University Press.

Sack, R.D. (1983) 'Human Territoriality: A Theory', *Annals of the Association of American Geographers*, 73(1), pp. 55–74. doi:10.1111/j.1467-8306.1983.tb01396.x.

Scheper-Hughes, N. (1995) ‘The Primacy of the Ethical: Propositions for a Militant Anthropology’, *Current Anthropology*, 36(3), pp. 409–440.

Schouten, P. (2022) *Roadblock Politics*. Cambridge: Cambridge University Press.

Schuetze, C. (2015) ‘Narrative Fortresses: Crisis Narratives and Conflict in the Conservation of Mount Gorongosa, Mozambique’, *Conservation and Society*, 13(2), pp. 141–153.

Scott, J.C. (1985) *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press.

Scott, J.C. (1989) ‘Everyday Forms of Resistance’, *The Copenhagen Journal of Asian Studies*, 4(1), pp. 33–62. doi:10.22439/cjas.v4i1.1765.

Scott, J.C. (1990) *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven: Yale University Press.

Scott, J.C. (1998) *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.

Scott, J.C. (2009) *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia*. New Haven: Yale University Press.

Sikor, T. and Lund, C. (2009) ‘Access and Property: A Question of Power and Authority’, *Development and Change*, 40(1), pp. 1–22. doi:10.1111/j.1467-7660.2009.01503.x.

Simpson, F. and Fikiri Zirhumana, J. (2020) ‘The “extraction-conservation nexus” in eastern DRC : cases of resistance and acquiescence in Itombwe Nature Reserve’, in *Conjonctures de l’Afrique centrale 2020*. Paris: L’Harmattan, 2020, pp. 131–150.

Simpson, F.O. and Geenen, S. (2021) ‘Batwa return to their Eden? Intricacies of violence and resistance in eastern DRCongo’s Kahuzi-Biega National Park’, *The Journal of Peasant Studies*, 0(0), pp. 1–19. doi:10.1080/03066150.2021.1970539.

Simpson, F.O. and Pellegrini, L. (2022) ‘Conservation, extraction and social contracts at a violent frontier: Evidence from eastern DRC’s Itombwe Nature Reserve’, *Political Geography*, 92, p. 102519. doi:10.1016/j.polgeo.2021.102519.

Slife, B.D., Williams, R.N. and Williams, R.N. (1995) *What’s Behind the Research?: Discovering Hidden Assumptions in the Behavioral Sciences*. Thousand Oaks, CA: SAGE.

Sluka, J. (2008) ‘Participant Observation in Violent Social Contexts’, *Human Organization*, 49(2), pp. 114–126. doi:10.17730/humo.49.2.h033174683462676.

Sonter, L.J., Ali, S.H. and Watson, J.E.M. (2018) ‘Mining and biodiversity: key issues and research needs in conservation science’, *Proceedings of the Royal Society B: Biological Sciences*, 285(1892), p. 20181926. doi:10.1098/rspb.2018.1926.

Spira, C. *et al.* (2019) 'The socio-economics of artisanal mining and bushmeat hunting around protected areas: Kahuzi–Biega National Park and Itombwe Nature Reserve, eastern Democratic Republic of Congo', *Oryx*, 53(1), pp. 136–144. doi:10.1017/S003060531600171X.

Stearns, J. (2013) *Raia Mutomboki: The flawed peace process in the DRC and the birth of an armed franchise*. Rift Valley Institute (RVI).

Stinson, J. (2013) 'Mother Nature's Best Kept Secret? Exploring the discursive terrain and lived experience of the ecotourism-extraction nexus in Southern Belize', in *The Ecotourism-Extraction Nexus*. London: Routledge.

Stone, M.T. and Nyaupane, G. (2014) 'Rethinking community in community-based natural resource management', *Community Development*, 45(1), pp. 17–31. doi:10.1080/15575330.2013.844192.

Tarrow, S. (1998) *Power in Movement: Social Movements and Contentious Politics*. 2nd edn. Cambridge: Cambridge University Press (Cambridge Studies in Comparative Politics). doi:10.1017/CBO9780511813245.

Thomson, S., Ansoms, A. and Murison, J. (2013) 'Introduction: Why Stories Behind the Findings?', in, pp. 1–11. doi:10.1057/9781137263759_1.

Tilly, C. (1978) *From Mobilization to Revolution*. New York: McGraw-Hill.

Tilly, C. and Tarrow, S.G. (2015) *Contentious Politics*. New York: Oxford University Press.

Titeca, K. *et al.* (2020) 'Conservation as a social contract in a violent frontier: The case of (Anti-) poaching in Garamba National Park, eastern DR Congo', *Political Geography*, 78, p. 102116. doi:10.1016/j.polgeo.2019.102116.

Titeca, K. and Edmond, P. (2019) 'Outside the Frame: Looking Beyond the Myth of Garamba's LRA Ivory–Terrorism Nexus', *Conservation and Society*, 17(3), p. 258. doi:10.4103/cs.cs_18_145.

Trefon, T. (2016) *Congo's Environmental Paradox: Potential and Predation in a Land of Plenty*. London: Zed Books Ltd.

Tsing, A.L. (2003) 'Natural Resources and Capitalist Frontiers', *Economic and Political Weekly*, 38(48), pp. 5100–5106.

Tumusiime, D.M. and Sjaastad, E. (2014) 'Conservation and Development: Justice, Inequality, and Attitudes around Bwindi Impenetrable National Park', *The Journal of Development Studies*, 50(2), pp. 204–225. doi:10.1080/00220388.2013.841886.

Van Hecken, G. *et al.* (2019) 'Can Financial Incentives Change Farmers' Motivations? An Agrarian System Approach to Development Pathways at the Nicaraguan Agricultural Frontier', *Ecological Economics*, 156, pp. 519–529. doi:10.1016/j.ecolecon.2016.12.030.

Vandergeest, P. and Peluso, N.L. (1995) 'Territorialization and state power in Thailand', *Theory and Society*, 24(3), pp. 385–426. doi:10.1007/BF00993352.

Vasile, M. and Iordăchescu, G. (2022) 'Forest crisis narratives: Illegal logging, datafication and the conservation frontier in the Romanian Carpathian Mountains', *Political Geography*, 96, p. 102600. doi:10.1016/j.polgeo.2022.102600.

Verbrugge, B. (2015) 'Undermining the State? Informal Mining and Trajectories of State Formation in Eastern Mindanao, Philippines', *Critical Asian Studies*, 47(2), pp. 177–199. doi:10.1080/14672715.2015.997973.

Verbrugge, B. and Geenen, S. (2019) 'The gold commodity frontier: A fresh perspective on change and diversity in the global gold mining economy', *The Extractive Industries and Society*, 6(2), pp. 413–423. doi:10.1016/j.exis.2018.10.014.

Verbrugge, B. and Geenen, S. (eds) (2020) *Global Gold Production Touching Ground: Expansion, Informalization, and Technological Innovation*. Palgrave Macmillan. doi:10.1007/978-3-030-38486-9.

Verbrugge, B., Lanzano, C. and Libassi, M. (2021) 'The cyanide revolution: Efficiency gains and exclusion in artisanal- and small-scale gold mining', *Geoforum*, 126, pp. 267–276. doi:10.1016/j.geoforum.2021.07.030.

Verweijen, J. (2015) 'The disconcerting popularity of popular in/justice in the Fizi/Uvira region, eastern democratic republic of the Congo', *International Journal on Minority and Group Rights*, 22(3), pp. 335–359. doi:10.1163/15718115-02203003.

Verweijen, J. (2017) 'Luddites in the Congo?: Analyzing violent responses to the expansion of industrial mining amidst militarization', *City*, 21(3–4), pp. 466–482. doi:10.1080/13604813.2017.1331567.

Verweijen, J. (2018) 'Civilian Resistance Against the Military in Eastern DR Congo: a Combined Social Navigation and Structuration Approach', *Qualitative Sociology*, 41(2), pp. 281–301. doi:10.1007/s11133-018-9378-y.

Verweijen, J. (2020) 'A microdynamics approach to geographies of violence: Mapping the kill chain in militarized conservation areas', *Political Geography*, 79, p. 102153. doi:10.1016/j.polgeo.2020.102153.

Verweijen J and Twaibu J and Ribakare M and Bulambo P and Mwambi Kasongo F (2021) *Mayhem in the mountains. How violent conflict on the hauts plateaux of South Kivu escalated*. Governance in Conflict Network.

Verweijen, J. and Dunlap, A. (2021) 'The evolving techniques of the social engineering of extraction: Introducing political (re)actions "from above" in large-scale mining and energy projects', *Political Geography*, 88, p. 102342. doi:10.1016/j.polgeo.2021.102342.

Verweijen, J. and Marijnen, E. (2016) 'The counterinsurgency/conservation nexus: guerrilla livelihoods and the dynamics of conflict and violence in the Virunga National Park, Democratic Republic of the Congo', *The Journal of Peasant Studies*, 45(2), pp. 300–320. doi:10.1080/03066150.2016.1203307.

Villegas, C. *et al.* (2012) *Artisanal and small-scale mining in protected areas and critical ecosystems programme ASM-PACE). A Global Solutions Study.* Estelle Levin Limited and WWF.

Vinthagen, S. and Johansson, A. (2013) 'Everyday Resistance': exploration of a concept & its theories', *Resistance Studies Magazine*, 1, pp. 1–46.

Vlassenroot, K., Mudinga, E. and Hoffman, K. (2016) *Contesting Authority: Armed rebellion and military fragmentation in Walikale and Kalehe, North and South Kivu*. Rift Valley Institute.

Vlassenroot, K., Mudinga, E. and Musamba, J. (2020) 'Navigating social spaces: armed mobilization and circular return in Eastern DR Congo', *Journal of Refugee Studies* [Preprint]. doi:10.1093/jrs/feaa048.

Vlassenroot, K. and Raeymaekers, T. (2004) *Conflict and social transformation in eastern DR Congo*. Washinton: Academia Press.

Vuola, M. (2022) 'The intersections of mining and neoliberal conservation', *World Development*, 152, p. 105816. doi:10.1016/j.worlddev.2022.105816.

Vuola, M. and Simpson, F. (2021) 'The Case of "Double" Mining and Conservation Frontiers: Evidence from DRC and Madagascar', *Institute of Development Policy Discussion Paper*

Vwakyanakazi, M. (1992) 'Creuseurs d'or et crise socio-economique au Nord-Kivu en Republique du Zaire', *Africa: Rivista trimestrale di studi e documentazione dell'Istituto italiano per l'Africa e l'Oriente*, 47(3), pp. 375–391.

Wallerstein, I. (2011) *The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. Berkley: University of California Press.

Wallmo, K. and Jacobson, S.K. (1998) 'A social and environmental evaluation of fuel-efficient cook-stoves and conservation in Uganda', *Environmental Conservation*, 25(2), pp. 99–108. doi:10.1017/S0376892998000150.

Watts, M.J. (2013) *Silent Violence: Food, Famine, and Peasantry in Northern Nigeria*. Athens: University of Georgia Press.

Weber, M. (2012) *The Theory of Social and Economic Organization*. Connecticut: Martino Publishing.

Weitzner, V. (2017) ''Nosotros Somos Estado': contested legalities in decision-making about extractives affecting ancestral territories in Colombia', *Third World Quarterly*, 38(5), pp. 1198–1214. doi:10.1080/01436597.2017.1302328.

West, P. (2006) *Conservation Is Our Government Now: The Politics of Ecology in Papua New Guinea*. Durham: Duke University Press. doi:10.1215/9780822388067.

West, P. and Brockington, D. (2006) 'An Anthropological Perspective on Some Unexpected Consequences of Protected Areas', *Conservation Biology*, 20(3), pp. 609–616. doi:10.1111/j.1523-1739.2006.00432.x.

West, P., Igoe, J. and Brockington, D. (2006) 'Parks and Peoples: The Social Impact of Protected Areas', *Annual Review of Anthropology*, 35(1), pp. 251–277. doi:10.1146/annurev.anthro.35.081705.123308.

Wilshusen, P.R. (2009) 'Social Process as Everyday Practice: The Micro Politics of Community-Based Conservation and Development in Southeastern Mexico', *Policy Sciences*, 42(2), pp. 137–162.

Windey, C. and Hecken, G.V. (2019) 'Contested mappings in a dynamic space: emerging socio-spatial relationships in the context of REDD+. A case from the Democratic Republic of Congo', *Landscape Research*, 0(0), pp. 1–15. doi:10.1080/01426397.2019.1691983.

Witter, R. (2021) 'Why militarized conservation may be counter-productive: illegal wildlife hunting as defiance', *Journal of Political Ecology*, 28(1). doi:10.2458/jpe.2357.

Witter, R. and Satterfield, T. (2019) 'Rhino poaching and the "slow violence" of conservation-related resettlement in Mozambique's Limpopo National Park', *Geoforum*, 101, pp. 275–284. doi:10.1016/j.geoforum.2018.06.003.

Wood, E.J. (2006) 'The Ethical Challenges of Field Research in Conflict Zones', *Qualitative Sociology*, 29(3), pp. 373–386. doi:10.1007/s11133-006-9027-8.

Woods, K.M. and Naimark, J. (2020) 'Conservation as counterinsurgency: A case of ceasefire in a rebel forest in southeast Myanmar', *Political Geography*, 83, p. 102251. doi:https://doi.org/10.1016/j.polgeo.2020.102251.

Woolgar, S. (1988) *Science: The Very Idea*. London: Routledge.

Wrathall, D.J. *et al.* (2020) 'The impacts of cocaine-trafficking on conservation governance in Central America', *Global Environmental Change*, 63, p. 102098. doi:10.1016/j.gloenvcha.2020.102098.

Yamagiwa, J. (2008) 'Bushmeat Poaching and the Conservation Crisis in Kahuzi-Biega National Park, Democratic Republic of the Congo', *Journal of Sustainable Forestry*, 16(3–4), pp. 111–130. doi:10.1300/J091v16n03_06.

Ybarra, M. (2018) *Green Wars: Conservation and Decolonization in the Maya Forest*. Berkley: University of California Press.

Zoomers, A. (2010) 'Globalisation and the foreignisation of space: seven processes driving the current global land grab', *The Journal of Peasant Studies*, 37(2), pp. 429–447. doi:10.1080/03066151003595325.

# CURRICULUM VITAE

## Professional profile

Joint-PhD holder at the University of Antwerp's Institute of Development Policy and the Erasmus University Rotterdam's International Institute of Social Studies. My research focuses on the intricacies between environmental conservation, mineral extraction and armed group mobilisation in eastern DRC's South Kivu Province. I am currently working on two additional academic research projects: the first with VLIR explores the political ecology of forest resource management in DRC; the second with the USIP investigates the links between conservation, armed mobilisation, and environmental change also in eastern DRC. Before my PhD, I worked for four years as a strategic communications advisor with Xynteo, a high-level business consultancy supporting major corporations – from Unilever to the Ikea Foundation – to find new ways of doing business that benefit both people and the planet.

## Career summary

**October 2018 – October 2022** **University of Antwerp & Erasmus University Rotterdam**
**Joint PhD candidate**

*Outline*
My PhD research explores the nexus of environmental conservation, mineral extraction and violent conflict in eastern DRC's South Kivu Province. During this process, I designed and conducted extensive qualitative fieldwork and some quantitative survey research around Kahuzi-Biega National Park and Itombwe Nature Reserve. I communicated my research findings through publications in numerous academic journals, blog posts and conference presentations.

*Key achievements*

- Won a fully-funded four-year (joint) PhD project through FWO with supervisors at the University of Antwerp's IOB and Erasmus University Rotterdam's ISS;
- Won additional grants to conduct ten months field research in eastern DRC (August 2019-February 2020; April 2021-May 2021; and July 2022);
- Achieved six publications in peer reviewed academic journals and presented research findings at nine academic conferences (see below);

*Project contributions*

- Managed research for USIP project on the linkages between armed conflict, environmental conservation and environmental change in eastern DRC's Itombwe Nature Reserve. The project's reports will be released in the second half of 2022 and the findings presented to stakeholders in Europe, DRC and the United States;
- Led South Kivu branch of VLIR project on the 'Political Ecology of Forest Resource Management' in eastern DRC. This involved research design, training local consultants, data collection, data analysis and write-up;
- Implemented a mixed methods (concurrent qual/quant design) survey around Kahuzi-

Biega National Park in eastern DRC to understand local perceptions around conservation governance in July 2022.

- Supported the application and implementation of VLIR project 'Engaging "workforce" and "water": towards more sustainable engagements around small-scale gold production in southern Peru';

**September 2014 – July 2018** **Xynteo, London, United Kingdom**
**Communications Advisor**

*Outline*

Created and lead strategic 'audience first' communications strategies in support of the brand aspirations of Xynteo and partner-led project outcomes. Xynteo is a purpose-driven advisory firm founded in Norway that works with the world's largest organisations to help them find new ways to grow that benefit people and planet.

*Key responsibilities*

- Built and managed relationships with stakeholders, internally and externally, using written and verbal influencing skills to ensure alignment and efficiency;
- Brought specialist communications capabilities to bear on Xynteo brand development and partner-facing work;
- Built on key internal and external milestones to generate awareness and favourability of Xynteo projects and programmes, as well as leveraged project incubation and activities as proof points for Xynteo offering;
- Managed content development and distribution process, including seamless partnership with external vendors;
- Worked closely with event teams to achieve outcomes of face-to-face engagements;
- Developed monitoring and measurement system to assess impact of communications activities, to ensure fast feedback mechanisms and ensure ongoing learning and growth.

*Key achievements / projects*

- Led project communications for the Norway 203040 Coalition of businesses in support of Norway's climate targets. The coalition partners included some of Norway's biggest companies such as Statoil, Coca Cola, Statkraft, Ikea and Telenor – among many others.
- Managed project communications for the Europe Delivers initiative which aims to bring stakeholders together from multiple sectors, disciplines and geographies to realise a new kind of growth for Europe. The project partners included Verizon, Yara, Mastercard and DB Shenker;
- Selected for the highly competitive 2014 Xynteo Growth Fellowship inspired by former managing director of Tata Steel Dr Jamshed Irani.

**April 2013 – May 2013** **School of Earth and Environment, Leeds, United Kingdom**
**Researcher**

*Outline*

Designed and executed a qualitative research project in the Amani Nature Reserve in the East Usambara Mountains of Tanzania with the University of Leeds' Sustainability Research

Institute to assess the impacts of malaria on household agriculture. Responsibilities included project design, data collection (household interviews and farm surveys), analysis, write-up, and presentation of findings to stakeholders living around the nature reserve.

**June 2012 – September 2012** **Imani Development, Blantyre, Malawi**
**Intern**

*Outline*

Contributed toward the implementation of several of Imani's flagship projects in Malawi. These included Mulanje's Micro-Hydropower Scheme, a value chain analysis of the Zambia's charcoal sector, Tanzania's National Export strategy, and Malawi's Private Sector Development Strategy.

## Education & qualifications

- **Master of Science: Environment and Development, Distinction** – University of Leeds, 2013
- **Bachelor of Arts: Environmental Sustainability, 1st Class Honours –** University of Leeds, 2012

## Languages

- **English**: Native speaker
- **French**: Level 4 (B1+) intermediate reading written and spoken

# Publications

**Key academic publications:**

Simpson, F., & Pellegrini, L. Forthcoming. Structure and Agency in Armed Mobilisation and Militarised Conservation: Evidence from Eastern DRC's Kahuzi-Biega National Park.

Simpson, F., Lwaboshi, R., Ikobo, Y., & Mulume, P. 2022. The Structuration of armed mobilisation in eastern DRC's Kahuzi-Biega National Park. University of Antwerp, Institute of Development Policy (IOB).

Simpson, F., & Pellegrini, L. (2022). Conservation, extraction and social contracts at a violent frontier: evidence from eastern DRC's Itombwe Nature Reserve. *Political Geography, 92, pp. 1-11.*

Vuola, M., & Simpson F. 2021. The case of 'double' mining and conservation frontiers: evidence from DRC and Madagascar. University of Antwerp, Institute of Development Policy (IOB).

Simpson, F., & Geenen, S. (2021). Batwa return to their Eden? Intricacies of violence and resistance in eastern DRCongo's Kahuzi-Biega National Park. *Journal of Peasant Studies*, 0, 1-20.

Simpson, F. 2021. When the hidden transcript storms centre stage: from slow to sudden violence in eastern DRCongo's Kahuzi-Biega National Park. University of Antwerp, Institute of Development Policy (IOB).

Simpson, F., & Fikiri, J. 2020. The 'extraction-conservation nexus' in eastern DRC: cases of resistance and acquiescence in Itombwe Nature Reserve . *Conjonctures de l'Afrique centrale 2020*.

**Key publications for non-academic audience**

Blog: EADI ISS Conference 2021 | Environmental destruction and resistance: a closer look at the violent reoccupation of the DRC's Kahuzi-Biega National Park. Bliss Blog.

Blog: IOB Sustainable Global Society 2021| Destruction de l'environnement et résistance : comment comprendre la réoccupation violente du parc national de Kahuzi-Biega en RDC. IOB Blog.

## Conference presentations and seminars

Seminary at CEGEMI Institute at UCB on 'Structure and Agency in Armed Mobilisation and Militarised Conservation: Evidence from Eastern DRC's Kahuzi-Biega National Park' 01 August 2022.

Seminar at the University of Leeds' Sustainability Research Institute on 'Structure and Agency in Armed Mobilisation and Militarised Conservation: Evidence from Eastern DRC's Kahuzi-Biega National Park'. 26 May 2022.

Second International Conference on Environmental Peacebuilding: 'When Armed Groups Do Not Undermine Conservation: The Curious Case of the Itombwe Nature Reserve, Eastern DRC.' Geneva, Switzerland. 02-04 February 2022.

ISS EADI Conference: 'The forgotten dimension of research in eastern Congo: the psychological impact on the researcher.' The Hague, The Netherlands (online). 05-08 July 2021.

ISS Development Dialogues: 'Batwa return to their Eden? The intricacies of violence and resistance in eastern DRCongo's Kahuzi-Biega National Park.' The Hague, The Netherlands (online). 05-08 July 2021.

Young Researchers Overseas' Day: 'Batwa return to their Eden? From slow violence to open conflict in Kahuzi-Biega National Park.' Brussels, Belgium (online). 15 December 2020.

IOB Doctoral Day Presentation: 'Community conservation at a violent frontier: environmentality, social contracts and the risk of unmet expectations.' Antwerp, Belgium (online). 06 November 2020.

Conjonctures Book Launch presentation: 'The extraction/conservation nexus: cases of resistance and acquiescence in Itombwe Nature Reserve.' Brussels, Brussels. 02 October 2020.

POLLEN Conference Presentation: 'Can community conservation create environmental subjects at a violent frontier?' Brighton, England (online). 22-25 September 2020.

Central Africa PhD Days: 'Can community conservation create environmental subjects at a violent frontier?' KU Leuven, Belgium (online). 25 May-01 June 2020.

CEGEMI 2019 Conference: 'Territorialisation, resistance and acquiescence at the 'conservation/extraction' nexus.' Bukavu, DRC. 15-17 December 2019.

## Teaching Experience

Delivered lecture on 'Approaches to conservation and natural resource governance' on Masters module on 'local governance' at the University of Antwerp's Institute of Development Policy. 04 May 2022.

Delivered lecture on 'Évaluation de différentes approches de la conservation à une frontière violente' as part of course on 'Goverance of Natural Resources' at the CEGEMI Institute at Université Catholique de Bukavu (UCB). 13 June 2022.

Contributed training on 'Security and Ethics' to participants on VLIR project 'Engaging "workforce" and "water": towards more sustainable engagements around small-scale gold production in southern Peru'. 21 January 2021.

Supervised the assessment of eight Masters dissertations at the University of Antwerp.'s Institute of Development Policy. August 2020 and 2021.

## Doctoral Training Courses

ISS-4334 Politics and the Economics of Natural Resource Management (8ECTS), Erasmus University Rotterdam. January-June 2019.

ISS-3201 Mixed Methods for Social Development Research (8ECTS), Erasmus University Rotterdam. January-June 2019.

Basic Principles of Statistics, StatUa/Antwerp Doctoral School, University of Antwerp. November 2018.

Excel: intermediate tips and tricks, Antwerp Doctoral School, University of Antwerp. January 2018.

Hostile Environment Awareness Training (HEAT), Centre for Safety and Development Foundation. November 2020.