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Lakes as Rebellious Landscapes: From 'Fishing Rebels' to 'Fishy State Officials' in DR Congo

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ABSTRACT

Lakes are rarely considered to be political spaces in the literature on the inter-linkages between landscapes, authority, and armed conflict. Scholars mainly focussed on the role of mountains, forests, and mud fields, in war and resistance, and examine how a variety of state(-like) actors try to make these 'unruly' spaces legible. This article discusses the frictions that emerge when the management of Virunga National Park in eastern DR Congo tries to retake control of Lake Edward through infrastructural and military interventions. These interventions not only encounter resistance from multiple rebel groups that hold various fishing villages along the shores of Lake Edward, but also from other state authorities present in the area—'fishing rebels' and 'fishy state officials'. Drawing on a *longue durée* perspective to understand contemporary contestations allows us to move beyond focussing on *practices* of illegal fishing in conflict areas and, instead, embed such issues within the broader historically shaped political and social landscapes of power. Park authorities aim to carve the lake into 'enclaves'—to counter subversion and render fishing sustainable—neglecting the ways in which the lake is interconnected. This article argues that we should abandon the dichotomy of landscapes as either producing subversive politics/rebellion or as controlled by 'the state'. Instead of approaching landscapes in conflict areas —in this case lakes— as 'rebel landscapes' they should be approached as 'rebellious landscapes', as they are controlled fluidly amongst different *de facto* authorities.

1. Introduction

Interlinkages between armed conflict and the environment are numerous and well-researched. Environmental historians have documented the long-lasting impacts of war on the environment, often focusing on how war reconfigures landscapes and how landscapes reconfigure the conduct of war (Biggs, 2018; Brady, 2012; Coates et al., 2011; Cole, 2014; Pearson, 2012). Such studies generally focus on the First and Second World Wars, the Vietnam War, and the American Civil War. However, political geographers are increasingly expanding the geographical and temporal range of these analyses (Gregory, 2016; Peluso and Vandergeest, 2011; Richards, 1998; Springer and Le Billon, 2016). Yet, these studies are often limited to forests, deserts, mud fields, mountains, and seas. Inland water geographies and the entanglements between lake geographies, fishing activities, and the dynamics of rebellion rarely receive scholarly attention.

Fishing in times of armed conflict is often framed as illegal resource extraction made possible through the breakdown of law and order in times of war. A range of actors seize the opportunity to economically enrich themselves which increases competition and sometimes leads to 'fish wars' (Glaser et al., 2019; Pomeroy et al., 2016). However, this framing neglects the broader historical socio-political landscapes the fishing takes place in. Lakes do have (illegal) economic potential, but are also politically and culturally important. Lake landscapes are understood, managed, and supposedly 'controlled' by a variety of public authorities (state officials, NGOs, fishing cooperatives, government armed forces, rebel groups etc.) who each influence the fishing activities and commodity chains that emerge around lakes. To further understand lakes as political spaces in areas of armed conflict, we must examine the co-production of geography, authority, and rebellion.

The Great **Lakes** Region in Africa is a region *par excellence* for this investigation. While the histories of colonisation, revolts, genocide, and war in Burundi, Rwanda, Uganda, and eastern Democratic Republic of Congo are interlinked, the (historical) role of lakes in these conflicts is understudied (e.g. Newbury, 1980). Lakes in the region (Lake Kivu, Tanganyika, Albert, Edward, Victoria) often form key natural borders and serve as points of interaction in dynamics of (regional) armed conflict, population movement, and rebellion. This paper focuses on Lake Edward, which was known as Lake Rutanzige, Rweru, or Ngetsi ya Nyamulaa before colonisation. I elect to use the name 'Edward,' despite its colonial origins, as this is the name used by Congolese people living around the lake. The lake is shared with Uganda, but the largest section is within eastern DRC's Virunga National Park (see Fig. 1).

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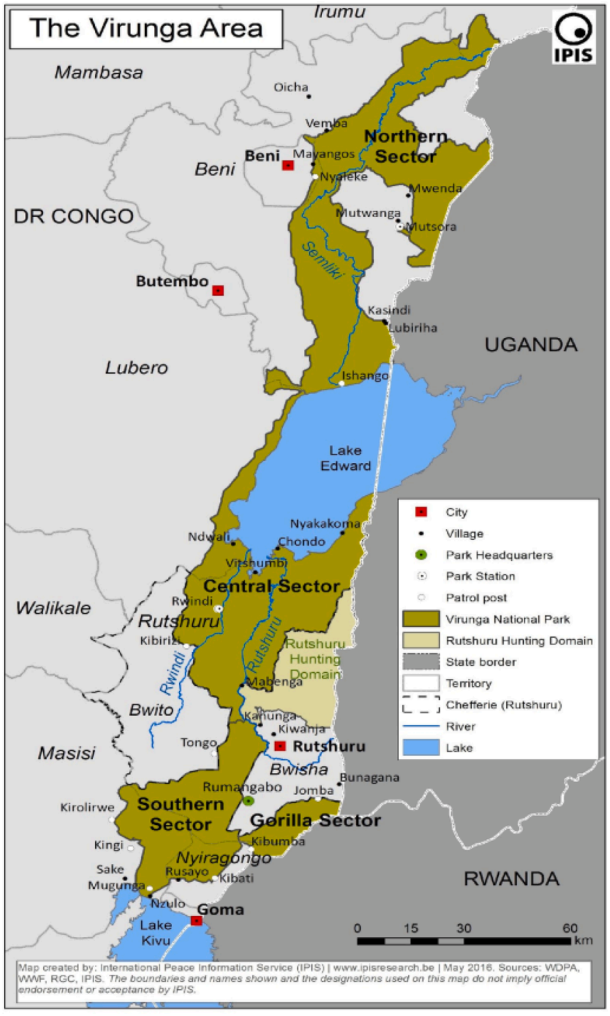

Fig. 1. Virunga National Park and Lake Edward.

This article links colonial-era policies meant to control the rebellious lake landscape to contemporary efforts by the state, non-state actors, and international conservation organisations to assert authority. The current park management aims to revive colonial policies to transform the lake into a controlled area. In doing so, park authorities not only aim to conserve the lake's ecosystem but also to mitigate subversion and address the entrenched presence of multiple Mai-Mai rebel groups. This paper responds to the critique of recentism in the field of political geography and ecology (Sluyter, 2010). A *longue durée* history of lakes can account for their specific socio-environmental relations by framing them as political spaces in continuous contestation and broader conflict. In doing so, it examines the pre-colonial period to understand why infrastructural and military interventions are met with fierce resistance and political mobilisation from fishing communities and their political representatives. This resistance, paradoxically, attracts a wider range of state institutions and authorities that try to exercise control and legitimate their presence by undermining park authorities. The lake attracts these 'fishy state officials' who facilitate practices of illegal fishing and operate in uneasy tandem with 'fishing rebels'.

Lakes offer logistical opportunities for economic, social, cultural, and political exchanges. They also provide relatively easy transport (compared to arduous roads) (Shell, 2015), sources of livelihoods, and cosmological importance (Fontein, 2006; Hughes, 2006). Political control can manifest through the presence of markets, harbours and human settlements (Chretien, 2003). Controlling these logistical assets is key to gaining authority and power, yet lakes are rarely controlled by a single actor (Neilson, 2012). Therefore, instead of representing Lake Edward as either a 'rebel landscape' or a 'well-governed enclave', I describe it as a 'rebellious landscape'. In analysing the political ecology of a rebellious lake landscape over the *longue durée*, this article underscores the importance of theorising landscapes beyond the dichotomy of 'unruly'/subversive versus within 'state' control.

This paper is based on 10 months of intermittent fieldwork conducted in and around Virunga National Park since 2015. Due to the dire security situation around Lake Edward, fishing villages were only visited sporadically for short visits. Two local research collaborators (who prefer to remain anonymous) also conducted interviews in villages that are considered 'illegal' and under the control of rebel groups. In 2018, additional interviews were conducted in Goma and Beni with people transporting the fish from Vitshumbi, Nyakakoma, Kavinyonge, Kisaka and Lunyasenge. Interviews were also conducted with the women who sell fish in the markets and who are in daily contact with fisherfolk around the lake. These interviews revealed much about the commodity chains, roadblock politics, and the security and political situation around the lake.

This article is structured as follows. First, it reviews the entanglement between conflict, the environment, and the (re-)stating of authority in and over landscapes. It argues for considering the importance of lake landscapes, with their particularities and historical socio-environmental relations in any analysis of armed conflict. Secondly, it situates Lake Edward in eastern Congo within the *longue durée*. Third, the paper discusses the park management's infrastructural and military interventions to (re-)assert authority over the lake in response to subversion, rebellion, and contestation. Finally, the paper analyses the multiple nodes of connection emerging around fishing and its commodity chain, involving a range of state and non-state actors operating together in a complex conundrum. This study reveals how lakes offer logistical opportunities for economic, social, and cultural connections and foster rebellious characteristics that challenge straightforward control.

2. From 'fishing conflicts' to the political ecology of a rebellious lake landscape

Existing literature on the link between armed conflict and fishing often ignores larger landscapes and is singularly focused on (illegal) fishing activities and dwindling fish stocks as a contributing factor to conflict (Pomeroy et al. 2007, Hendrix and Glaser, 2011; Glaser et al. 2019). In contrast, political ecologists have long critiqued environmental determinism and neo-Malthusian understandings of the link between natural resources and the dynamics of violent conflict (Peluso and Watts, 2001). It is, therefore, important to decentre natural resources and instead focus on the multiple relationships between the environment and geographies of violent conflict from a more holistic perspective, including the symbolic, emotional, and political dimensions of landscapes (Marijnen et al., 2020). In the case of lakes, we must move beyond fishing activities and fish stocks to understand the broader social and political landscape.

Throughout history, seas, canals, rivers, and other waterways have been conceptualised as geographies of insurgency and counter-insurgency operations. For example, Shell (2015) describes how waterways—like other road-resistant geographical zones, such as mountains, swamps, deserts—foster subversive forms of mobility (transportation of rebels and smuggling of arms and contraband). Similarly, Gregory (2016) notes how different geographical landscapes have been the mediums through which wars are conducted. Even outside of wartime, the ruling elite lived in constant fear that these landscapes *might produce* future subversive politics (Shell 2015). Authorities are therefore inclined to destroy and remove any forms of transport adapted to these landscapes which could be mobilised for subversive politics (ibid). Schouten and Bachmann (2021) describe the specific infrastructural challenges of 'rough terrain' in hindering the control and mobility of goods and people. In addition to the fear of future subversive politics, military and logistical

interventions can also be motivated by a narrative of a looming "ecological disaster" (Lee Johnson 2017). Authorities, therefore, try to divide lakes into 'regulated areas' where flows of people and goods can be controlled in an attempt to counter acts of subversion, render fishing sustainable, and contribute to the conservation of lake ecologies.

Ideas on how lakes should be controlled can often be traced back to the colonial period, as can the logistical and military conservation interventions to implement such ideas. Colonial narratives of what a lake should be conflicted with grounded, vernacular understandings of lake landscapes, leading to contestations and altercations. To understand these vernacular landscapes, political ecologists working on water have put forward the notion of "hydrosocial territories", underlining the humanised nature of waterscapes which are not fixed, bounded and spatially coherent territorial entities (Boelens et al., 2016). Water is understood as a physical materiality and social actor conducive to numerous cultural and political processes (Boelens et al., 2016, Barnes and Alatout, 2012). As such, this paper builds upon the political ecology of water literature, which is closely linked to STS, by bringing it into conversation with literatures on landscapes and (counter-)insurgency.

The relationship between landscapes and (counter-)insurgency movements is often analysed from a strategic perspective: for example, forests and mountains are seen as a preferable landscape for rebel groups to find cover, regroup and organise training camps. However, this is an instrumentalist and opportunistic perspective that sees rebels as exogenous, not endogenous, to the landscapes in which they operate. To overcome this pitfall, we can draw from (environmental) historical and anthropological studies on terrains and resistance to "the state", specifically those focusing on the importance of water, lakes, and fishing (Fontein, 2006; Lan, 1985; Hughes, 2006).

Fishing communities are thought to possess higher commitments to autonomy and a general distrust of the state. Social marginalisation and histories of dispossession are said to have made piracy an explicit form of resistance against "the state" (McCay 1984; Shell 2015). However, like the broader literature on "rough terrains", these accounts risk portraying such landscapes as secluded, or in the context of armed conflict, as exclusionary "rebel landscapes". In actuality, the logistical qualities of lakes in armed conflict become key sites for negotiations and entanglement amongst a whole range of state and non-state authorities. It is more fruitful to approach lakes in conflict areas as "rebellious landscapes", not "rebel landscapes", as this allows us to better account for the complex relationships and constellations of actors and power. This also allows to focus on the agency people living around lakes have within these landscapes of power and authority.

It is important not to draw artificial boundaries between the water, the shores, and the hinterlands. Fontein (2006), using the case of Lake Mutirikwi in Zimbabwe, argues that politics over land and water cannot be separated. During colonisation Lake Mutirikwi (like Lake Edward) was partly alienated from the surrounding land due to the creation of reserves, protected areas, and tourism resorts (ibid). Chirwa (1996) describes similar processes at Lake Malawi. Delineating land and water activities is problematic, as archaeological research indicates that so-called 'lake people' also relied heavily on the land to shift from fishing, to cattle, to agricultural activities as political and environmental factors changed (Sobania, 1988).

Moreover, extensive pre-colonial trading networks existed in and around lakes, not only for fish products, but also for other valuable goods like salt and jewellery (Good, 1972; Newbury, 1980). These records reject the image of 'African fishing' as a subsistence and 'local' activity in the pre-colonial period. The lake-based trade networks helped people from different regions meet and work together, forging political, social, and cultural connections (Nzabandora, 2003; Chrétien, 2003). For example, those with control over the salt mines of Katwe (connected to Lake Edward) had considerable political and economic power (Good, 1972). Moreover, the discovery of shrines to Nyabingi (a divine spirit originally from Rwanda but also influencing parts of Uganda and Congo) along the northern shores of Lake Edward shows how lakes were spaces of social and cultural exchange and later sites of anti-colonial protests (Nzabandora, 2003; Packard, 1982). If we understand lakes as political spaces embroiled in localised struggles over land and water, it becomes necessary to analyse how these struggles are enmeshed within larger dynamics of armed conflict, rebellion, and war (Fontein, 2006; Lan, 1985). By analysing these entanglements—and by asking how and when lakes should be understood as rebellious landscapes—this paper joins literatures exploring the interconnectedness of landscapes, war, and political ecology to better understand how nature-society relations are configurated by power relations.

3. The longue durée of Lake Edward as a political space

This section contains a brief historical overview of the changing configurations of power and authority structures over Lake Edward from the pre-colonial period until the end of the Second Congo War in 2003. It reviews how the lake and its fishing activities have long been economically, politically, and culturally important. Colonial and post-colonial attempts to establish control over the area encountered resistance and, thus, were never completely successful. This history also traces the colonial roots of contemporary EU-funded interventions by park management to re-take control of the area. These interventions see the rebel groups as an infrastructural engineering problem and ignore the historical layeredness of the lake as a rebellious landscape.

It is often forgotten that Lake Edward is an important natural *and* cultural heritage site. The lake is home to an important archaeological site, Ishango, where a tooth was discovered that confirmed human presence around the lake two million years ago (Crevecoeur et al., 2014). At Katanda, another archaeological site on the Semiliki River, fishing harpoons were found that date back 90,000 years. The most famous regional discovery is the "the Ishango bone", one of humanity's first mathematical instruments (Brooks and Smith, 1987). Together, this evidence points to the existence of an "aquatic civilisation of middle Africa" (Sutton, 1974) (see Fig. 2).

While pre-colonial accounts of the lake are rare, the sources that exist depict the lake as an important hub for local and regional trade, as well as forging social, cultural, and political connections (Good, 1972; Packard, 1982; Nzabandora, 2003). This was partly due to the presence of the Katwe salt mines where traders from the entire region came to exchange their products for salt and fish. Small canoes were used for fishing but also for trade and to connect people living around the lake. The lake also connected other political entities including the Toro kingdom (in contemporary Uganda) and the more decentralised customary authorities of the Banande along the west shores of the lake (in contemporary DRC) (Good, 1972). Hence, the lake – and its fluid properties allowing for easy transport – facilitated exchange and cultural-political cross-fertilisation. Nzabandora (2003) explains how a separate social-economic group emerged around the lake, the Bakingwe a multi-ethnic group, who monopolised the commerce. They were not really a sperate clan, as they were placed under the control of other clans. Due to colonial policies the group was forced out of Congo, but around 2000 people referring to themselves as Bakingwe, are present-day living around the lake on the Ugandan side.

European influence over the lake and its governance began in 1887–89 when Stanley visited the area and named the lake "Edward Albert". Shortly thereafter, the lake became an object of contestation between the Belgian and British colonial powers. When borders were drawn, the largest portion of the lake became part of Congo Free State (later Belgian Congo) while a small portion remained under British protectorate rule. However, differences in conservation approaches and fishing regulations persisted during the colonial era. The Belgian part of the lake was gradually incorporated into Albert National Park and became a strict conservation zone. In contrast, the British did not include the lake in Queen Elizabeth National Park and continued to allow commercial fishing (Nzabandora, 2003). Colonial authorities divided the lake for easier control. The flows and exchanges, so key to the pre-colonial

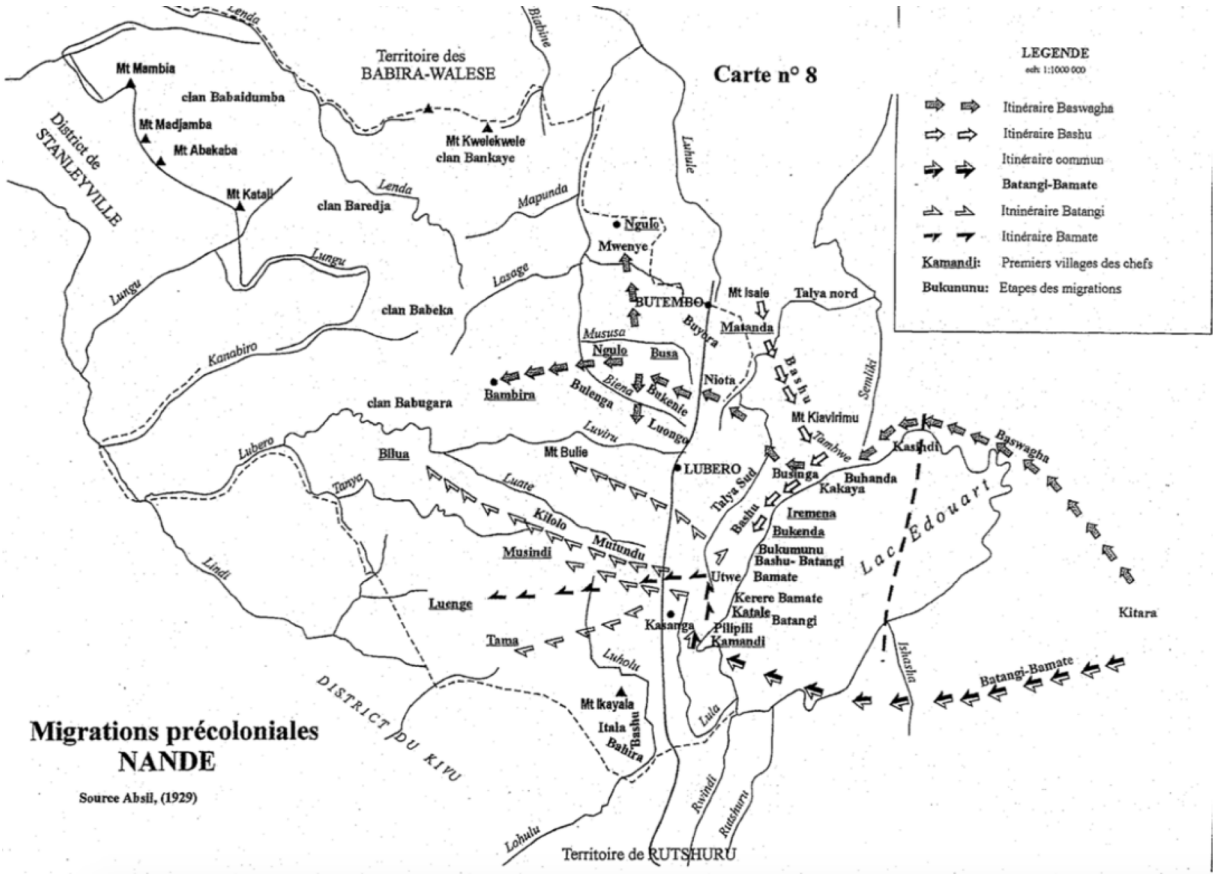

Fig. 2. This map shows the pre-colonial migration trajectories of different Nande clans toward Lake Edward. Their common history explains why many Banande sacred sites are found in the area. The lake remains a vital place for Nande groups to come together and mobilise. The west coast is one of the most contested areas in Virunga National Park, with various Mai-Mai rebel groups active in the area. Source: Nzabandora (2003).

period, now became a 'colonial engineering problem' of limiting and channelling mobilities to restrict fishing activities and access to the lake (Schouten and Bachmann, 2021).

To illustrate the far-reaching effects of colonisation on the spatial and social relations of the lake, we need only to examine the response to sleeping sickness in the area (Morris, 1960; Good, 1972). When Albert National Park was created in 1925, it did not include the lake. Before the park could encompass the lake, an estimated 8843 people were evacuated from the lakeshore supposedly due to the prevalence of sleeping sickness (Trypanonosmiase) caused by the Tsyse fly (Vikanza, 2011).[1] After the evacuation, the government prohibited all fishing activities around the lake.[2] The park was extended two years later in 1935, causing much contention with the displaced fishing families who knew that they would not be allowed to return to their villages (Nzabandora, 2003). The expansion also created tension between different colonial authorities present in the area. The park was not managed directly by the colonial administration but by a separate institute headquartered in Brussels, the Institute for the National Parks of Belgian Congo (IPNCB). The two entities often disagreed on how to balance economic and conservation interests. The park management not only banned local people from fishing, but also the colonial companies (Van Schuylenberg, 2016). Additionally, the colonial administrators worried that the park, particularly the lake, might become a hotbed of resistance if livelihoods were too suppressed (ibid).

During World War II, the park managers lost contact with IPNCB in Brussels. The colonial administrators seized this opportunity to allow some fishing villages to operate again. In 1947, they also launched a special investigation into the rights of indigenous people in the park and made numerous recommendations for people to regain access to some areas and receive adequate compensation (Nzabandora, 2003). However, only two "fishing enclaves" (Vitshumbi and Kavinyonge) were allowed within the borders of the park. These two enclaves were to be managed by a fishing cooperative, COPILE (*Coopérative des Pècheurs Indigènes du Lac Edouard*). All other settlements were destroyed (Vikanza, 2011). The enclave system limited access to and settlement around the lake, reducing the landscape to an economically rational space and ignoring the centuries-old ancestral, cosmological, and political relations.

In theory, COPILE allowed eleven *Mwamis* – the customary authorities – who ceded control of part of 'their' land to have a seat in the organisation. The profit made from fishing in the two enclaves would supposedly be shared equally to compensate for the loss of other fishing villages and access to arable land. However, COPILE became yet another contested authority, gaining only limited legitimacy in the eyes of the lower-ranked *groupement* and *localite* leaders and the general population (Nzabandora, 2003). Nevertheless, COPILE implemented several strict regulations: each village was assigned an allowance of fishing boats, housing types were regulated, children of fishermen were required to move out at a certain age to avoid population growth, and the movement of people and goods within the enclaves was strictly monitored (van Schuylenberg, 2006). However, COPILE only functioned for a few years and the strict control of fishing and life in designated enclaves only created additional contestations (Nzabandora, 2003). During the struggle for independence in the early 1960s, the cooperative stopped working completely.

After Mobutu came to power in 1965, park management was assigned to the ICZN (the current ICCN). The 1972 fishing cooperative

[1] No 11/1932

[2] No 25/AGRI 18/2/1934

was reinstated with the new name, COPILA (*Cooperative des Pêcheries Industrielles du Lac Amin*) and the lake was renamed Lake Idi Amin, after the Ugandan president in 1972–73.[3] In 1980, COPILA was renamed COPEVI (*La Coopérative des Pêcheries des Virunga*) and attempted to resurrect the colonial agreements stipulating the functioning of the fishing enclaves. However, in practice, many former fishing villages had re-emerged over time. One such village is Muramba, on the western shore of the lake, which was revived not only for the fishermen, but also because it is an ancestral burial site and spiritually important place for the Nande population (Nzabandora, 2003; Vikanza, 2011).

When government officials, including park guards, were not paid during the economic crisis of the '80s, many started to 'allow' fishing activities and village-formation in exchange for bribes (Languy and Kujirakwanja, 2016). Informal arrangements between the fishing communities and park authorities, not COPEVI, determined day-to-day realities like who was able to fish, how they could fish, how much they could take, and where they could go. Many fishing villages and activities remained officially 'illegal' but were *de facto* facilitated by local authorities, politicians, and the park authorities (Kasonia and Mushenzi, 2016).

Mobutu's fall in the '90s also impacted the social, economic and political situation around the lake. During the First and Second Congo wars, Congolese naval forces were deployed on the lake. This changing, and increasingly militarised, authority influenced the socio-environmental landscape. The presence of the army undermined the authority of the park management, contributing to an increase in illegal fishing activities and poaching of hippos. The northern part of the lake also fell to the RCD-KML, a rebel group and self-proclaimed government. This allowed for the resurgence of three fishing villages and the formation of a separate fishing cooperative in Kavinyonge, disconnected from COPEVI in Vitshumbi (Kasonia and Mushenzi, 2016). Neither the rebel government nor their fishing cooperative was officially recognised by the ICCN, but park guards operating in RCD-KML territory followed orders from the 'rebel governement'.

After the peace agreement in 2003, the ICCN regained control of the entire park. With support from the WWF, they began to expel the people who had settled in the park during the wars. On the west coast of Lake Edward, 35,000 people were expelled at gunpoint without any offer of resettlement assistance or alternative forms of livelihoods (Schmidt-Soltau, 2010). During the Congo Wars, many Nande started to organise into self-defence rebel groups known as the Mai-Mai (from the Swahili *Maji,* the protective powers of the water). Despite the official peace agreement, many smaller Mai-Mai groups remained active and proliferated after the War. Their existence is intrinsically connected to the struggles for the lake, which proved to be fertile ground for (armed) mobilisation, legitimacy claims, and a source of revenue. Within this challenging context, the park management structure was overhauled with support from the EU, and began to approach the lake as an infrastructural project and hoped regain control and authority.

4. Virunga's infrastructural project in a rebellious lake landscape

After the 2006 elections, donors started to re-engage with eastern DRC. The European Union relaunched support to Virunga National Park through a public–private partnership that transferred the park management to a British NGO, the Virunga Foundation (Marijnen, 2017). This extensive financial support (over 83 M euro in the last 10 years) is said to protect biodiversity and increase security and stability in the wider area (European Commission, 2020).[4] The park management's new approach closely resembles the colonial-era infrastructural projects on the lake. Both approaches follow counter-insurgency logic and aim to control the flows and mobilities to and from the 'fishing enclaves' Marijnen (2018). These infrastructural interventions ignore the ways in which the lake is inherently connected to the broader social and political orders and are, of course, challenged.

For the new park management and their international donors, the lake is an "infrastructural frontier" (reference to the SI introduction). Four types of interventions are underway: 1) limiting and controlling the settlements and people around the lake, 2) developing the tourism infrastructure, 3) rendering fishing sustainable, and 4) intervening in the fish commodity chain and trade. The remainder of the paper discusses each of these interventions in more detail. First, the park seeks to remove illegal fishing villages through military operations with the Congolese army, the FARDC. The ancestral site of Muramba was one of the first illegal fishing villages to be destroyed. This operation was accompanied by acts of violence, with independent investigations concluding that people were raped and beaten (Verweijen et al. 2020). In response, customary leaders turned to a local Mai-Mai rebel group for help and protection. As one of the members explained,

> We as Mai-Mai understand there will be never harmony between [the] population and the ICCN. This became clear when they decided to burn the entire village of Muramba – and chased all the people out. Six months later, certain customary chiefs called us [Mai-Mai rebel group] to gather at Vikowa [Vikovo] – close to Muramba. We stayed there for two months. When the ICCN learned we were there, they went back to Ishango, as they got scared. A few days later the guards came back to build a patrol post in Muramba, but we were already at Katolo, when we learned park guards returned. We had a meeting with Chief [*redacted*] and decided to attack and kill the park guards. Two escaped – but all the others died. After the attack we went into the mountains, and customary leaders asked us to stay with the people from Muramba, who [are] now living in the mountains. We will never cease our hostilities as long as our village of Muramba is not rebuilt (interview, Kavinyonge, August 2018).

It should be noted that relationships between (displaced) fishermen and Mai-Mai groups are not always as close as in Muramba. Nevertheless, the close cooperation between fishing communities and rebels in Muramba became an important symbol of resistance against the park (Vikanza, 2011). This cooperation emerged partly to protect the sacred site; however, it also offered increased legitimation for the rebels hoping to defend their claims to illegal fishing (interviews, Kavinyonge, August 2018). In other fishing villages like Ndwali and Kamandi-Lac, similar dynamics occurred. The park started military operations (dubbed "clean the lake") to burn fishing villages and boats and forcefully remove people. This has further entrenched the rebel groups who now claim legitimacy by arguing that they 'protect' the fishing communities. The rebel groups retook control of the newly 'concurred areas' by attacking patrol posts, killing park guards, and generally increasing the insecurity for authorities (Verweijen and Marijnen, 2018).

The increased and continuous presence of different Mai-Mai groups has also become a source of insecurity for the very communities supposedly being protected. The groups are involved in the taxation of fishermen and other (violent) extortion techniques. While exact practices and amounts of 'taxation' vary somewhat, most rebel practices are remarkably similar. The armed groups ask each fishing boat to provide about 10,000 Congolese Francs (CF)—between $5 and $10 USD

[3] In 1975, the ONP (*Office National de Peche*) based in Kinshasa took control of fisheries. Yet, because of accusations of misuse and no confidence in ONP, COPILA took control back in 1978 (Kasonia and Mushenzi, 2016).

[4] Despite numerous interventions, there is no empirical evidence that the security situation acutally improved. Rebel groups maintain a continued and fragmented presence in the park, and security incidents such as kidnappings along the park roads have increased.

depending on the exchange rate—each week. They also charge one dollar for each basket of fish transported from the lake to the hinterland. This occurs in both recognised fishing villages and illegal ones. If the rebels find a boat that cannot provide a *jeton* (proof of payment), the motor (or the whole boat) is seized until 500,000 CF (about $250) is paid. If people cannot pay, they may be tortured or taken hostage. Families with a relative serving in the rebel group have a better bargaining position and can more easily negotiate the return of their boat.

Rebel groups also tax the (illegal) agricultural production in the fishing villages. While the law allows a limited number of people in official enclaves to fish, cultivating fields is strictly forbidden. However, the social-economic pressures force people to cultivate. Again, the rebel groups initially emerged as 'protectors' of agriculture but have now resorted to extortion. One woman, who cultivates illegally in Vitshumbi, described this seeming inevitability:

> It is better to be extorted and threatened by one of your own [Mai-Mai groups often include people from local families sharing similar ethnic backgrounds], than by outsiders. Yes, they are violent, but who says that it would be better if it was the Congolese army? (Interview, May 2016)

Many interviews confirmed this sentiment. The rebels understand seasonal differences in production and are open to negotiation, in contrast to the extortion by FARDC soldiers. Additionally, Mai-Mai groups generally structures, such as the fishing associations, to distribute *jetons.* While some international organisations see this 'collaboration' as a sign that entire fishing villages "have become Mai-Mai bulwarks" (personal communication, June 2019), one member of the fishing association simply rebutted, "we do not really have a choice, do we?" (Interview, Vitshumbi May 2016). The Mai-Mai groups' strategy—to become enmeshed in the daily functioning of fishing activities and organisations – positions them as an intractable problem that cannot be addressed through military solutions. The rebel groups aim to govern both civilians and nature and reconfigure social-environmental landscapes—a fact that is missed when one focuses solely on illegal fishing and natural resource exploitation.

It is important to stress that most people around the lake deplore the increasing insecurity and many local organisations have tried to raise awareness at the provincial, national, and international levels to pressure authorities to fight the rebel groups. This is not to say that "fishing communities" are a socially and politically homogenous group—divisions exist, especially between those recognised as 'official' and the majority who are considered 'illegal'. Contestations occur over the number of fishing villages and fishing boats that should be allowed, how social and political life should be regulated, and how provincial, national, and international political actors should engage with the broader lake landscape.

In addition to their military operations, the park has also started negotiations with eleven Mwamis to revitalise the former colonial COPEVI conventions. However, fishing communities do not see these renewed negotiations as legitimate since organisations in *de facto* control around the lake were not consulted. A new convention between the Mwamis and the ICCN in June 2019 sparked protest and political mobilisation to pressure the provincial government to halt further reification of the agreement. For many, the agreement was a clear return to the old, colonial convention. Even local organisations 'close' to the park were critical of the agreement which only allowed two official fishing enclaves (Vitshumbi and Kavinyonge) and excluded three others that had been quasi-accepted for two decades (Nyakakoma, Kisaka and Lunyasenge).[5] As a representative of a local environmental NGO stated,

> We do not accept that the population have not been consulted in the process. They included the rule that people have to leave the fishing villages when 18 years old, where do these youth go? This is just pushing people towards the Mai-Mai, to me this convention is a declaration of war (Goma, June 2019).

The agreement clearly seeks to control social, economic, and political life in the lake landscape. For example, it stipulates that non-fisherfolk must obtain a 7-day permit to reside in the designated "fishing enclaves".

People in Vitshumbi and Kavinyonge, the two 'official' villages, also perceive their life to be enclavic. Both villages are only accessible by one road which is controlled and monitored by park guards. The guards determine which goods and people are allowed to enter and leave the villages. In an attempt to limit growth in the enclaves, the park does not allow any materials that can be used for the construction of durable houses. Even after heavy rainfall that destroyed many rooves, park guards stopped trucks with building materials from entering Vitshumbi. This instigated a major protest that resulted in violence (Verweijen et al., 2020).

Over the years, the park has also pursued projects to improve fishing techniques and the commercialisation of fishing activities. These interventions were briefly hailed as successful by fishers. In this period, when fishermen had a good catch, they would directly thank the director of the park, Emmanuel de Merode (interview, Vitshumbi May 2016). The fishers worked closely with the park management to oppose the British oil company SOCO, which was searching for oil using seismic tests. Many fishers—though not all—were (and still are) opposed to future oil exploitation. To mobilise against SOCO, the park began working more closely with the people and local organisations around the lake. At the same time, other political and administrative authorities, including representatives of the Congolese army, facilitated the work of the oil company. This stance of the park management was welcomed by many people around the lake, who deplore the normally close collaboration between the park and the FARDC. However, once SOCO withdrew from the lake, the moment of collaboration disappeared. Military operations with the FARDC resumed, including operations in Ndwali and Kamandi-Lac, where settlements and fishing boats were destroyed.

The park also aims to improve social-economic development through the so-called Virunga Alliance. Beginning in 2013, this long-term development strategy developed by the Virunga Foundation focuses on hydroelectricity and attracting private businesses to the park. The plan hopes to improve the economic situation of people around the park by generating jobs and discouraging illegal activities. It is also believed that the Alliance will dissuade people from joining armed groups (Marijnen and Schouten, 2019). The plan focuses on two components for Lake Edward: increasing tourism opportunities and improving the commercialisation and transport of fish. Both elements, along with support for military operations, are financed through the EU project *Complexe Lac Édouard* (CLÉ). This 4-year, 11 M euro project promises to

[5] Nord-Kivu : « La nouvelle convention entre la COPEVI et l'ICCN doit tenir compte des réalités actuelles de la population riveraine du Lac Edouard » (Élie Nzaghani, député provincial) – Groupe de presse La République (larepublique.net), and Virunga: Marche de contestation contre la convention signée entre l'ICCN et la COPEVI | environews-rdc.org (environews-rdc.org), and Parc des Virunga : Divergence de vue autour de la nouvelle convention signée par ICCN et COOPEVI sur la pêche au lac Edouard | Actualite.cd

introduce a new tourist circuit which will include canoeing the Rutshuru River and the lake itself.[6] However, tourism can only function in an area occupied by armed groups with widespread insecurity through securitisation and physical bunkerization – mounting to a form of eco-war tourism (author, forthcoming). But even this seems in the current situation rather utopian.

Another component of the plan is the valorisation of the lake's resources. Authorities hope to 'fight' the rebel groups' grip on informal trade by creating an alternative formal economy.[7] Because the project views the population as taken "hostage" by the armed groups who forces them to engage in illegal exploitation of the lake with little agency, it proposes a carrot and a stick approach. The park will offer opportunities to increase the value of commercialised fish by constructing cold rooms where fish can be stored, but only for fishermen working with the park authorities. At the same time, the park will strictly control trade through "dissuasive and repressive governance".[8]

5. A rebellious lake: Fishing, contestation, and subversion

The presence of Mai-Mai rebel factions around the lake certainly helps to characterise Lake Edward as a rebellious landscape.[9] Through practices of taxation and extortion, rebel groups are entangled within the broader conflict between the park and the people. However, numerous other public authorities contribute to the militarisation of the lake and participate in subversive politics. To better understand practices of subversion around the lake, this section analyses fish commodity chains and the various journeys connecting the lake with urban areas. It primarily draws on interviews with the motor drivers transporting fish to markets in Goma and Beni and the women who sell fish at the market. These narratives nuance the framing of illegal fishing as informal, criminal, and controlled by rebel groups (for a similar approach to charcoal production, see Marijnen and Verweijen, 2020).

The average route from the lake to the market contains between 12 and 25 points of taxation. Fish from the southern shores, bound for Goma, pass through more tax roadblocks than fish from the western side headed for Beni. Besides the initial tax charged by rebel groups allowing the fishermen to fish, numerous state and customary authorities also seek tax-per-fish. These include a provincial inspection from Agriculture, Fish and Livestock and the state agency for the Development and Protection of Fisheries. The Congolese military intelligence service (ANR) and the migration authorities (DGM) also collect taxes in the villages. The drivers transporting fish encounter many roadblocks, including ones staffed by park guards who may also charge tax, especially when the patrol post is operated by a mixed unit of ICCN and the FARDC. Further along, the driver must pay 200–500 CF at 8–15 other roadblocks by FARDC soldiers (some more 'official' than others) and 1–2 police checkpoints. Upon arriving in Beni or Goma, tax is paid to the city council and the women who sell the fish pay tax to authorities at the markets.

It is impossible to calculate the total value of the fish trade or the amount earned by the different Mai-Mai factions. However, what is known is that very little money remains for the fishermen once all the taxes are paid. This pushes people to over-fish and use unsustainable techniques to ensure a certain catch and minimum income. While the fisherfolk live extremely precarious lives, a whole range of actors profit from the illegal fishing. This broader analysis of the commodity chain demonstrates how multiple public authorities can claim authority through the fish-as commodity. It complicates the mainstream interpretation of conflict around the lake as a competition between rebel groups and the park guards, where the first have taken the fishing communities 'hostage'. Instead, the production and trade of fish – legal or illegal – creates a larger geography of fragmented public authority.

The lake not only provides opportunities for subversion (trafficking goods, hiding rebels, and resisting the colonial/state project of conservation), but offers state institutions and other public authorities the opportunity to reclaim authority and control. Paradoxically, the reinstatement of state authorities such as the Congolese army and provincial taxing institutions contribute to the entrenchment of illegal fishing. These authorities all profit from 'illegal' fishing practices and transform them from an illegal, subversive activity into a *de facto* norm of livelihood and trade. Therefore, current initiatives by the park management to address illegal fishing and to transform the lake into an enclave under their tutelage face resistance from rebel groups, fisherfolk, *and* from different state-actors embedded within the larger political landscape. However, the 11 M euro EU project proposal does not mention the multitude of (state) actors present around the lake or consider how they pose a problem in rendering fishing sustainable and limiting the number of fishing villages. Meanwhile, for fishers living around the lake, these "fishy state officials" are central to their daily experience:

> Even in these illegal places, around 20 now, state institutions are present; they are fictive – but authorities pretend they do exist. The presence of multiple state authorities is a direct and major factor in the encouragement of illegal fishing. State authorities favour clandestine fishermen – as they can extract fish and money from them. Without clandestine fishermen these state authorities would have nothing to search and 'do' around the lake (Interview Kavinyonge, August 2018).

The state authorities and the rebel groups both encourage 'illegal fishing'. They both use similar strategies of extortion, though different modes of violence. As one woman selling fish on the shore of the lake argued,

> We, the population, want to pay less taxes, and in that respect, we appreciate the Mai-Mai over the FARDC, because Mai-Mai lowers taxes at times; depending on the season and how much fish is caught, you can negotiate. If the FARDC would control all the illegal fishing they would double [the amount] the Mai-Mai are looking for (Interview Kavinyonge, August 2018).

The breakdown of the COPEVI structure allowed a range of other state authorities to enter the lake. Officially COPEVI needs to authorise every pirogue on the lake, but clandestine fishermen are not stopped. Though the official policy is to burn illegally caught fish, COPEVI asks for a portion of the clandestine catch and allows the fishermen to sell the rest. Thus, many clandestine fishermen make no attempt to hide and are never arrested. COPEVI is still seen as the only organisation allowed to officially raise taxes, which currently stand at $25 per boat per year. However, many other authorities have installed themselves around the lake to raise taxes on the people selling fish. The naval forces (part of FARDC) are seen as the most cumbersome and regularly harass fishermen while 'surveying the lake'.

People along the lake experience pressures from armed state authorities, an increasingly militarised park management, and entrenched rebel groups. Though the fisherfolk live in precarious economic situations and are exposed to many dangers, they still have agency, while

[6] Virunga Foundation (2013) project description, see https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj76fusnK3wAhVEIMUKHYiPCr4QFjAMegQIFBAD&url=https%3A%2F%2Fwww.observatoire-comifac.net%2Findex.php%2Ffile%2FeyJtb2RlbCI6IkFwcFxcTW9kZWxzXFxQcm9qZWN0XFxNb2R1bGVzXFxHZW5lcmFsSW5mbyIsImZpZWxkIjoicHJvamVjdF9kb2N1bWVudCIsImlkIjo3ODZ9&usg=AOvVaw0Biao_XiNZPKCvwSVLO7lv (last accessed 25 April 2020).

[7] Ibid.

[8] Ibid.

[9] The group *Alliance des Forces Armées de Résistants Patriotes Mai-Mai* (AFARPM) is probably the most well-known due its anti-park rhetoric

severely restricted due to the militarised context. They are not simply 'hostages' of the rebel groups, people negotiate access to fishing and try to negotiate imposed 'taxation' and extortion. Many people lobby local, regional, and national politicians to raise awareness about their situations, start associations to improve their living conditions, and risk their lives documenting human rights abuses. At the same time, the fishing villages continue to be fertile ground for armed mobilisation, with some people joining the Mai-Mai groups to claim their legitimacy. Without neglecting the tenuous situation, we must acknowledge the heterogenous forms of agency people *can* or *want to* perform in rebellious landscapes alongside their situated knowledges, histories and experiences. Militarised, unilateral 'technical' interventions to 'improve their situation' ignore this (aspired) agency (Titeca et al., 2020).

The interviews revealed that fishermen have the knowledge and skills to conduct sustainable fishing, so 'sensibilisation' programs are not warranted. The current political and economic situation is to blame for the unsustainable fishing practices. As one fisher explained,

> Fishermen know that the lake is overexploited – and that there are too many people fishing and using wrong methods. Structural changes on how it is managed, are needed. Too many illegal forms of fishing practices are allowed by authorities (Interview Vitshumbi, May 2016).

And as a former Mai-Mai rebel explained,

> We come from fishing families, we know do not kill any hippos. Where the hippo's leave their footprints in the ground, that is where the fish put their eggs and reproduce. Most hippos here [Lake Edward] have been filled by the army and foreign rebel groups, not by us (Interview Goma, June 2019).

Rather than assuming fishermen need to be taught about sustainable fishing, we must ask how the political and economic reality in eastern Congo precludes sustainable fishing. For example, one commonly used illegal fishing method is catching small fish that can be sold for a lower price. These fish are in high demand since people do not have the means to buy larger, high-quality fish. The fishermen are motivated to increase their productivity through unsustainable techniques and fish in protected zones because they cannot earn a living after paying the taxes and bribes. Yet, all the fishers we spoke with understand that this is not sustainable. They know how to read the lake environment and are the first to notice when fish stocks are dwindling. Sustainable fishing projects must take the political and economic reality of eastern Congo into account. The current approaches to 'sustainability' and control do not work. For example, a day after we visited the lake, the military sets fire on a few illegal boats and fishing, but this caused Mai-Mai rebels to take revenge, killing two soldiers and a civilian who lived with them. Unilateral action only increases the insecurity around the lake.

A solution would also require a joint strategy with the Ugandan authorities on the other side of the lake since current differences lead to cross-border contestations and violence. As one representative of a local environmental organisation stated,

> We need sustainable fishing and to protect the areas fish grow. Now, many fishermen fish in Uganda – illegally go over the border just to be able to catch good quality fish. As the quality is improved in Uganda – since the military took control over the lake – and it is strictly regulated. Yet consequently many of the Congolese fishers are arrested, and they also die in crossfire between Congolese and Ugandan armies on the lake. In one case 13 fishermen died (Interview Goma, June 2019).

As in pre-colonial times, the lake should be considered a holistic economic and political landscape. The intense connectivity, exchange, and fluidity make lakes political spaces that need to be grappled with, not artificially moulded into colonial partitions.

6. Conclusion

Lake Edward provides numerous opportunities for rebel groups to smuggle gold, weapons, ammunition. However, the rebels do not live along the lake solely for the strategic opportunities. Many members of the rebel groups come from disfranchised and displaced families, with old and new links to the lake. Unfortunately, these historically shaped nature-society relations are not understood by the current park management. Rather, they perceive the lake as a lawless area that attracts a range of exogenous 'bad elements' that should 'be brought under control' using military and infrastructural interventions. This approach has sparked a vicious cycle of military operations, armed mobilisations, and increased insecurity for civilians and park guards who live and operate in the area.

It is important to move beyond the dichotomy of landscapes as either for subversion/rebellion or state-governed. Very often, such landscapes overlap, merge, and emerge together. Lake Edward does indeed offer opportunities for subversive politics, but it simultaneously attracts a whole range of state and state-like authorities. Like the rebel groups, state authorities embed themselves in the wider logistics of illegal fishing. Narrowly focusing on illegal fishing and armed conflict overlooks these entanglements since the state agents are not directly implicated in fishing activities, but rather are embedded within the larger political and social landscape.

Historically, Lake Edward, like most lakes, was a place of connectivity, exchange, and fluidity where numerous economic, social, cultural, and political linkages emerged. During colonisation, it was perceived as a potential hotbed of resistance to colonial rule. Therefore, the colonial authorities tried to mould the lake into enclaves of subsistence livelihoods and control fishing practices, but the lake landscape resisted such projects—it has long been a 'rebellious landscape'.

This article extends Peluso and Vandergeest's (2011) classic work on the role of insurgency and counter-insurgency in the construction of 'political forests'. Lakes, of course, have different and specific logistical properties which must be considered. Firstly, people living around a lake have more knowledge and experience navigating than outsiders do. Residents know the streams and can navigate in limited visibility. They know where fish are found and when conditions are best for fishing. Moreover, fishers share a common cultural identity, which explain the reduced ethnic tensions in the fishing villages of eastern DRC, compared to other areas in the region. Fishing families see themselves foremostly first as that, fishers. As in the pre-colonial period this is epitomized in the fact that the lake was home to a separate socio-economic group the Bakingwe, which was multi-ethnic. Fishers are also relatively self-reliant—they fish and trade their produce along the shores (when the political and security situation allows). As such, lakes offer people autonomy, which—in a context of protracted violent conflict—is appealing for many in search of a livelihood, but also autonomy. We must look beyond the "enclaves" to understand the broad socio-political collusion, as Chalfin reminds us, "a focus on separation always obscures the diverse connections that enable co-existence" (2018:2). Landscapes are not *either* productive of subversive politics and rebellion *or* controlled by the 'the state'. Rather, landscapes, especially lakes, offer fluidity between different forms of authority and rebellion.

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