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The integration of conservation and security: Political ecologies of violence and the Illegal Wildlife Trade

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Abstract

This chapter examines the intersections between violence, security and the environment. It uses a political ecology lens to analyse the violences that arise from ‘enforcement-first’ approaches in tackling the illegal wildlife trade (IWT), as one aspect of conservation. Growing concern about the IWT as a threat to biodiversity and security has led to calls for an urgent response. This has encouraged and facilitated the development of responses that are anchored in law enforcement and militarisation. This is in part due to the redefining of IWT as a global security threat because it is deemed as a source of funding for armed groups and involves organised crime networks. The intense focus on the need to tackle IWT has led to shifts in conservation policy, such that anti-poaching operations are often accompanied by considerable levels of violence by conservation authorities.

Key words

IWT, poaching, rhinos, environment, Africa, security, violence, political ecology

Introduction

The rising concerns about biodiversity losses as part of wider patterns of negative environmental change is shaping approaches to conservation, both conceptually and practically. In this chapter, we use a political ecology approach to analyse the violences in some forms of current conservation practice, via a focus on the responses to the illegal wildlife trade (IWT). We focus on an important aspect of current conservation practice, centred on tackling IWT, and examine its role in producing more forceful and violent initiatives. We argue that there is an intensification in what Massé¹ refers to as an *enforcement-first* approach to tackling poaching and trafficking of wildlife and their parts, especially of some of the world’s best known and most charismatic species (notably elephants and rhinos) (also see Massé and Margulies 2020; Massé et al. 2020). ‘Enforcement-first’ refers to the spectrum of responses anchored in enhanced forms of law enforcement and militarisation (also see Roe et al. 2015; Cooney et al. 2017); it also denotes the ways that the urgency surrounding the need for rapid responses to poaching and trafficking has led conservationists to partner more fully with law enforcement and military actors (including private military companies). We explore how enforcement has become the option of first resort to address IWT, rather than of last resort when other options have already been tried and failed. In particular, we examine the ways that redefining IWT as ‘wildlife crime’ has facilitated a shift towards responses that are anchored in crime, policing and militarisation.

We analyse anti-poaching strategies in South Africa’s Kruger National Park as an illustrative example of the much wider dynamics that characterise a range of anti-poaching efforts and political ecologies of conservation violence. It is important to acknowledge the ongoing

¹ <https://www.ispionline.it/en/pubblicazione/enforcement-first-international-assistance-combat-wildlife-crime-20609>

influence of colonial histories in shaping approaches to conservation in Africa especially. The establishment of national parks, often accompanied by violent dispossession, was part and parcel of colonial rule (Mbaria and Ogada, 2016; Brockington, 2002; Brockington and Igoe, 2006; Agrawal and Redford, 2009). This history has resulted in significant levels of physical violence by those authorised to enforce laws and spaces to protect wildlife, which often date from the colonial era. These violences include viction, exclusion, dispossession and human rights abuses. Political ecologists have been central to drawing attention to these continuities, and their critiques have also underpinned the development of the sub-field of political ecology of conservation (see Peluso 1993; Brockington, 2002; Neumann 2001; West 2006). Using a political ecology approach we demonstrate how and why the most recent phase of more forceful forms of conservation around tackling IWT have developed. First, we set out the contribution of political ecology to debates about the intersections between environment, conflict and violence. Second, we examine how and why IWT has been redefined as a security threat, including the role of major donors in providing funding for enforcement-first approaches. Third, we explore the specific strategies of enforcement-first approaches, including heavier forms of law enforcement and green militarisation. Fourth, and finally, we outline the political ecologies of violence that surround conservation and tackling of the IWT and the role of comparative politics in furthering our understanding of these dynamics.

Political Ecology and Conservation Violence

The term ‘conservation’ covers a wide spectrum of approaches and activities; these include (but are not limited to) participatory and community oriented approaches such as community based natural resource management (CBNRM) and Indigenous-led conservation; establishing protected areas with differing levels of protection, including strict enforcement and ‘fortress conservation’; and neoliberal approaches such as Payments for Ecosystem Services and Biodiversity Offsetting. In this chapter we specifically focus on the interplay between conservation and violence in anti poaching and enforcement of national parks in response to tackling IWT. We use the example of Kruger National Park as a means of anchoring our broader discussion in a specific case. Doing so casts light on the dynamics of violence in other protected areas in Sub-Saharan Africa; this example also mirrors, albeit with some differences, the violent dynamics of cases of conservation-related violence in other regions such as Kaziranga National Park in India (Dutta, 2020) and the Maya Biosphere Reserve in Guatemala (Ybarra, 2017).

First, it is first useful to sketch out the ways in which political ecologists have developed analyses of the intersections between violence and the environment. Political ecology, as a field, is centrally concerned with understanding the range of violences produced by socio-ecological relations. Foundational political ecologists Peluso and Watts (2001: 5) classically define violence ‘as a site-specific phenomenon rooted in local histories and social relations yet connected to larger processes of material transformation and power relations.’ This characterisation is especially relevant to the dynamic interplay between conservation and violence, particularly in attempts to protect charismatic species from the poaching and trafficking associated with IWT. Spaces of conservation, commonly referred to as Protected Areas, are sites where uneven local-global power dynamics have re-configured political-economic and socio-ecological relations, often through and leading to violence. In many cases, protected areas and practices of conservation do map onto and intersect with existing forms of violence and conflict. In some cases protected areas reduce violence and increase the security of local residents (Kelly and Gupta 2016). In many others they are used strategically to quell insurgencies, crime and populations deemed unruly by the state (Peluso and Vandergeest 2011; Ybarra 2017; Woods and Naimark 2020), and in others the imposition

of protected areas, focused on wildlife protection purposes, are the source of violence and conflict (Carruthers 1995). Such conservation-related violences can arise from global inequalities (Robbins, 2012:1), power asymmetries, and differing values in conservation between those charged with enforcing conservation-related law and space, allied with international supporters and donors, and those experiencing that enforcement on the ground, primarily communities living in and around protected areas like national parks (for example see Marijnen and Verweijen, 2016; Ashaba, 2020; Büscher and Ramutsindela, 2016; Annecke and Masubelele, 2016; Büscher and Fletcher, 2018; Mabele 2016; Dutta, 2020; Marijnen, 2017; Teklehaymanot 2020). Furthermore, violences can also emerge as a result of resistances to control over resources and contestation of the state and of capitalist dynamics (Allen 2012: 158). For example, conservation has a history of being used to extend the reach of the politically and economically powerful into marginalized or resistant communities. The creation of strict protected areas has in some cases meant that extractive industries such as mining and logging, often owned and run by external actors, are prevented from exploiting resources in the area. However, environmental protection has also served the purposes of extending state power, for example by gaining control of forests, wildlife and land (Neumann 2001). Biodiversity conservation can become a central legitimating argument in attempts to control or displace those defined as ‘unruly’ groups (Peluso and Vandergeest, 2011; Margulies, 2018). Not all protected areas marginalise local communities (Oldekop et al. 2016; Kelly and Gupta, 2016). However, in addition to in-depth case studies of specific protected areas, large-scale analyses illustrate broad historical and contemporary trends of protected areas (especially strict protected areas under IUCN categories I-IV) as being complicit in violence and poor socio-economic outcomes for local residents (Brockington and Igoe 2006; Agrawal and Redford 2009; Dowie 2009; Oldekop et a. 2016).

It is important to note that defining violence is not easy, and it encompasses different forms, from direct physical violence, to broader forms of dispossession, exclusion and marginalisation which can mean less visible and immediate forms of violence on people and on environments. These notions of violence include Galtung’s (1969) structural violence and Nixon’s (2013) slow violence. These less immediate forms of violence emerge when “the power to decide over the distribution of resources is unevenly distributed” (Galtung 1990: 171). In the contexts of conservation, the power to decide which land and resources get protected or not, and where and through what measures, includes structural changes in access to land and resources with negative effects occurring over time. Political ecologists have highlighted examples of conservation-induced social injustices by examining how biodiversity conservation is a power-laden process with a long history of contributing to the uneven distribution of resources and various forms of violence. This ranges from curtailment of communities’ access to land and resources, forced and physical displacement of communities from and to create protected areas, and anti-poaching related violence, while simultaneously granting further access to conservation organisations and for-profit conservation enterprises.

Using a political ecology approach, this chapter focuses specifically on the intersections between violence and conservation. We draw on one example of this intersection: the ‘enforcement-first’² approach to tackle IWT (also Massé and Margulies, 2020; Massé et al. 2020; and Roe et al. 2015; Cooney et al. 2017). This approach manifests itself in two related ways: green militarisation and conservation law enforcement. Green militarisation, coined by

² <https://www.ispionline.it/en/pubblicazione/enforcement-first-international-assistance-combat-wildlife-crime-20609>

Lunstrum (2014), is one part of a continuum of responses that also fall under ‘conservation law enforcement’. Conservation law enforcement refers to “the organized practices and authorities used to enforce laws and norms related to the use of biodiversity and the regulation of activities within spaces of conservation” (Massé, 2020: 760). While a variety of laws apply to conservation areas, the phrase conservation law enforcement is often used interchangeably with anti-poaching, both referring to the policing of protected areas and the human and nonhuman bodies within them. Conservation law enforcement is not one thing or approach, but varies from place to place and context to context, ranging from outright militarised and shoot-on-sight policies, as in Botswana (Mogomotsi and Madigele, 2017), to more ‘traditional’ forms of policing to a lack of policing and enforcement for many protected areas (see Kelly and Gupta, 2016). Importantly, militarisation and law enforcement are not separate and discrete approaches to addressing IWT. Green militarisation of conservation law enforcement and policing of protected areas reflects the militarisation of more traditional policing and a broader blurring of war, police and security (Bachmann, Bell, and Holmqvist 2015). Proponents of green militarisation often use militarisation as a way to describe law enforcement, anti-poaching and as part of professionalising both. While intensifying in response to increases in IWT and its connections to security concerns, the enforcement-first approach builds on a long history of colonial and post-colonial conservation practice that has criminalised certain types of resource use by particular people (Neumann, 2004; Duffy et al., 2015; Mabele, 2016).

Political ecologists are leading debates on the emergence and impacts of green militarisation, defined by Lunstrum (2014, 817) as “the use of military and paramilitary (military-like) actors, techniques, technologies, and partnerships in the pursuit of conservation.” The roll-out of more militarised responses in conservation has been justified via appeals to the urgent need to prevent the loss of important species for the whole world (Duffy, 2014; Marijnen and Verweijen, 2016; Büscher and Ramutsindela, 2016; Annecke and Masubelele, 2016; Lunstrum, 2014, 2015; Büscher and Fletcher, 2018; Mabele 2016; Dutta, 2020; Duffy et al, 2019; Marijnen, 2017; Teklehaymanot 2020). We argue that green militarisation is readily apparent in some of the responses (discursive and material) to IWT. Lunstrum’s (2014) development of the concept of green militarisation, for example, emerges from her analysis of responses to rhino poaching in South Africa’s Kruger National Park. Another illustration is provided by Verweijen’s (2020) analysis of the microdynamics of violence in Virunga National Park where she maps the ‘kill chain’ in order to understand the ways that specific acts of violence are produced. Direct forms of violence by rangers against civilians living near Virunga National Park include intimidation, beatings, rapes, torture and killings. Conservation in Virunga is highly transnationalised and is characterised by considerable power asymmetries. While not ubiquitous, similar dynamics of militarisation, green security, and “green wars” – all forms of conservation-related violence – are also present in Latin America and Asia in response to poaching and other state-defined criminal and security threats (Devine 2014; Barbora 2017; Bocarejo and Ojeda 2016; Ybarra 2017; Dutta 2020; Muralidharan and Rai 2020). As these examples illustrate, much political ecology research on conservation violence focuses on specific categories of protected areas, namely those closely associated with what are commonly known as national parks that have strict resource use restrictions often aligning IUCN categories I-IV. Research into other categories of protected areas such as categories V, VI, and related community-based and multiple-resource use areas would provide a broader comparative picture on what the use of violence, and particularly militarisation, might be linked to particular places and protected area types.

The patterns of green militarisation are not confined to protecting high profile species from the IWT either; they characterise a growing range of environmental protection initiatives. In Nigeria militarised rangers are used to protect REDD+ forests, designated for global climate change mitigation schemes (Asiyanbi, 2016). In the borderlands between Mexico and Guatemala, conservation narratives are deployed to justify the use of force and violence in the Maya Biosphere Reserve, and have prevented the return of Internally Displaced Peoples following the end of civil war (Ybarra, 2017; Millner, 2019). Similar militarised dynamics are discernible in the protection of ecotourism sites in Colombia (Bocarejo and Ojeda, 2016) and in enforcement of marine protected areas in India (Muralidharan and Rai, 2020). The growing critiques of green militarisation, and specific, high profile and well documented cases of related human rights abuses have led some conservation NGOs to launch internal investigations, and donors such as the US Government to suspend funding to organisations associated with violence.³ Nevertheless, external funding from NGOs and donors aimed at tackling IWT has been skewed towards enforcement rather than approaches anchored in sustainable livelihoods or demand reduction (which we discuss in further detail below). We focus on the interplay between violence and conservation in forms of green militarisation in tackling IWT as a lens through which to examine the broader patterns of violence that are emerging as a result of global environmental change. While we focus on conservation initiatives in Sub-Saharan Africa, such patterns of militarised, securitised and violent interventions are clearly discernible in other locations and in protection of forests, landscapes and archaeological sites. The ways that the IWT is presented as a threat to species, to economies and to the rule of law (which we discuss on the next section) play out in material and often very violent ways for people and wildlife.

Framing IWT as a Security Threat

In order to understand the intersections between violence and conservation, it is first important to set out how IWT became redefined as a security threat; the designation of the trade as a security threat encouraged and facilitated the development of the enforcement-first approach. As Massé et al (2020) argue, the articulation of IWT as an issue of security and crime has translated into a conservation policy landscape that increasingly promotes and privileges responses such as legal and judicial reform, criminal investigations, intelligence gathering, law enforcement technologies, and informant networks. Indeed, the increasing militarization of conservation parallels the militarizing of other forms of law enforcement and policing related to drugs, immigration and other spheres (McCormack and Gilbert 2018). Along with militarisation, these form the core of enforcement-first approaches to poaching and IWT that are increasingly becoming the norm, especially in Sub-Saharan Africa, and across a variety of other sectors of criminal and non-criminal concern like drugs, development and humanitarianism.

The rises in poaching of elephants and rhinos from 2008 focused international attention on the need to tackle the IWT; this was presented as an urgent concern because of its capacity to drive species to extinction. From the mid 2000s there was a significant uptick in rates of poaching of some of the worlds' most iconic species, most notably elephants and rhinos. In South Africa, rhino poaching rates leapt from 13 rhinos in 2007, to 1215 poached in 2014, reducing to 1028 in 2017.⁴ Further, CITES figures indicate that elephant poaching across Africa increased from 2003, peaked in 2011 at 10% of elephants and has shown a slight downward trend to 4% since then. 10-15,000 elephants are still poached each year and there

³ <https://redd-monitor.org/2020/10/13/us-government-stops-funding-to-wwf-wcs-and-other-conservation-organisations-because-of-human-rights-abuses/> (accessed 20.11.20).

⁴ <https://www.traffic.org/what-we-do/species/rhinos/> (accessed March 19, 2021)

are regional differences with some regions driving this decrease while poaching rates in others remaining constant.⁵ Until 2008 IWT had been regarded as a boutique issue, the responsibility and concern of the conservation community, but this has changed and there is a greater degree of interest from a wider variety of sectors (Gore, 2017). This is largely the result of redefining and articulating IWT as a threat to species, but more importantly its articulation as a global security threat by drawing the links between it and destabilisation by armed groups, and by framing it as a form of serious and organised crime which undermines the rule of law.

This shift in the ways conservation and other sectors understand and respond to IWT is underpinned by arguments that the trade is used to fund non-state armed groups (militias, rebels, terrorist groups) and organised crime (Duffy, 2016). For example, there are widely circulating claims that IWT is used to fund international terrorism. The key moment in the debates was 2013, when claims emerged that ivory was a central source of funding for Al-Shabaab, a group defined as an international terrorist network by the United States Government. The claim that ivory is used to fund terrorism originated in a report by the Elephant Action League (Crosta and Sutherland, 2016) and later taken up by media, NGOs, and policy makers (Duffy, 2016). However, the claims have been criticised as not adequately supported by available evidence, and as being deployed by a range of actors to generate funding and to justify more forceful interventions to protect elephants from poachers (Somerville, 2017; Maguire and Haeinlein, 2015; Pennaz et al. 2018; Titeca and Edmund 2019). The ivory/Al-Shabaab case is a good example of the ways that IWT can be cast as a security threat because it is a means of generating ‘threat finance’. This takes two forms: first as a lucrative business for organized crime networks, and second as a source of finance for militias and terrorist networks, most notably Al-Shabaab, Boko Haram, Lord’s Resistance Army, and Janjaweed. The argument that IWT is a source of terrorist financing, and therefore is a global security threat, is central to the development of more forceful approaches in conservation.

The global conservation, law enforcement, security and broader policy making sectors have also redefined IWT as wildlife crime, and specifically a form of serious transnational organised crime (Massé et al, 2020). In many countries, such as in Mozambique, the hunting, harvesting and trading in species against national laws has moved from a transgression punishable by a fine to a criminal offence punished by long prison sentences (Massé, 2020). We acknowledge the need for laws to protect biodiversity, yet the concern among many is the unjust and generalised ways in which the serious crime framing leads to criminalisation and violent policing responses. Of particular concern is the (often blanket) criminalisation of already vulnerable resource users in and around protected areas who have been further made vulnerable by historical and existing conservation initiatives (Witter & Satterfield 2018). In addition, the wildlife crime framing tends to treat all illicit harvesting and trade in wild plants and animals as a form of serious and/or transnational organised crime without differentiating between subsistence use and variations among actors, species and types of activity within and along the wildlife supply chain (for this differentiation see Wyatt 2013). The result is a suite of measures to tackle serious and transnational organised crime being applied to a myriad of illicit wildlife use in often violent, unjust and counter-productive ways.

The need for more forceful approaches to tackle IWT is articulated in a range of ways. First there is the argument that IWT is criminal activity, which often involves organised crime

⁵ https://cites.org/eng/MIKE_PIKE_Trends_report_elephants_CITES_16112020 (accessed March 19, 2021)

networks. Therefore it is appropriate to respond with greater levels of law enforcement to uphold the rule of law (Wyatt, van Uhm and Nurse, 2020), including the use of intelligence gathering, informant networks and more active forms of policing (Massé et al, 2020). Conservation programmes that operate in areas of armed conflict, or where the state is effectively absent, operate in extremely difficult circumstances and staff are at risk of attacks by armed groups. As a result, conservationists sometimes feel they have no other option but to defend themselves and their programs via militarised approaches (Marijnen and Verweijen, 2016; Lombard and Tubiana, 2020; Marijnen, De Vries and Duffy, 2020). Conservationists also argue that poachers are becoming more heavily armed and organised, and therefore the only way to respond effectively is through the use of more forceful methods, including arming rangers with military-grade weapons and the implementation of shoot-to-kill policies (Mogomotsi and Madigele, 2017). Finally, proponents of green militarisation often present forceful approaches as a noble or heroic quest to save species because they have to act now in order to save wildlife for future generations (McClanahan and Wall, 2016; Marijnen and Verweijen, 2016). These discourses and ways of approaching IWT affect conservation policy on-the-ground, and often translate into considerable levels of direct violence, as well as wider forms of violence including exclusion and dispossession.

These material changes in conservation practice have been supported and extended by donors, which provide the finance to develop conservation initiatives based around enforcement approaches. A total of US\$1.3 billion was committed by 24 international donors between 2010 and June 2016 to address IWT in Africa and Asia (Wright et al, 2016). This funding supported 1,105 projects in 60 different countries, as well as regional and global projects. The top five donors were the Global Environment Facility (GEF), Germany, the United States, the European Commission, and the World Bank Group, who together contributed US\$1.1 billion (86%). Of this total funding, 46% supported protected area management to prevent poaching, while 19% went to law enforcement including intelligence-led operations and transnational coordination, 15% for sustainable use and alternative livelihoods, 8% for policy and legislation, 6% for research and assessment, and 6% for communication and awareness raising (Wright et al, 2016: 9). This reveals a clear pattern of flows of money towards particular beneficiaries and types of projects. The largest chunk of funding was allocated to projects in Africa (67%), with an additional 10% for projects that linked Africa and Asia, with national governments as the main beneficiaries of this funding rather than NGOs, private sector, research groups, or multilateral organisations (Wright et al, 2016: 14). Over two-thirds of all funding went to directly support enforcement-first approaches, with relatively little, and one could argue not enough, going to address drivers of IWT, namely poverty, livelihoods and global demand for wildlife.

Funding from bilateral donors like the US Fish and Wildlife Service (USFWS) and the UK Government's Department for Environment, Food and Rural Affairs (DEFRA) reveals similar patterns. Between 2002 and 2018, the USFWS Division of International Affairs provided conservation assistance to 4142 projects across 106 countries worth over USD \$301 million (Massé and Margulies, 2020). In that time, the authors suggest that IWT went from being a boutique issue to one of central importance in foreign policy and national security sectors. As a result, an increasing portion of USFWS foreign assistance for biodiversity conservation, broadly understood, was allocated to projects that centre on tackling IWT (much of this in Sub-Saharan Africa), with relatively less going to other conservation priorities such as community-based resource management and habitat and species monitoring. Relatedly, in 2014, the US Congress, and specifically the Sub-Committee on Department of State, Foreign Operations, and Related Programs allocated US\$45 million in

the foreign assistance biodiversity budget to tackle wildlife trafficking, which increased to US\$55 million in 2015, US\$80 million in 2016, and almost US\$91 million in each of 2017, 2018, and 2019, at the expense of other conservation priorities.

The UK Government has similarly made tackling IWT a key policy commitment. The Illegal Wildlife Trade Challenge Fund was established in 2013, and by 2019 it had allocated just over £23 million to 75 projects. Like the World Bank's analysis and USFWS funding trends, the relative balance of projects spread across the three themes in the fund reveal an emerging political economy of addressing IWT with increasing international support for responses anchored in law enforcement, crime and security. There were 6 funded projects under 'developing sustainable livelihoods for communities affected by IWT'; 7 under 'reducing demand for wildlife products'; and 62 projects under 'strengthening law enforcement and the role of the criminal justice system'. The disparity is clear: approximately ten times more funding went towards projects associated with law enforcement and the criminal justice system than the other two priority areas. The geographical breakdown of funded projects also indicates more projects in certain regions: Africa (40), Asia (25), South America (4), Europe (0), North America (0), Middle East (0), Central Asia (3), Oceania (0), mixture of Asia and Africa (3).⁶ We next turn to how these discourses, framings, and approaches to IWT materialise on the ground in everyday practice.

Enforcement First approaches to tackling IWT

The priority given to combatting IWT is reshaping conservation practices on the ground in much of sub-Saharan Africa and parts of Asia. There is an acknowledgement that this can lead to more violent encounters. Notions of a war for biodiversity or war on poachers, and the language of 'combatting' poaching, it seems, leads to the broader acceptance of certain kinds of human enemies and casualties. Responses anchored in law enforcement and military techniques are not the option of last resort when all other approaches have been tried and have failed, instead they are becoming the option of first resort and are sometimes blended together with more community oriented approaches via local level participation in surveillance, patrolling and reporting. Including local people in law enforcement and anti-poaching has had mixed results depending on whether or not the initiatives are bottom up, sensitive to local contexts or externally imposed in a top-down manner (Roe et al 2015; Cooney et al. 2017; Massé et al. 2017).

The responses of the conservation community to IWT increasingly focus on tackling the illegal hunting of wildlife rather than other approaches such as demand reduction, including public information campaigns by international conservation NGOs and donors to persuade people to stop using rhino horn or tiger parts for medicinal purposes, or raise awareness about the impacts of using ivory for ornamental carving on elephant populations. These responses materialise in national parks and wildlife reserves as the 'source' areas for wildlife, including the most iconic species like rhinos, elephants and gorillas. This has led to a broader shift towards security-oriented approaches in and around protected areas through militarisation and law enforcement to stop poaching (Duffy et al. 2019). As highlighted by the funding patterns described above, the law enforcement first approach, or conservation law enforcement, has intensified and focused on protected areas particularly in Sub-Saharan Africa.

⁶ DEFRA, IWT Challenge Project funding, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/811381/iwt-project-list-2019.pdf accessed 05 June 2020.

In the current context, the use of violence in conservation law enforcement and by frontline conservation law enforcement, namely rangers, is authorised and normalised by three intersecting objectives representing a coming together of territorial, sovereign and biopolitical logics and practices: securing the space of conservation areas, punishing transgressors of conservation space and law, and protecting nonhuman life (Massé 2020). These approaches do not manifest everywhere, nor to the same degree. Violent and especially militarised forms of conservation are intensifying around specific species and places that continue to be shaped by the legacies of conservation's colonial histories. Here, we delve further into what green militarisation and conservation law enforcement look like. The case of rhino poaching in South Africa's Kruger National Park (KNP) and in the neighbouring conservation areas in Mozambique are examples of the type of place-based research that is needed across a broader spectrum of protected areas, and across regional, ecological, political and social contexts to build a broad comparative picture of where and to what extent conservation is militarised and what factors might shape this.

Militarising the fight against rhino poaching in South Africa

Beginning in 2008, South Africa began to see a dramatic increase in rhino poaching, from 13 killed in 2007 to over 1,200 in 2014, remaining at over a thousand rhino killed per year until dipping to 892 in 2018. This increase in rhino poaching was driven by increased consumer demand for rhino horn, largely in Vietnam and China, that drove the price of rhino horn on the black market to the same level as gold and cocaine, or even more. The crackdown to secure Kruger National Park, home to approximately 40% of the world's remaining rhino and thus the centre of rhino poaching, has been severe and militarised.

While there is a long history of involvement of the military in Kruger, the current militarised response and re-orientation of the training and hiring of rangers arguably began around 2010 (Lunstrum 2014; Humphreys and Smith 2014; Annecke and Masubelele 2016). In 2011, South African National Parks (SANParks) hired Retired Gen. Johan Jooste, who made his career in Apartheid South Africa's border wars, to lead the anti-poaching response, which became known as the 'war' on poaching. Currently he oversees anti-poaching, law enforcement and security for the 22 conservation areas under SANParks. Across the border in Mozambique, the Limpopo National Park also established a specialised anti-poaching unit under the leadership of a Portuguese special forces member. More recently a separate anti-poaching unit has been set up in the Park by a private military company staffed in part by former special forces of various countries. Under the auspices of military or former military personnel, ranger training has also shifted. Whereas rangers typically are trained in a wide variety of conservation tasks like biological and ecological monitoring, they now undergo paramilitary training focused almost solely on law enforcement and anti-poaching. Conservationists working with SANParks explain how 'new recruits to conservation are immediately put through six weeks of paramilitary training rather than conservation' (Annecke and Masubelele, 2016: 200). Rangers have become a paramilitary anti-poaching force focused almost exclusively on anti-poaching (Annecke and Masubelele, 2016).

Rangers also use military technologies (Lunstrum, 2018) and are increasingly armed with assault rifles meant for shooting people, not wildlife. They are also supported by the military and by private security companies as South African and Mozambican governments and conservationists have partnered with companies and anti-poaching organisations led by former military and special forces personnel. Several private conservation areas adjacent Kruger use private security and non-governmental organisations led and staffed by former

military and special forces personnel from Africa and elsewhere (Massé and Lunstrum, 2016).

The violent outcomes of militarisation to protect rhinos is clear. Some estimate that between 2010-2015 over 500 Mozambicans were killed by rangers in Kruger, which does not include South Africans killed or anyone shot and then arrested.⁷ The militarised policing strategy has also entailed the removal of communities from within Mozambican national parks and conservation areas so that the areas along the border with Kruger are easier to police (Lunstrum 2016; Massé and Lunstrum 2016), in addition to the blanket criminalisation of people and communities living within certain areas (Witter and Satterfield, 2018). These violent outcomes, or indeed the use of violence, are trends we see elsewhere to address poaching concerns (Barbora, 2017; Asiyanbi 2016; Dutta, 2020; Mabele, 2016; Weldemichel, 2020; Marijnen and Verweijen, 2016).

Forging new spaces of conservation criminalisation and law enforcement

As poaching, and more specifically wildlife trafficking, become integrated into a global politics of security and transnational organised crime, conservation law enforcement expanded outside the spaces and institutions that traditionally dealt with conservation. More specifically, conservation law enforcement moved to police what is increasingly referred to as wildlife crime within and across borders (Massé et al. 2020). For example, in response to elephant and rhino poaching, Mozambique created a new Police for the Protection of the Environment and Natural Resources, commonly known as the environmental police (Massé, 2020). The environmental police operate both within protected areas to stop poaching and outside protected areas, using road blocks, raids, and policing the flow of wildlife products within and across the country's borders. More broadly, over the past decade there has been an "increasing amount of funding and support for law enforcement and policing efforts outside of the traditional spaces and institutions of biodiversity conservation. These include support for (cross-border) intelligence activities, wildlife crime investigation and prosecutorial capacity, and support to (trans)national law enforcement and policing operations" (Massé and Margulies, 2020: 13). This funding is linked to the challenge that IWT poses to biodiversity. But it is also intimately connected to the framing and discourse of IWT as a national and global security concern (Duffy, 2016; Massé and Margulies, 2020).

While a certain amount of law enforcement is needed, and addressing IWT is indeed a worthwhile pursuit, the funding provided for it can displace funding for alternative approaches to conservation and IWT. The combination of a shift in funding priorities coupled with a greater focus on the paramilitary training of rangers reveals a clear trend in how the framing and discourses of IWT are having material impacts on the ground, reshaping what conservation practice is and does. Moreover, these enforcement-first approaches fail to address the root causes of poaching and IWT. The first of these includes the global demand for wildlife products, often by more affluent sectors of society across the world. Second is the poverty, inequality and vulnerability of many people who live in and around protected areas in the Global South who see poaching as a means of survival and/or escaping dire poverty. In many areas, including in the Mozambique-South Africa borderlands, conservation has deepened these hardships (Carruthers 1995; Lunstrum and Givá 2020; Witter and Satterfield

⁷ [https://www.reuters.com/article/mozambique-poachers-idUSL5N11R2OP20150921#:~:text=Africa's%20Kruger%20since%202010%20%2Dformer%20leader,-2%20Min%20Read&text=MAPUTO%2C%20Sept%2021%20\(Reuters\),former%20Mozambican%20president%20Joaquim%20Chissano.](https://www.reuters.com/article/mozambique-poachers-idUSL5N11R2OP20150921#:~:text=Africa's%20Kruger%20since%202010%20%2Dformer%20leader,-2%20Min%20Read&text=MAPUTO%2C%20Sept%2021%20(Reuters),former%20Mozambican%20president%20Joaquim%20Chissano.)

2018). The militarised and top-down law enforcement approaches only risk aggravating these hardships and further creating enemies, rather than allies, of conservation in the fight against poaching (Roe et al. 2015; Hübschle 2016). This is especially the case where efforts to address poaching are steeped in violence.

Political Ecologies of Violence

The enforcement-first approach has certainly gained traction and elicited a great deal of international support, however it is important not to overstate its novelty. As political ecologists have extensively argued, the inter-relationships between conservation and violence have a long history inextricably linked to colonialism. Indeed, mainstream conservation in Sub-Saharan Africa has been characterised by enforcement-first, as acknowledged through common refrains of fortress conservation and fences and fines approaches (Brockington 2002; Ashaba, 2020; Mbaria and Ogada, 2016). The roots of these approaches and their connections to militarisation run deep. What is argued to be the “first” national park, Yellowstone National Park in the United States (established in 1872), was first referred to as “Fort Yellowstone” (Jacoby, 2014). For over 30 years, Yellowstone National Park was under the authority of War Department, commanded by the military that established a base there. Militarised force and violence were key to policing the park against poachers and keeping it clear of unwanted, largely indigenous, people. The current manifestation of enforcement-first approaches merely builds upon and intensifies these long-standing approaches.

In South Africa, the militarised approach builds on a history of military-conservation intersections in Kruger and the surrounding borderlands (Lunstrum 2015). Kruger was home to South African National Defense Force (SANDF) military bases during the Apartheid era; Kruger was a staging ground for RENAMO, a Mozambican and apartheid-backed, anti-communist armed insurgent group, which led attacks into Mozambique. The military has also long been stationed in Kruger along Mozambique’s border to prevent unwanted and illicit movement between the two countries, including of anti-Apartheid activists. One of the main differences with the militarisation occurring in Kruger more recently is that it takes place in direct response to a threat to conservation, and one species in particular, the rhino. Hence, militarisation in Kruger and elsewhere is motivated by an urgency to protect nonhuman life from human threats. Indeed, it is the urgency of a threat to nonhuman life that normalises and permits the use of violence within and around protected areas (Büscher and Fletcher, 2018). McClanahan and Wall (2016: 141) use the term “warrior conservation” to refer to the deployment, intensification and normalisation of this “militaristic violence and spatial policing” to protect wildlife and their habitats. What is important in their description of anti-poaching, and in coming from the discipline of criminology, is their highlighting of the coming together of militarisation, policing and violence; they do not exist apart, but coalesce in various forms to respond to poaching and protect species and spaces deemed under threat.

With that said, the violences of conservation are intimately linked to the ways in which threats to nonhuman life from poaching and trafficking have become integrated into the global security apparatus and broader security politics as described above. We also see this manifest at the national level. For example, there is a specific rhino-infused national security rhetoric in South Africa (Humphreys and Smith 2014; Ramutsindela, 2016). The increase in rhino poaching is often referred to as a ‘war’ on rhinos with the need to protect rhinos as a ‘war’ on poaching (Büscher and Fletcher, 2018; Lunstrum, 2014). Reflecting the broader dynamics of framing IWT as a security threat, the mobilisation of war-like language and security approaches stems from the framing and perception of rhino poaching as an attack on South Africa’s national and natural heritage by armed criminal syndicates crossing the border

from Mozambique (Lunstrum, 2014). Hence, in South Africa and elsewhere, the threat to and the loss of (certain) species has led to new forms of interventionary power that forge novel spaces of military and civilian engagement (Holmqvist, Bachmann, and Bell 2015: 1).

Conclusion

Focusing on the political ecologies of violence allows us to reveal and highlight the intersections between local level processes and much wider global dynamics, especially the power asymmetries and injustices produced by conservation policies. The integration of conservation and security concerns brought on by increasing anxieties about the impact of IWT has led to an enforcement-first approach. Analysing this enforcement-first approach reveals the interplay between environmental protection and violence. Framing IWT as a form of wildlife crime and as a security concern legitimizes militarised law enforcement approaches to protect wildlife, often with violent and unjust consequences. Again, it is important to highlight continuities between this current phase and the long standing patterns of violence, exclusion and dispossession which have been part and parcel of conservation practice, especially in Sub-Saharan Africa. Therefore, it is essential that we take a long durée approach in order to develop a fuller understanding of the patterns of violence associated with conservation, and how and why they endure and evolve.

As this chapter demonstrates, using political ecology allows us to locate the uneven power relations in the ways that environmental challenges emerge and are dealt with, and in the violence and injustices that unfold. The political ecologies of a site-specific case of anti-poaching in South Africa's Kruger National Park to protect rhinos sheds light on these much wider dynamics. Indeed, one of political ecology's strengths is its attention to detailed empirical analyses of conservation violence, creating a strong base from which to develop broader comparative research at national, regional and global levels. In line with Peluso and Watts (2001) definition of violence, our political ecology approach draws attention to the ways that violences in conservation are rooted in specific local histories and social relations, but which are clearly connected to larger processes of material and discursive transformation and power relations. This is very apparent in our analysis of the security and wildlife crime framing of IWT and the shift in funding available from global donors towards enforcement-first approaches. Comparative politics thus has a role to play in developing further research into how, why, to what extent and with what impacts conservation-related violence (and specifically militarisation) emerges across different contexts (regional, ecological, political), types of protected areas, and levels of poaching and other threats.

Finally, what lessons might be learned from IWT with regards to broader interventionary power and the use of violence in protecting the environment and policing human-environment relations? In thinking beyond conservation and IWT to a broader political ecology of violence, we are concerned with how environmental concerns and challenges enable the forging of new modes, spatialities and rationales for the use of violence, which are especially directed at already marginalised and vulnerable populations. We are beginning to see this with climate change, which is garnering attention at the highest levels of government and military policy because of its (perceived or actual) implications for national security of the worlds' most powerful countries (Parenti, 2011; Dalby, 2013; O'Lear, 2018). As global environmental challenges from mass extinctions to climate change only continue to grow and intensify, political ecologies of violence must attend to the ways in which the use of violence and enforcement-first approaches in pursuit of conservation, and other environmental protection, affects different groups and places in highly unequal ways.

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