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A Feminist Political Ecology of Wildlife Crime: The gendered dimensions of a poaching conflict and its impacts in Southern Africa

Francis Massé [a, *], Nicia Givá [b], Elizabeth Lunstrum [c]

[a] *Department of Geography and Environmental Sciences, Northumbria University, Ellison Place, Newcastle upon Tyne NE1 8ST, United Kingdom* francis.masse@northumbria.ac.uk

[b] *Faculdade de Agronomia e Engenharia Florestal, Universidade Eduardo Mondlane, Campus Universitario, Avenida Julius Nyerere N. 1, Maputo, Mozambique*

[c] *School of Public Service, Boise State University, 1910 University Drive – MS 1900, Boise, ID 83725, United States*

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Abstract

The ways in which poaching economies and militarized responses to shut them down intersect with local gender norms and dynamics remain underexamined. We address this by developing a *feminist political ecology of wildlife crime* by drawing on feminist political ecology and complementing it with insights from feminist criminology. This framework centres local systems of gender norms and their intersection with socio-economic dynamics across scale to offer a fuller understanding of the drivers of participation in poaching economies and their increasingly deadly impacts, a reflection of the expansion of militarized conservation practice. Drawing on fieldwork in the Mozambican borderlands adjacent to South Africa's Kruger National Park on the illicit rhino horn economy, we show how two stark gendered dynamics emerge. First, long-standing norms of masculinity, in particular caring for family, in one of the poorest regions of Southern Africa motivate men to enter the trade despite the risks. Second, women whose husbands have been killed while hunting rhino embody the indirect human consequences of a violent poaching economy. The loss of their husbands, a broader context of poverty, and gendered norms concerning widows articulate in ways that leave these women and their children to experience more acute and long term vulnerability. We discuss what lessons a feminist political ecology of wildlife crime offers for understanding and addressing poaching conflicts, wildlife crime and illicit resource geographies more broadly.

Keywords: Poaching; Feminist Political Ecology; Conservation; Green Militarization; Illegal wildlife trade; Criminology

1. Introduction

Over the past five years, the questions we posed to officials and people living in the rhino poaching hotspot of southern Mozambique about the consequences of the poaching conflict provoked a common response concerning "the crisis of widows." This refers to the hundreds of women whose husbands have been killed by anti-poaching efforts while hunting rhino across the border in South Africa's Kruger National Park. Beginning in 2009, Kruger has seen a large-scale increase in commercial poaching of rhino largely by impoverished Mozambican men looking to earn substantial sums of money by selling rhino horn to criminal syndicates. The year 2015 saw the peak of poaching activity, with 2, 466 known incursions by rhino poaching groups into Kruger (Martin, 2017). Not all of these groups come from Mozambique, but the numbers represent the scale of rhino poaching in the region. These men are confronted by a militarised, often lethal, response by South African and Mozambican anti-poaching and security forces. While figures are not certain, reports suggest that over 500 Mozambican men were killed by anti-poaching forces in Kruger from 2010-2015, with more being killed since then (Reuters, 2015).[1] Behind these numbers is the fact that, with the death of a suspected poacher, wives and children are often left behind with little social safety net or income-generating opportunities. Their vulnerability, and that of their households and larger community, is exacerbated. Rhino poaching related deaths of mostly young men and the increasing vulnerability of women highlight the gendered and embodied consequences of commercial poaching and militarized responses meant to stem the trade.

How poaching economies and the consequences of these militarized responses – often referred to as green militarization (Duffy et al., 2019; Lunstrum, 2014) – intersect with local gender norms and dynamics remain underexamined. To address this, we draw on feminist political ecology, complementing it with insights from feminist criminology, to develop a feminist political ecology of wildlife crime. Drawing on our long-term ethnographic research, we use this framework to situate rhino poaching and related militarized responses within a broader gendered political economy and local system of gendered norms and relations. This helps us understand the different ways in which the rhino poaching conflict is embodied in and experienced by men and women who live in the villages of the Mozambican borderlands adjacent to Kruger National Park. On the one hand, long-standing norms about men's role as

[1] SANParks has disputed the precise numbers, but there is consensus that hundreds of suspected rhino poachers have been killed in Kruger.

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income earners in one of the poorest areas of Southern Africa motivate many men to risk their lives in pursuit of rhino horn. The loss of young men at the hands of militarized conservation practices, in turn, increases the vulnerability of widows especially as they have few other options to support themselves and their children beyond increasingly difficult subsistence agriculture. These women embody the negative and often indirect human consequences of a violent poaching economy, securitized responses including increased vulnerability. While some of this vulnerability can be traced back to the structure of traditional systems of masculinity, marriage and child rearing, the immediate cause of their increased vulnerability is militarized conservation. In jailing husbands for lengthy sentences or killing them, militarized responses erode the gendered safety nets and social fabric of communities, exacerbating poverty of households and especially women, despite the accumulation of significant wealth by men in the short term.

We begin by providing an overview of our methods and how we came to understand gender relations as an important variable in shaping the poaching conflict. We then review the rich scholarship on the political ecology of conservation and responses to poaching economies. After highlighting how gender is largely missing from these analyses, we turn to feminist political ecology, complementing it with insights from feminist criminology, to develop the conceptual foundations for a feminist political ecology of wildlife crime. We mobilise this framework to examine how local norms of gendered expectations, roles, and marriage systems intersect with local political economies to shape participation in rhino poaching and related human impacts. We end by discussing what lessons a feminist political ecology of wildlife crime offers for understanding and addressing wildlife crime and their geographies more broadly.

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2. Researching the lived realities of a poaching conflict

Our understanding of the rhino poaching economy is based on ethnographic research by all three authors on conservation and the poaching conflict in the Mozambique-South Africa borderlands since 2010. The majority of this research took place in the Massingir District of Mozambique. Located within and just outside of Mozambique's Limpopo National Park and adjacent to Kruger and the South African border, Massingir is the epicentre of the rhino poaching economy. We also conducted research in other districts in the borderlands where villages are involved in and affected by rhino poaching. Our research included substantial time spent living and researching in communities in Massingir and surrounding areas. In

addition to our ethnographic observation and conversations, we draw on over 100 interviews between 2012-2019 about rhino poaching and its impacts with community members and leaders, as well as conservation, development, security and government officials in Mozambique. To more directly examine the gendered dynamics of the poaching conflict, in 2019 we conducted 23 interviews, mostly taking a life-history format, and two focus groups with women whose husbands were killed while hunting rhino. To protect anonymity, names of respondents have been changed to pseudonyms.

[Map 1: Map 1. Great Limpopo Transfrontier Park and location of Massingir. Cartography credit: Benjamin Sweet, Boise State University.]

There was an evening during field research in Massingir in early 2019 when Authors A and B were discussing the interviews we had conducted earlier that day with a number of women whose husbands were killed while hunting rhino in Kruger. It dawned on us that the dynamics we were witnessing were deeply shaped by gender relations. This prompted lengthy conversations with local friends and research assistants about the local dynamics of gendered relations. After some discussion, we refined our research strategy to specifically take into account local systems of marriage, families, and household labour. In talking through these processes with women (including widows), as well as men, we came to understand much more clearly what happens when a woman's husband dies and how the killing of a suspected poacher has consequences far beyond the loss and transformation of one individual life. With hundreds of young men in the area being killed in the span of a few years, we came to understand what these deaths mean for individuals, households, and broader communities now and into the future. Our conversations also opened up avenues to discuss why men continue to chase lucrative rhino horn despite the known high risk and devastating consequences for their families if arrested or killed. It is precisely at this intersection – of understanding how gender norms are a contributing factor to men risking their lives to hunt rhino and how this leads to the "crisis of widows" – that a feminist analysis becomes most productive and contributes to scholarship on poaching and conservation's securitisation.

3. Political Ecologies of Conservation and Poaching

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Scholarship on the political ecology of conservation has long been at the forefront of understanding conservation conflicts and the responses of state and non-state actors (Margulies, 2019; Peluso, 1992; West, 2006). Central to these analyses is the propensity of conservation interventions, especially those based on the protected area model, to dispossess, criminalize and increase the vulnerability of already marginalized and vulnerable populations (Brockington, 2002; Carruthers, 1995; Mbaria and Ogada, 2016; Neumann, 1998; Peluso, 1992). Laws created to protect wildlife and their habitats in and around protected areas have and continue to criminalize certain types and practices of resource use like hunting in addition to criminalizing access to spaces designated as protected (Bluwstein, 2018; Matusse, 2019). In addition to land, resource, and livelihood dispossession, creating protected areas can also involve the forced and/or involuntary physical relocation of people (Agrawal and Redford, 2009; Brockington and Igoe, 2006).

Responses to recent increases in poaching mirror, reinforce and intensify these forms of conservation-related violence and vulnerabilities. Paramount here is green militarization, defined as "the use of military and paramilitary (military-like) actors, techniques, technologies, and partnerships in the pursuit of conservation" (Lunstrum, 2014, 817). Militarized conservation is the explicit approach used to address rhino poaching in Kruger National Park, the context of our empirical research (Annecke and Masubele, 2016; Buscher and Ramutsindela, 2016; Hübschle and Jooste, 2017; Luntrum, 2014; Ramutsindela, 2016). We find similar trends of militarised or otherwise heavy-handed and violent approaches to conservation developing and growing across a wide variety of contexts in response to poaching and other illicit uses of biodiversity (Asiyanbi, 2016; Barbora, 2017; Duffy et al., 2019; Dunlap and Fairhead, 2014; Dutta, 2020; Mabele, 2016; Marijnen and Verweijen, 2016; Simlai, 2015; Weldemichel, 2020).

Rhino and other forms of commercial poaching are no longer merely conservation concerns. Even when not outrightly militarized, approaches to reduce poaching and wildlife trafficking treat these practices as serious crimes that require appropriate responses (Hübschle, 2016; Massé et al., 2020; van Uhm et al., 2021). Together, these foreground the need for a political ecology of *crime* to account for what might motivate people's participation in what are illicit and increasingly criminalized wildlife economies, how this occurs, the state and nonstate responses, and the resulting consequences. In particular, it is vital to understand the impacts

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that each of these has on individuals and the wider web of socio-economic (and ecological) relations that they are intimately a part of.

It is here where the broad field of critical criminology complements the political ecology of conservation. Critical criminology offers the conceptual grounding and heuristic toolkit for understanding the ways in which the oppressive, dispossessory and marginalizing processes and legacies of colonialism and capitalism shape ideas about criminality, people's engagement in illegal activities, and responses to them (Brisman, 2019; Carrington et al., 2019; Carrington and Hogg, 2017; Carrington et al., 2016; Lynch et al., 2000; Michalowski, 1996; Ruggiero and South, 2013). Specific insights from the subdiscipline of green criminology – "the exploration and examination of cause of and responses to 'ecological,' 'environmental,' or 'green' crimes, harms, and hazards" (Brisman and South, 2013, 2) – help us to think seriously about how these legacies create a context of environmental and socio-economic injustices and inequalities that generates interest in illicit activities and activities that cause environmental harm, including poaching (Wyatt, 2013).

The political ecology of conservation literature, with support of green criminology, thus provides three important and inter-related pillars for understanding poaching economies. First, poaching economies exist within a broader political-economic context that can shape vulnerabilities in ways that spur involvement in poaching economies. Second, certain practices of conservation contribute to deepening and expanding existing vulnerabilities and additional conservation-related injustices. Third, this deepening sense of injustice and vulnerability at the hands of conservation provokes anger and hostility towards biodiversity protection and wildlife itself. While this may erode much-needed support for conservation (Hubschle 2017; Mamba et al. 2020, it can also make people more likely to engage in and become more susceptible to recruitment in illicit wildlife economies for reasons of survival and retribution (Duffy et al., 2015; Naro et al., 2020; Witter, 2021; Lunstrum et al. Forthcoming). These intersecting lines of analysis that emerge from the political ecology of conservation, poaching, and green criminology, materialize starkly in the Mozambique-South Africa borderlands and the rhino poaching conflict.

3.1 Poverty, risk taking and the emergence of rhino poaching in the Mozambican borderlands

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The broader regional political-economic context that shapes young men's participation in the rhino poaching economy, a theme that has emerged clearly in our own research and other scholarship, is a much-needed first step in understanding the gendered dynamics of rhino poaching. The recruitment of men into the poaching economy is facilitated by the existence of poverty, unemployment and inequality tied to a long history of colonial and capitalist exploitation in the region (Hübschle, 2017; Lunstrum et al., Forthcoming). With extremely limited wage labour opportunities in Massingir and surrounding areas, since Portuguese colonization the majority of men have worked as migrant labourers in South Africa's mines and plantations, spending upwards of 10 months a year away from home. As many men have explained to us over more than a decade of research in the area, migrant labour, especially that in the mines, is dangerous and difficult. Yet the prospect of labour remittances has made the risks worth taking, as salaries have enabled buying household goods as well as investing in cattle, which is an important local symbol of masculinity and a source of food and material security that increases the resilience of one's family in the event of drought, floods or job loss.

Unfortunately, employment prospects in South Africa, including the mines, have dwindled over the past decade (De Vletter, 2007). Reflecting a common sentiment, one man explained: "The job conditions in South Africa nowadays are precarious. I think this is also contributing to the reduction of the emigration levels" (Interview 2013). This context is made more difficult by the fact that a passport, which can be difficult to obtain, is now required to cross the border. One man explained, "Now we need to pay money, pay for a passport, and all of this makes it more difficult and the benefit of going by foot is gone."

This reference to the loss of traveling across the border by foot speaks to a second dynamic that has decreased labour migration especially among the poorest community members: the militarized hardening of the border to stem rhino poaching (Lunstrum, 2014). As Kruger, SANParks, and Mozambican counterparts deploy more rangers and technology to strengthen enforcement efforts along the border, Kruger's eastern boundary, which doubles as the border with Mozambique, has become more fortified and increasingly lethal. Beginning around 2010, any unauthorized black African seen on foot in Kruger is suspected of being a rhino poacher and treated as such, which means being subjected to arrest, violence, and sometimes death (Lunstrum, 2014). As a result, the long-standing practice of walking across the border and Kruger to neighbouring South African towns and cities, both to find work and visit

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family, had come to an end. When asked if he still goes to South Africa on foot, one man explained, “No, nowadays it is very dangerous, there are no more conditions for that, and I don’t want to risk my life again” (Interview 2013). Another man similarly explained, “No, it is very dangerous. If the patrol gets you within the park, they may even kill you. So, Mozambican people nowadays do not even try” (Interview 2013).

Many men associate the growing difficulties of going to South Africa with increased poverty and hardship. One man explained this phenomenon, directly connecting it to conservation initiatives and the difficulty it creates for a man to provide for his family:

> The increase in poverty is connected to the park because the park closed the route that people used to go to South Africa […]They closed this because they don't want people to cross. […] There is no work here in Mozambique […] one benefit that we had before was being able to go to South Africa on foot without having to pay anything or have a passport.

A community leader further explained how the majority of people in the area are unemployed, a reality exacerbated by fewer jobs available in South Africa. The result, he explained, is young men who are sitting around, hopeless about their future, and approached by poaching networks who offer them a lucrative alternative (Interviews 2017). Indeed, when referring to rhino poaching, young men often compared it with migrant labour to earn a living, saying: “It’s our mine” and “this is our mining” (Interview 2017).

Two decades of trying to create a wildlife and conservation frontier in the Mozambican borderlands through the removal of people and a loss of access to land and resources that sustain long-standing livelihoods has further exacerbated these vulnerabilities (Milgroom and Spierenburg, 2008; Lunstrum and Ybarra ,2018; Witter, 2021). The creation of this conservation frontier is also enriching Mozambican elites and white (largely South African) foreigners creating a situation not just of absolute poverty, but of relative poverty and increasing inequality between different groups (Lunstrum et al., Forthcoming). Layered on top of this is the increasing criminalization of poaching, including new laws moving illegal hunting penalties from fines to 12-year prison sentences. Intensified criminalization is accompanied by the creation of new security, intelligence, and law enforcement apparati and the use of heavy-handed, often violent and (para)military approaches against suspected

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poachers, but also communities more broadly in and around protected areas in the region (Büscher, 2018; Duffy et al., 2019; Lunstrum, 2014; Massé, 2020; Ramutsindela, 2016; Witter and Satterfield, 2018). Tragically, the combination of ramped up enforcement and increasing numbers of men signing up to hunt rhino has resulted in the deaths of hundreds of Mozambican men suspected of poaching in Kruger National Park at the hands of conservation officials, and the arrest of countless more. Many people in and around the area harbour a sense of injustice stemming from increasingly violent anti-poaching and conservation efforts (also see Hübschle, 2017; Lunstrum and Givá, 2020; Witter, 2021).

While the above overview provides important insight and strong basis for understanding poaching, and specifically rhino poaching economies, militarised responses, and their respective impacts, gender and gender relations are largely missing from analyses of poaching and conservation's militarisation and securitisation. This reflects similar critiques of green criminology as being "gender blind" (DeKeseredy, 2015, 182; Sollund, 2020). What might taking gender seriously add to our understanding of the rhino poaching conflict, and wildlife crime and efforts to address it more generally? Building on the strong underpinning of political ecological scholarship of conservation and poaching, we turn to feminist political ecology to develop a framework for thinking through the gendered dynamics of the rhino poaching conflict and its human impacts.

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4. From a political ecology of conservation to a feminist political ecology of wildlife crime

We understand feminist political ecology as an approach to analyse "gendered experiences of and responses to environmental and political-economic change that brings with it changing livelihoods, landscapes, property regimes, and social relations" (Hovorka, 2006, 209). Feminist political ecology pays particular attention to gendered divisions of labour, access, and participation to understand resource use and the differential effects of changes in land and natural resource governance, tenure and access (Dao, 2018; de Vos and Delabre, 2018; Lamb et al., 2017; Ndi ,2019; Schroeder, 1999). Central to a feminist (political ecological) analysis is interrogating the power and material effects of gendered discourses, including norms of masculinity and femininity. Gendered discourses and expectations "set in motion differentiated and unjust life opportunities and exclusions" (Elmhirst, 2011, 130) and create different "rules of the game" for men and women (Kandiyoti, 1988, 274). Feminist political

ecology examines how these gendered opportunities, exclusions, and rules intersect with shifts in socio/political-ecological relations and natural resource use, such as those brought on by conservation and the establishment of protected areas (Perry and Gillespie, 2019; Gillespie and Perry, 2019). Such shifts extend to poaching economies and changes in on-the-ground practices of conservation, including anti-poaching and its shifts towards a more violent, militarized approach.

We thus approach gender as “a critical variable” (Rocheleau et al., 1996, 4; Sultana 2021), and gendered relations as powerful structures, shaping poaching economies and how they are differentially experienced. This includes consequences of the increasing vulnerability of women even amidst what could be termed an economic boom fuelled by the rhino economy. Centering gender is not about displacing socio-economic factors, class and processes of colonial, capitalist, and conservation-induced (under)development and exploitation – which all inform the dynamics of (rhino) poaching economies (Hauenstein et al,. 2019; Hübschle, 2017; Lunstrum and Givá, 2020). Nor do we seek to essentialise gender and normative gender roles, or see them as static independent variables or analytical categories. Following feminist political ecology, we focus on how gender *intersects* with dynamics of poverty, underdevelopment, dispossession, and violence resulting from processes and practices of capitalism, colonialism, and conservation to re-shape human-environment relations and related consequences for men, women, and households (Elmhirst, 2011; Mollett and Faria, 2013; Sultana 2021).

We also draw on feminist criminology to bolster political ecology’s conceptual underpinnings to more acutely account for the specific dynamics of participation in *illicit* wildlife economies and its multi-dimensional impacts, especially on women. Feminist criminology critically examines and deconstructs intersections between participation in crime and “deviant” activities with the performance of masculinity, gendered cultural norms and the social pressures and structures that encourage or allow it (Carrington et al., 2014, 473; Chesney-Lind and Morash, 2013; Messerschmidt, 1986; 2014; Renzetti, 2013). The different ways in which women and men experience crime, responses to it, and how a person is victimized or negatively impacted emerge in part from the local context of gendered norms and relations (Chesney-Lind, 2006; Ogle and Batton, 2009). A novel dimension of victimization are processes of secondary or indirect victimization that draw attention to the impact of (environmental) crime on those not directly involved in the act (Davies, 2014). We

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draw on Davies (2014) to understand how processes of victimization in the rhino poaching economy and green militarization extend beyond the ranger, rhino and the poacher to families, socio-economic networks and communities. Importantly, indirect victimization resulting in socio-economic injustices can be caused by the illegal act, but also by enforcement efforts. Distinguishing between victimization caused by the illegal act and that caused by enforcement efforts helps ensure the blame for victimization does not merely fall on victims or perpetrators, but holds violent and unjust enforcement efforts to account. Widows from the rhino poaching economy sit at the intersection between these two processes of indirect victimization. They become widows (victims) through both their husbands who engage in a risky, criminalized activity, but also by a violent, (para)militarized and often lethal anti-poaching and law enforcement response.

Drawing from these insights, how might gender dynamics shape men's participation in rhino poaching, women's victimization, and the consequences of militarized conservation? To begin answering this, we draw on three core contributions of feminist approaches to complement existing political-ecological and broader social science scholarship on poaching and securitised conservation: 1) accounting for the relational dynamics of gender; 2) interrogating the role of local gender norms and structures and how they intersect with broader political-economic and political-ecological processes and 3) re-scaling analyses to the level of the community, household, and individual.

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5. Feminist political ecology of rhino poaching and green militarisation

In this section we mobilise a feminist political ecology framework to examine how risking one's life to hunt rhino, the state's militarized response, and the indirect and ongoing harms faced by women articulate with discursive and material dynamics of gender norms and relations. We begin by examining the norms of masculinity that influence young men to participate in the risky business of rhino poaching.

5.1 The masculinities of the rhino poaching economy

The luck of young men who hunt rhino often quickly runs out as they make return trips to Kruger in search of more horn. One day many simply never return home. Hence, people in Massingir often use the expression "those who play with death" to refer to men who go to

Kruger in pursuit of rhino horn. We repeatedly asked young men, their families, and people living in the area if men were not afraid of dying in Kruger, especially after seeing so many people being killed or arrested. The common answer, as highlighted above, is that men have long risked their lives doing back breaking work in the mines for little pay, so why not take a higher risk for a higher reward. “Even in the mines we died!” one man said. Resting beneath this embrace of risk is a frequently cited sense of hopelessness experienced by young men, namely that it is not worth living a life in which one cannot support their family. Rhino hunting, they say, is just another way of doing the same thing – of a man going to South Africa to earn money to support one’s family and gain a sense of worth – especially when a variety of circumstances have coalesced to limit already limited opportunities and morale. The latter begins to highlight the importance of gendered norms around masculinity and family in the rhino poaching economy.

The traditional Shangaan system of marriage in the rural Mozambique-South Africa borderlands involves *lobola*. Lobola is the process in which a man’s family offers the prospective wife’s family a voluntary ‘payment’ or gift in return for their daughter marrying the son. But lobola is more than ‘payment’, it establishes and strengthens social ties in a three-dimensional relationship between the couple, the families (creating bonds of descendants), and ancestors (ensuring protection and social order) (Furquim, 2018). Shangaan culture is also polygamous. Important for our analysis is that being able to lobola, marry one or more wives, and materially providing for them and children are important signs of masculinity that many men strive for. Investments in cattle by men, for example, are often done with the thinking that as cattle reproduce themselves, a man will use them for the lobola of an additional wife. In addition to and a result of it being used for lobola, cattle itself is a form of male cultural capital in the area; it is a symbol of masculinity, power and success. As explained by one village leader:

> Here in our village cattle signifies honour and dignity because when someone has a lot of livestock, this demonstrates that he is truly a man, that is, he has power. When people do not have livestock here, they are considered as women, and this ends up in a certain way compelling people to raise livestock and be seen as true men (Interview 2013).

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Set against a larger context of acute poverty, the reduction in the ability of men to migrate to South Africa, and the subsequently struggle to provide for their family, earn the necessary money to buy cattle, and lobola a wife – all Shangaan symbols of masculinity – are emasculating phenomena. Many men, especially young men, confided about the low levels of morale, self-worth and a sense of hopelessness from not being able to work, start and/or support their family and achieve their modest dreams. This sense of hopelessness and despair is exacerbated by years of severe drought in the area that has rendered agriculture all the more challenging. Drought and resettlement of communities from the Limpopo National Park has resulted in increased food insecurity and also resulted in the loss of many cattle for affected households (Givá & Raitio, 2017).

Importantly, this inability to lobola a wife, materially provide for them, and resultant loss of self-worth leave men susceptible to recruitment by poaching syndicates – groups who recruit rhino poachers, furnish them with hunting rifles, and buy the horn. A regional leader drew a direct link between providing for one's family and feelings of masculinity saying there is pressure to go hunt rhino because those who don't and remain unable to provide for their family are insulted by those involved in poaching as being "not true men" (Interview 2017). Explaining the pressure men feel to go hunt rhino to provide for their family and uphold the perceived male responsibilities, one widow explained, "what motivated my husband to go hunt rhino was hunger and the need to make money to support our children" (Interview 2019). A young man similarly explained, "if you are married, each day you have to bring something to feed your family and it is harder to get a job that gives you great possibilities to feed them daily" (2013). Another explained:

> There are more men who go there [to Kruger] now. This is motivated by hunger and lack of money. A person who does not provide for their family is going to have problems with their wife. The wife will leave you if you do not provide. A wife does not stick around if there is no food. A wife will even go so far as to say 'what are you doing only trying to procure food here close to home like a chicken does? There are those who go further, out in the bush [Kruger] to get food and provide for their family. Why don't you?

Similarly, Roberto explained, "When women see the friend of their husbands go and get rich, they might encourage their husband to go." (Interview 2019). Emilio simply said, "Yes. [some] wives do pressure their husbands to go to Kruger" (Interview 2019). Reflecting on the

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desire for an additional wife, Matilde explained: “Concerning what motivated my husband to go hunt? He said he wanted money to get another wife” (Interview 2019). This anticipation and experience of material benefit from rhino poaching complements existing research that illustrates women as well as men may not necessarily condemn commercial poaching (Sundström et al., 2019). In short, especially in a context of limited economic opportunities, norms of masculinity—especially those concerning the desire to have and care for family – help drive interest in the rhino horn trade.

5.2 The crisis of widows: Women as victims of rhino the poaching conflict

A feminist political ecology of wildlife crime also works to unpack how women in particular are impacted by the rhino poaching conflict. We turn to Tania’s story as a case in point. Tania’s husband took the risk of going to Kruger to hunt rhino. He was killed in Kruger in 2016 on his third hunting trip. His first was unsuccessful, his second was successful, and on his third trip, rangers shot him. Tania shared that even though her husband had used some of the earnings on drinking and casual relationships with other women, his one successful hunt provided a substantial increase in the household wealth. He bought a car, they improved their modest mud and thatch roofed house, and he was able to furnish the basic necessities for his family like soap, oil and maize flour. He would sometimes give Tania small amounts of money as well. But all of this ended with his death. Tania, who is approximately 20 years old, is now left with three children and tends her meagre fields to feed her family. Her story is an unfortunate and tragic one that has repeated itself hundreds of times in the Mozambican borderlands, bringing to life the impacts of rhino poaching and a lethal response on women and their households.

It is the killing of suspected poachers by conservation officials that victimizes women. However, to more fully understand the gravity of the loss of their husbands for their widows, it is important to recognize how this loss intersects with local gendered relations and household dynamics. Gendered dynamics in Massingir and the broader borderlands of Southern Mozambique include relatively clear and separated gender roles. Women are in charge of child raising, domestic labour, and are largely responsible for basic household subsistence, including the tending of fields and preparing and preserving of food, largely maize. Men are typically the main income earners, support farming through clearing fields, build granaries and so forth, and are in charge of cattle. One result of this gendered separation of labour and related expectations is that women tend to have fewer years of education than

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their male counterparts. Especially in villages, women often get married as teenagers, stopping school to fulfil domestic responsibilities. Teachers and women in the area confirm that once married, women's education usually ceases. As one teacher explained,

> Girls are those that have the most problems in terms of going to school […] they have problems because at ages 14, 15, 16 they are married or engaged. The husband is also a young guy of 15, 16, 17, 18, 19 years old and they don't accept that their wife goes to school. These are aspects of the culture that we just have to respect (Interview 2018).

Approximately 40% of all women in Mozambique are illiterate[2], and this worsens in rural areas. While potentially outdated, the most recent statistics from 2005 indicate a female illiteracy rate of 80% in Massingir.[3]

Marriage at often a young age, a dependence on continuing subsistence agriculture to feed their families and low levels of education and literacy combined with difficult prospects of attaining wage labour employment has created a situation in which women like Tania who lose their husbands are found in a position of extreme vulnerability. They are often even more vulnerable than before their husband entered the poaching economy, even if successful hunts provided short-term income booms. It is worth detailing the words of some of the women we spoke with and how they express this sentiment. Ana lamented, "Sure the money [from poaching] helped. But it's not good as it's not worth having it today and then having nothing tomorrow. It's better to continue living poor and with your life" (Interview 2019). Expressing a similar sentiment about the momentary benefit of rhino money versus longer term suffering, Carla explained "The money from poaching only helps families for a little while because after the man dies the family is left to suffer" (Interview 2019). Maria detailed how she would fight with her husband not to go because it was too dangerous: "He would say 'I would never make this much money even if I work for 10 years!' But this money didn't bring us benefits because today he is not here, and life is difficult for us." The benefits from poaching, she said, "were short-lived and we are worse off now" (Interview 2019). She even

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[2] http://uis.unesco.org/en/country/mz; http://uis.unesco.org/en/country/mz. Last accessed 12/06/2020.

[3] http://www.portaldogoverno.gov.mz/por/content/download/2958/23842/version/1/file/Massingir.pdf.

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had to sell her husband's cattle, akin to emptying a household's bank account and insurance policy, to pay for the return of his body to Mozambique.

Without the support of their husband either in terms of earning an income or helping out with subsistence activities, many husbandless and fatherless households are going hungry. "We now live a difficult life" said Beatriz when talking about her situation and that of some of her neighbours who have also lost their husbands. "We are hungry because we do not succeed in producing enough in our field" (Interview 2019). Many men in the villages also perceive the rhino poaching economy as bringing hardship to families. Even in 2013, one man explained, "I don't approve of this kind of action because instead of getting rich, many people die, and it brings suffering to their family."

A common contributor to women's increased vulnerability is that they are often not able to replace the material, income and labour support of their husband. This links back to lobola and the Shangaan marriage system. If a woman has no children and her husband dies, she can only remarry if another prospective husband pays the original lobola back. If a woman has children, she is not allowed to remarry as she must carry on the name of her husband, unless she goes through a process of purification called *Kuchinga*. Both processes are rare as there are taboos around being a widow. Women also expressed a desire to respect cultural traditions and not remarry. Women thus typically stay in the village of the husband's family as her children must stay within the family's paternal lineage. Many women spoke of the emotional and material trauma of losing their husband and being destined for a life of loneliness. When asked about who takes up the tasks and roles that her husband did after he died, in a group interview, one woman explained "We don't have anyone, we do it all ourselves. Or I make traditional alcoholic beverages to sell or try to make bread and sell to pay for someone to do the work needed" (Interview 2019). Speaking of the inability to remarry, Iris said "Now I don't have anyone to help me, and my children are still very young (Interview 2019)." Francesca simply said, "My life is full of suffering because I have nobody to take care of me (Interview 2019)." The inability to remarry and the norms of remaining with the husband's family is especially difficult for young, recently married women. Denise elaborated:

> It is difficult to be widowed at a young age. We live in constant stress because we have children who are still young and we have no way of guaranteeing them what they need for school, and nowadays kids need to go to school […] Poverty will increase.

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While not being able to remarry, a widowed woman may be taken in or taken ‘care’ of by one of the husband’s male relatives, often an uncle or brother. Women reproached the idea that this is a source of support: “These men that are meant to take care of us don’t help us with anything. None of them help us in the fields to feed our children” (Interview 2019). Another woman explained how she has no brother in-law, and that her in-laws are very old and unable to provide for her and her children given the existing difficulty of subsistence farming. They thus encouraged her to move back to her parents’ village and remarry. She refused, wanting to stay in her current village. She said she was not convinced any new husband would take care of her children from another man. She was instead trying to find work to earn an income to support her and her children (Interview 2019).

The combination of wealth earned from rhino poaching and a lethal militarised response further contribute to the number of women impacted. As men’s status and masculinity increases with the number of wives and children they have, marrying another wife is one of the first things many men do with money earned from rhino poaching. As Leonardo explains: “When someone comes into money, he wants to increase his number of wives. I know a guy who only had one wife, but after getting some money [from poaching] he has 3 or 4 wives” (Interview 2018). It also enables a young man to lobola and marry younger than has been the norm historically. Sadly, the dynamic of a young man marrying one or more young, even teenage, wives using the wealth he acquired from rhino poaching, and then dying and leaving them behind with children and little to no support network, is increasingly common.

The fact that the money earned from rhino poaching enables a man to lobola a new wife additionally signifies a cultural shift emerging from the rhino poaching economy underscoring that the poaching economy is changing gendered practices. Today lobola is increasingly comprised of gifts such as alcohol, consumer goods and, most importantly, cash alongside cattle, and this cash is increasingly earned by poaching. Tania’s family, for example, received a lobola that consisted of four head of cattle, vast amounts of beer and wine, fabrics and 15,000 meticais (USD 300). Another participant similarly explained the trend of poachers using cash for lobola:

> Poachers use cattle too as they have them, but they use more money, as money for them is not a problem. If they want to convert cows in terms of money, they count money which is equivalent to buying that certain number of cattle…. There is controversy that

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> you can pay "lobola" using both methods, but those with a lot of money just use money (Interview 2018).

While facilitating the ability to lobola a wife, the broader significance of this cultural shift in using cash for lobola is yet to be fully understood.

While highlighting how these gendered norms and systems both shape and are shaped by the rhino horn economy, it is important not to blame them for men's deaths or women's suffering. At the most straightforward level, it is militarized conservation practice that kills young men, not the gendered norms. In addition, in an income-strapped area with few to no job prospects beyond rhino hunting, the money and large lobola is sign of wealth, status, and importantly material and economic security that proves attractive to many men, women and their families. In Massingir there is thus a combination of men with the resources to increase their social standing through the acquisition of more wives and children, and an increasing number of young women and their families who are well-aware of this and looking to embrace the opportunity that marriage might provide for their daughters. Lobola has indeed always played and continues to play an important role in strengthening familial and community resilience (Furquim, 2018). The poaching economy taps into this traditional system of courtship, marriage and gendered relations that provide real, material opportunities and security for men, women, and households, even if this is short lived.

5.3 Scaling impacts from women to communities

Men have always died in the villages of the borderlands, including in the mines. Widows have always existed. But the rhino poaching conflict, and the escalating violence of anti-poaching responses brings about two stark differences that have far reaching consequences for women, households, and for the future of villages in the borderlands. First, it is primarily *young* men who are being killed in Kruger and adjacent protected areas. This was made forcefully clear during interviews such as with Denise who explained that "before [rhino poaching], men would die much older, but recently men die much younger. You understand this new dynamic?" (Interview 2019). Second, the poaching conflict, and specifically the lethal response to poaching, has dramatically increased the rate at which men are dying in the area. Testament to this is that villages and communities have expanded their burial grounds, resorting to make-shift burial grounds because the usual cemeteries are full. One widow,

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Mariana, framed the current conjuncture as one in which the deaths of young men are now "normalised" (Interview 2019).

[Photo 1. New burial grounds along roads to villages outside of Massingir Town. Credit: Massé 2019.]

Through these two dynamics and their interactions with broader gendered norms, the loss of men as a result of the militarized response to rhino poaching is producing new vulnerabilities for women, but also for households and broader communities. It is here where a feminist political ecology analysis provides a sobering portrait of how the rhino poacher, or any other poacher or resources user, is not an isolated individual. They are integrated into a family, a community, and a broader network consisting of gendered relations and socio-economic systems of dependency, resiliency, and vulnerability. Eliminating a rhino poacher, especially at the scale that has happened in the Mozambican borderlands, sends ripples throughout their communities and households that persist and impact the futures of women, households, and communities.

Speaking to the longer-term implications of the poaching conflict beyond individual women and households, one woman explained:

> Our biggest concern is not the reason for young men's deaths, but, given the importance of young men here, not knowing what a community without young men will be like, what type of culture will this community have. And after that, what about the widows, what will they do to overcome the challenges, and how can we move forward developing our communities with few young men?

One man similarly spoke of the death of men in Kruger and the problems it is causing in his village, Massingir Velho:

> I can say there was a problem in the sense that some young guys involved themselves in that type of hunting activity, and sadly they were killed. They left behind their young children and their young wives, and as a result these people are subject to increased suffering because they don't have anyone to support them. So we can say that rhino

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poaching during this time period, in this community, has brought losses (Interview 2018).

A community leader told us how the challenge of developing the villages with the passing of so many young men is a familiar conversation at their funerals (Interview 2017). Mariana, a young widow simply explained how the future of the village with no more young men is a sad village (Interview 2019). The death of so many men, and especially young men shakes the foundation of communities in ways that de-stabilize existing socio-cultural systems. Today, imagines of young women grinding maize as they sit beside their hungry children, empty cement houses and broken-down trucks – the signs of the bygone money earned from rhino poaching – is a poignant testament to this reality.

6. Feminist political ecology of wildlife crime

We end with what a feminist political ecology of wildlife crime, as a broad framework, might contribute to understanding illicit environmental economies, enforcement efforts, and their consequences. A combined focus on women, gender, and a re-scaling of analysis to the invidual and household (Elmhirst, 2011; Rocheleau, Thomas-Slayter, and Wangari, 1996) helps understand the uneven gendered and temporal accumulation of benefits and harms as they relate to rhino poaching and how it is being responded to. Some men have become incredibly wealthy in a short amount of time. But, this wealth is not necessarily distributed throughout the 'community' nor do women and their households necessarily benefit in a sustainable way (Lunstrum and Givá, 2020). Even if men use the wealth to support their household, poaching wealth is ephemeral; the benefits are often short-lived, ending with the husband's arrest or death. This leaves women and their households even more vulnerable than they previously were. We find this particularly important given the vast amounts of wealth that are being accumulated with the poaching economy and reports that it is enriching 'communities' in the Mozambique-South Africa borderlands.[4] As Witter and Satterfield (2018, 280) argue with regards to simple representations of rhino poaching's benefits: "mediated portrayals of wealth do not take seriously enough questions about wealth maintenance and distribution, and they obscure the extent to which sudden wealth is deeply

[4] https://www.iol.co.za/news/the-town-that-thrives-on-rhino-horn-1505125;
https://www.ft.com/content/f71d53ea-67b3-11e5-97d0-1456a776a4f5;
https://oxpeckers.org/2017/03/mozambiques-poaching-castles-crumbling/

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entangled in poverty and marginalization." The ability of a feminist political ecology of wildlife crime to highlight how benefits and harms accumulate among men and women adds nuance to ideas about quick and fleeting rhino wealth being a sustainable source of community upliftment. It also sheds light on the troubling long-term consequences of the militarized, lethal response for women, households and even communities.

Here, a feminist political ecology of wildlife crime reinforces the now well-established concerns with violent and securitized approaches to poaching and conservation.[5] Specifically, it demonstrates that these approaches can have unintended and (in)direct negative consequences for women and their households in the immediate and into the future. The hardships created by these consequences could form a source of grievance against conservation that could further propel people into the poaching economy (Hubschle, 2017; Witter, 2021). Our analysis supports arguments that if men have alternative sources of earning an income to provide for their family, increase their sense of self-worth, and interrupt the cycle of hopelessness, they may be less likely to risk their life poaching, thereby lessening interest in the rhino horn economy and resulting in better conservation and socio-economic outcomes.

While we scaled the focus of analysis to the level of the individual and household in a remote area of Southern Mozambique, the women we spoke to also demonstrated a keen understanding of how their household and communities are integrated into global economic and illicit commodity flows, and the uneven dynamics of wealth that shape these. When we asked women if they had any message they would like to give to the government, many said authorities should move to close the market and end demand for rhino horn. Matilde (Interview 2018), for example, said "Today I am a father and a mother. I hope they put an end to this poaching by closing the market." "To put an end to the poaching related deaths," said another widow, Mariana, "they need to close the demand market because even with rangers patrolling it is not having any results. And when a person succeeds in getting a horn, they come back here and know they can sell it." She believes that if authorities "close the demand for rhino horn, then no one will go hunt rhino anymore" (Interview 2019).What these women who have the most intimate of relations with the rhino poaching economy are saying is that the solution to commercial (rhino) poaching lies not in the intensification of conservation

[5] See Duffy et al. 2019 for a synthesis of these critiques

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security or militarized enforcement efforts in and around protected areas, but in addressing the root drivers: livelihoods and demand.

Such lucid insights further compel the need to consider how local gender relations and socio-economic dynamics articulate with realities of conservation, global (illicit) commodity flows and the uneven dynamics of wealth that shape these. This will deepen understanding of the intersections between illicit wildlife economies, responses to them, and the lived realities and development trajectories of men and women in particular areas. A feminist political ecology of wildlife crime provides a broad framework to further pursue this line of analysis.

A feminist political ecology of wildlife crime framework brings us into needed directions in future research. Drawing on women's insights above, one avenue of research is how women can be involved in designing and theorizing solutions to poaching conflicts. A second is how the growth or decline in illegal wildlife economies might restructure local and regional patterns of gendered labour relations and vice versa. An additional area of needed further research is how militarization itself is a deeply masculine enterprise (Enloe 2000). Delving into these gendered aspects of militarized conservation can help understand how the other side of the poaching conflict – green militarization and securitization – as opposed to the ground-level supply side, is also deeply gendered, but in ways that affect different actors within the militarised conservation hierarchy differently (Chisholm & Tidy, 2017; Henry, 2017). Indeed, it is not just local 'African' or 'foreign' practices that are shaped by gender norms, but also thoroughly Western practices and supported interventions as well.

8. Conclusion

The commercial rhino poaching economy is an illicit resource economy in the Mozambique-South Africa borderlands that is representative of a burgeoning interest on poaching and wildlife crime more broadly. In this article we have developed a feminist political ecology of wildlife crime to scale analysis of wildlife crime to the level of the individual and household and examine its gendered dynamics. In mobilising this framework, we came to understand how participation in the rhino poaching economy and lethal, militarised responses by the state intersect with local gendered norms, relations, and political economies and with what impacts now and into the future.

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We highlighted two stark gendered dynamics in the rhino poaching economy. First, the system of gender roles and norms in southern Mozambique creates expectations that men will grow and provide for their families by earning an income. For generations, this has been embodied in the perilous journey and migrant work in South African mines and plantations. As these opportunities dwindle and as subsistence-based livelihoods become increasingly difficult under conditions of drought and conservation-induced displacement, there is increasing pressure on men to find alternative ways to support their family. Rhino poaching syndicates are able to tap into this reality of local poverty, gendered relations and male hopelessness, offering a risky but lucrative opportunity. Second, women who have been widowed as a result of their husbands being killed while hunting rhino are more vulnerable than they previously were. So too are their children and communities more broadly. These women, children, and community members are the indirect, but far more numerous, human victims of the rhino poaching conflict, and specifically the state's militarised response. This reality is leaving an increasingly devastating scar on the socio-economic landscape and fabric of the Mozambican borderlands. The ways in which a poacher's death occurs and how it is experienced by women and the broader community is not simply tied to dynamics of poverty, inequality, and underdevelopment, although these are all important. Local systems of gendered norms and relations combine with these other processes to intimately shape participation in rhino poaching and the subsequent victimization of women.

As a structural process alongside capitalist underdevelopment and conservation-induced hardships, these gendered relations are thus an important explanatory variable to understanding the dynamics of the rhino poaching conflict and wildlife crime more broadly. They also highlight the longer term and much wider reaching human consequences of high-risk commercial poaching and lethal anti-poaching interventions, especially concerning how the death of so many young men destabilizes socio-economic resiliency. Women's stories and experiences emphasize how addressing the root drivers of commercial poaching is about so much more than saving a species. It is also about human life, death, vulnerability, and investment in forward looking interventions to improve upon the trajectories of each of these, and the sustainability and betterment of human and nonhuman communities more broadly. A feminist political ecology of wildlife crime framework is useful for understanding these dynamics and those related to other illicit natural resource economies, efforts to address them, and the processes of victimization that result.

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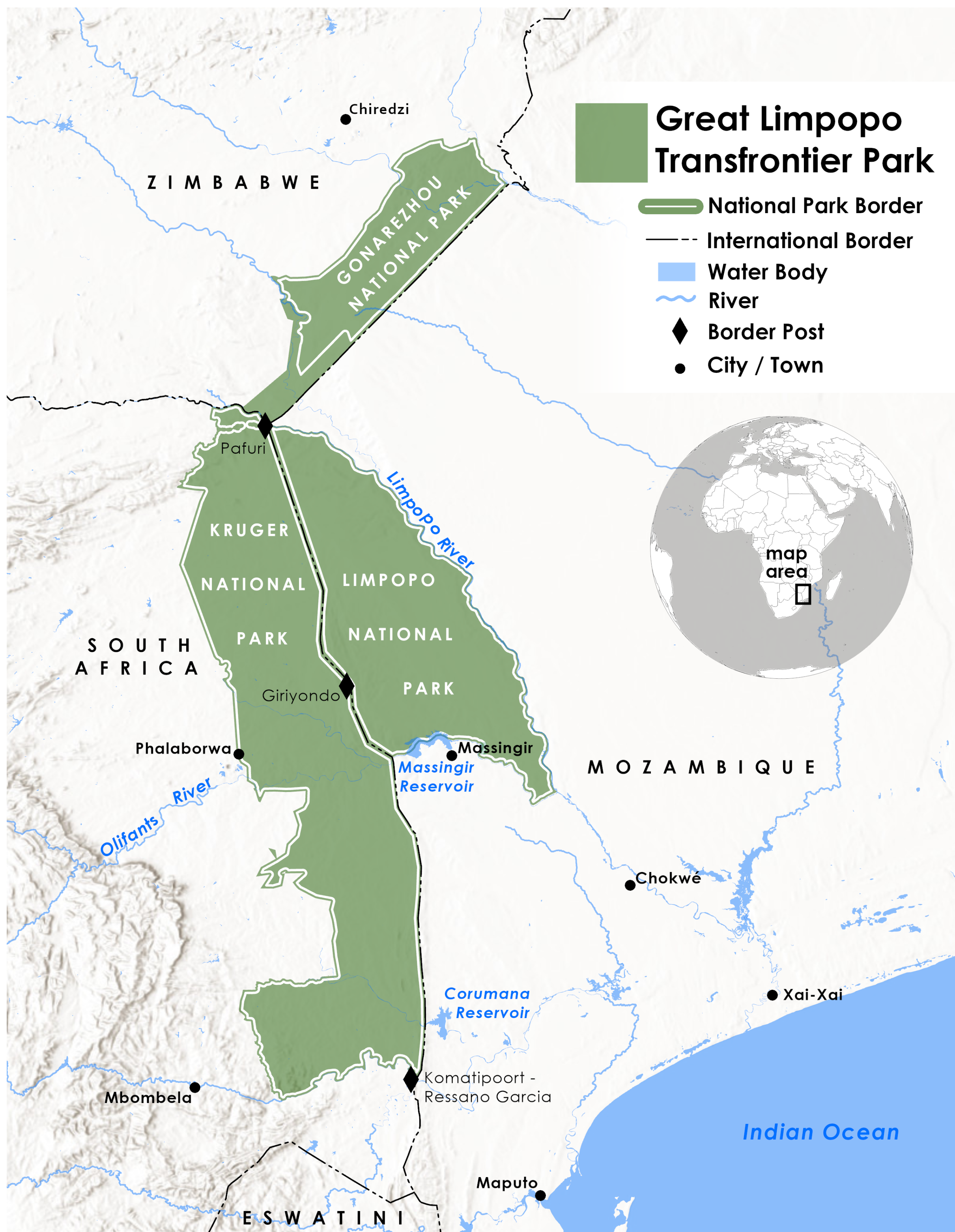

Map 1: Map 1. Great Limpopo Transfrontier Park and location of Massingir. Cartography credit: Benjamin Sweet, Boise State University.

Photo 1. New burial grounds along roads to villages outside of Massingir Town.
Credit: Massé 2019.

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