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# War, by Conservation

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## ABSTRACT

In this paper I argue that there has been a critical shift towards war by conservation in which conservation, security and counter insurgency (COIN) are becoming more closely integrated. In this new phase concerns about global security constitute important underlying drivers, while biodiversity conservation is of secondary importance. This is a significant break from earlier phases of fortress conservation and war for biodiversity. In order to develop a better understanding of these shifts, this paper analyzes the existing conceptual approaches, notably environmental security which seeks to understand how resources cause or shape conflict, and political ecology approaches that focus on the struggles over access to and control over resources. However, this paper indicates the limitations of these existing debates for understanding recent shifts, which require a fresh approach. I chart the rise of the narrative I call poachers-as-terrorists, which relies on the invocation of the idea that ivory is the white gold of Jihad, a phrase which is closely associated with an Elephant Action League (EAL) report in 2012 which claimed Al Shabaab used ivory to fund its operations. This narrative is being extended and deepened by a powerful alliance of states, conservation NGOs, Private Military Companies and international organizations, such that it is shaping policies, especially in areas of US geo-strategic interest in Sub-Saharan Africa. As a result conservation is becoming a core element of a global security project, with significant implications for conceptual debates and for conservation practice on the ground.

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## 1. Introduction

This paper explores a new phase of conservation which combines biodiversity losses with concerns about with global security, such that there has been a shift to what I characterize as *war by conservation*, in both discursive and material terms. Political ecologists have already produced an interesting and substantial analysis of the relationships between conservation, violence and conflict (see for example Peluso, 1993; Peluso and Watts, 2001; Peluso and Vandergeest, 2011; Lunstrum, 2014; Neumann, 2004; Fairhead, 2001; Ybarra, 2012; Pearson, 2012). However, current shifts in conservation mean these important debates need a thorough a re-examination. This is not just a 'back to the barriers' or fortress conservation movement, which implies a retreat behind the fences of heavily defended protected areas. This is an 'offensive position' in certain locations whereby conservation is the intervening aggressor, not simply the defender of wildlife; war by conservation is a proactive, interventionist militarized response that is spatially amorphous and extends well beyond protected areas and into the land and communities surrounding them. While political ecologists have highlighted the ways that conservation

strategies can be violent, this new phase of war by conservation differs because it combines anxieties about global security, with environmental concerns and counter-insurgency (COIN) techniques. One of its main driving objectives is security and stabilization of areas that are of geostrategic interest to the US-led War on Terror. Furthermore, this new phase can be characterized as war by conservation because conservation agencies themselves are becoming engaged in use of force against people they identify as poachers and as members of terrorist networks.

There is an increasing tendency to discursively frame poaching via reference to terrorism; this has been extended and embedded via invocation of the idea that ivory is the *white gold of jihad*, a phrase which is closely associated with a 2012 report from Elephant Action League (EAL) (Kalron and Crosta, 2012; White, 2014). The narrative of what I call *poachers-as-terrorists* renders the complexity of poaching invisible; further it has the effect of displacing alternative, longer standing approaches to poaching which seek to understand the very different reasons why different people engage in illegal hunting in a range of locations. It also distracts attention from the well documented ways that states, political patronage networks, standing armies and private companies engage in or collude with poaching (see Duffy and Humphreys, 2014; Ellis, 1994; Reeve and Ellis, 1995). The narrative of poachers-as-terrorists resonates with wider conceptual approaches of environmental security which

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aim to understand how groups engaged in violent conflict utilize natural resources to fund and support their operations (for example see [Le Billon, 2008](#); [Berdal and Malone, 2000](#)).

However, in this paper I argue that framings of poachers-as-terrorists and casting ivory as white gold of jihad are simplistic and poorly evidenced; yet, they have gained traction because they intersect with pre-existing concerns about global security, specifically anxieties about the expansion of 'terrorist networks' post 9/11. Further, this discursive production of poachers-as-terrorists has material effects, especially in areas that are of geo-strategic interest for the US-led War on Terror. The material outcome is that it has become more possible to consider greater use of force, including COIN, for any perceived or actual threat to certain iconic species (notably elephants). As such, war by conservation also represents a conceptual shift in current thinking in political ecology and environmental security about the links between natural resources and conflict. While this paper focuses specifically on the debates around the potential link between ivory poaching and Al Shabaab in East Africa, the rapidly shifting dynamics in the conservation sector have parallels elsewhere (see Ybarra, this issue; Lombard, this issue).

These shifts deserve greater critical analysis. First, I examine the relevant debates from environmental security and political ecology; second, I sketch out the recent redefinition of poachers as terrorists; and finally I offer an analysis of how this is shifting practice towards war by conservation. The purpose is to explore the theoretical and evidential bases of the ways narratives around poaching are being reconfigured to combine with, deepen and extend global security concerns. This paper also demonstrates how those narratives have material effects and are producing a new phase of *war by conservation*.

## 2. Shifting from war for biodiversity to war by conservation

I argue that we are witnessing a shift to a new phase of *war by conservation*, but first it is important to note that this builds on earlier approaches to conservation, notably fortress conservation and war for biodiversity. War by conservation represents a continuity of some aspects of previous conservation practice, since there has been a long and well documented history of the use of force against people to protect wildlife and militarization of protected areas, especially in sub-Saharan Africa (see [Neumann, 2004](#); [West et al., 2006](#); [Smith and Rotshuizen, 2013](#); [Ellis, 1994](#); [Reeve and Ellis, 1995](#)). In order to understand how this current phase differs, it is useful to provide a brief explanation of these earlier approaches.

There is already a substantial analysis of the significance of the fortress approach to conservation ([Brockington, 2002](#); [Brockington et al., 2008: 17–86](#); [West et al., 2006](#); [Peluso, 1993](#)) and the ideas and practices of war for biodiversity ([Neumann, 2004](#); [Duffy and Humphreys, 2014](#); [Peluso, 1993](#)). Fortress conservation denotes a model of protected areas, produced via removal, eviction or displacement of local communities to provide separate territories for wildlife; it is closely associated with the historical extension of the model of national parks provided by Yellowstone National Park in the USA (see [Brockington, 2002](#); [Brockington et al., 2008: 17–86](#); [Adams, 2004](#)). War for biodiversity denotes the sense that wildlife is under threat and therefore conservation agencies need to engage in more forceful approaches to protect wildlife, to such that it was commonly referred to as a *war* to save them ([Duffy and Humphreys, 2014](#)). This was accompanied by greater degrees of militarization of protected areas, especially across Sub-Saharan Africa ([Smith and Rotshuizen, 2013](#); [Reeve and Ellis, 1995](#)). War by conservation represents a break with this earlier phase because it is characterized by a much fuller integration of conservation objectives with global security concerns, specifically the US-led

War on Terror and COIN, such that conservation is relegated to a position of secondary importance. Furthermore, conservation agencies are increasingly engaged in using force to tackle those identified as poachers and as members of terrorist networks. As such conservation and security concerns are combining in new ways.

This shift has been facilitated by a series of factors. One of these is the rises in poaching wildlife, especially of elephants and rhinos in Sub-Saharan Africa (see [Duffy et al., 2015a,b](#)). Data from the Monitoring Illegal Killing of Elephants (MIKE)<sup>1</sup> database indicates that rates of illegal killing of elephants across Africa rose from 0.6–2.1% of the total population in 2005, to 3.5–11.7% in 2011 ([CITES, 2012: 5](#); also see [Wittemyer et al., 2014](#)). An estimated 15,000 elephants were killed in 42 MIKE monitored sites in 2012 ([Nellemann et al., 2014: 32](#)). Rates of rhino poaching have also increased substantially since 2008, with the majority of rhinos poached in Zimbabwe and South Africa; in 2007 approximately 50 rhinos were poached in South Africa alone, yet in 2013 over 1000 were illegally killed ([Nellemann et al., 2014: 37](#); also see [Standley and Emslie, 2013: 6](#); [Milliken et al., 2009: 4](#); [Ayling, 2013](#)).

The drivers behind such rises in poaching and trafficking are complex and wide ranging, but a key factor has been the rise in wealth in existing consumer states (such as China in the case of ivory) and a mix of rising wealth and shifting cultural norms in new markets (as in the case of rhino horn consumption in Vietnam) (see [TRAFFIC, 2008](#); [Milliken and Shaw, 2012](#); [Challender and MacMillan, 2014](#); [Duffy et al., 2015b](#)). The figures do indicate a genuine rise in poaching of rhinos and elephants, rather than simply an increase in detection rates. The rises have led to calls from Governments and conservation NGOs for a more aggressive approach to anti-poaching by state conservation agencies, private sector wildlife managers and conservation NGOs alike; this is especially the case in areas of Sub-Saharan Africa where concerns about security (notably concerns about Al-Shabaab activity) coincide with rises in organized forms of poaching. The development of this dynamic has allowed conservation and security to combine in ways that require a fresh examination of existing conceptual approaches. The link between conservation and conflict is an increasingly important area for global policy. For example, Achim Steiner, UN Under-Secretary General and Executive Director of UNEP recently stated in a joint UNEP and INTERPOL report that 'even the security and safety of countries and communities is affected. . . wildlife and forest crime, including charcoal, provides potentially significant threat finance to militias and terrorist groups. Already recognized as a grave issue in DRC and Somalia by the UN Security Council, the assessment reveals that the scale and role of wildlife and forest crime in threat finance calls for much wider policy attention.' (opening statement in [Nellemann et al. \(2014: 4\)](#))

Environmental security analysts investigate the link between natural resources and violent conflict. The approach is closely identified with the works of the Toronto Group and Thomas Homer-Dixon ([Homer-Dixon, 1999, 1994, 1991](#)). [Homer-Dixon \(1994\)](#) argues decreasing supplies of controllable resources, such as clean water and good agricultural land will provoke interstate 'simple scarcity' conflicts or resource wars; that large population movements caused by environmental stress will induce group identity conflicts and especially ethnic clashes; and that severe environmental scarcity will increase economic deprivation and disrupt key social institutions which would cause deprivation conflicts such as civil strife and insurgency (also see [Homer-Dixon, 1991, 1999](#); [Theisen et al., 2013](#); [Collier and Hoeffler, 2005](#)).

<sup>1</sup> MIKE Database <http://www.cites.org/eng/prog/mike/index.php>. (accessed 13.09.14).

However, the methods and approach used by the Toronto Group have been criticized by Gleditsch and others for their reliance on large *N*-study databases, lack of engagement with specific case studies and over reliance on country-year and inter-state conflict data (Gleditsch, 2012, 1998; Buhaug, 2010; Butler and Gates, 2012; Peluso and Watts, 2001). It is important to note that environmental security encompasses a much wider range of arguments than those posed by Homer-Dixon and include notions of a conflict trap (Collier et al., 2003; Bannon and Collier, 2003; Collier et al., 2008; Kaplan, 1994). They draw on a longer tradition of Malthusian understandings of environment–society interactions, which views violence as an outcome of natural resource scarcity, thereby acting as a ‘natural check’ on population growth. Ideas of the environment as a source of conflict, or as a security threat also resonated with the redefinition of conflict in the post-Cold War era as ‘New Wars’ (Kaldor, 2012; Berdal, 2003); the emergence of non-traditional security threats such as global environmental change (Selby, 2014); as well as arguments that greed and grievance were motivators for conflict (Berdal and Malone, 2000; Nellemann et al., 2014: 48–49).

Environmental security has been criticized for the ways it links environmental change and violent conflict, not least by political ecologists (Selby, 2014; Selby and Hoffman, 2014; Hartmann, 2014; Fairhead et al., 2012; Benjaminsen et al., 2012). The environmental security debate does not adequately explain war by conservation either. It can be useful for thinking through how resources and conflict might be linked for example, how wildlife products might be used to fund militias. However, in this paper I question exactly these sorts of claims and offer an explanation for why and how such arguments can rise to international prominence under certain circumstances. First though, it is useful to investigate the points raised by political ecologists who have provided important examinations of the linkages between violence and conservation. As stated earlier, Neumann notes that war is a common model for biodiversity protection in Africa, where protected areas become spaces of violence in which human rights abuses and use of deadly violence against humans in defence of wildlife have become normalized (Neumann, 2004: 813; Peluso and Vandergeest, 2011; White, 2014; Bocarejo and Ojeda, this issue). For Neumann this is explained via a deep seated fear of the poor and their claims on resources, tapping into the Malthusian interpretations of environmental security which encourage conservation agencies to view poor people as combatants (Neumann, 2004: 816–822).

Le Billon (2012) questions the idea of resource wars and seeks to understand the links between resources and conflict. He focuses on oil, gems and timber and argues resources make wars more likely, and that they have an influence on the severity and duration of conflict. Le Billon’s contention is that economic dependence on some resources can increase vulnerability to armed conflict, that the social relations of production around resources matter, and that opportunity to extract or the ‘lootability’ of the resource is also important (also see Le Billon, 2001, 2005; Dressler and Guieb, 2015). Furthermore it is important to note the ways that resources can be used by states to extend and maintain control. In their review of the political ecologies of war and forests, Peluso and Vandergeest strongly argue that from the 1950s to the 1970s nature was remade in relation to nation-states, particularly via counter insurgency operations; the purpose of the drawing in forests as sites of counter-insurgency activity and nation-building was to extend and deepen state power at a time when the reach of centrally focused states was limited (Peluso and Vandergeest, 2011: 587; also see Dunn, 2009). Such initiatives can also neatly intersect with state objectives to quell, control or displace ‘unruly’ populations, or groups operating across international borders via counter insurgency operations, in which biodiversity conservation can play a central and legitimating role, thus deepening and extending state power (Ybarra, 2012: 497–498; also see Peluso,

1993; Neumann, 1998; Le Billon, 2001, 2008; Bocarejo and Ojeda, this issue). Appeals to protect and save natural or national heritage are frequently overlain with the argument that states have a moral obligation to protect key wildlife populations, and such appeals can be traced to the colonial period (especially in the British Empire, see MacKenzie, 1988). This current phase differs – it relies on the idea that securing natural heritage will simultaneously achieve national security objectives, and more critically, address global security concerns, notably the US-led War on Terror. In arguments about war by conservation, that nature (wildlife) is remade to extend and deepen the powers of states engaged in the War on Terror in areas where they currently have limited reach. The debates from within political ecology are useful for understanding how states use environmental initiatives to gain greater levels of control over specific territories and populations. However, it does not explain the mechanisms by which this is made possible, and in this paper I cast light on how this shift can occur.

I aim to develop a better understanding of how new approaches differ from fortress conservation because war by conservation integrates concerns about biodiversity losses with a global security agenda and wider justifications of the use of COIN techniques. The ways that a range of organizations present the links between poaching, conflict and terrorism reflect and extend the arguments from environmental security and political ecology, that lucrative and lootable natural resources might fuel conflicts. However, I suggest that this argument is not borne out by the evidence which is presented to support the position that ivory poaching funds terrorism. What is interesting is that the argument is readily accepted precisely because it matches and extends pre-existing concerns about global security; further, the claims are deployed to provide a rationale for a more interventionist approach and as a justification for the extension of a range of surveillance and COIN techniques more commonly associated with the War on Terror.

### 3. The discursive production of poachers-as-terrorists

In this section I chart the rise of a narrative that I have termed *poachers-as-terrorists*. Here it is useful to examine in detail how poachers are being redefined not just as a national or regional security threats but as a critical global security threat, providing a legitimating base for arguments in support of war by conservation. This is not to suggest that all forms of poaching in a diverse range of locations is being discursively linked to terrorism, it is not; here I argue that the linkage of poaching with terrorism and organized crime is becoming one of the primary lenses through which concerns about poaching and biodiversity losses are being articulated by an alliance of powerful actors that encompasses states, militaries, conservation NGOs and private military companies. The claims have been amplified and extended by various news media. However, these debates do not reflect the complex range of different kinds of poachers, including key differences between commercial and subsistence poachers (for more discussion see Duffy and Humphreys (2014) and Duffy et al. (2015a)). Nor do they reflect the historical production of poaching as a crime by the criminalization of African hunting methods by successive colonial administrations (MacKenzie, 1988; Neumann, 2004). Finally, the invocation of global security threats via reference to poachers-as-terrorists also distracts from and obscures the well documented involvement of states and armies in large scale poaching for ivory and rhino horn; one of the best documented cases is the involvement of the South African Defence Force in poaching in Southern Africa in the 1980s, which traded in ivory, rhino horn, hardwoods and drugs to fund its campaigns in South West Africa (now Namibia), Angola and Mozambique (Reeve and Ellis, 1995; Ellis, 1994; Kumleben, 1996; Wyatt, 2013).

There has been a growing concern about the relationships between poaching, wildlife trafficking and regional or global security. Such concerns resonate with debates from environmental security (Homer-Dixon, 1999; Gleditsch, 2012, 1998; Buhaug, 2010; Butler and Gates, 2012; Collier et al., 2003; Bannon and Collier, 2003). For example, the International Consortium for Combating Wildlife Crime (ICWC) was established in 2010 in recognition of the need to tackle the growing influence on transnational organized crime in trafficking of endangered species. It was an initiative of Interpol, CITES, the World Bank, The World Customs Union and the UN Office on Drugs and Crime, and the purpose was to provide co-ordinated support to national wildlife law enforcement agencies, as well as regional networks; so for example ICWC provided specialized training for national agencies in 2013.<sup>2</sup> Major donors are also taking this issue seriously and funding has been made available for anti-poaching and anti-trafficking initiatives in areas of geo-strategic interest (see Lawson and Vines, 2014). Furthermore, linking poaching to global terrorism has shaped arguments about appropriate responses. The coding of poachers-as-terrorists creates the context in which conservation NGOs, states and the private sector can call for more forceful approaches. Indeed this theme was evident at the conference 'International Wildlife Trafficking: Solutions to a Global Crisis' held by United for Wildlife at Zoological Society of London (ZSL) in February 2013 in advance of the high level London Conference on combatting trafficking (also February 2013); Will Travers of Born Free Foundation publicly stated that conservation NGOs needed to talk the language of global poverty and global security to remain relevant.<sup>3</sup> This is indicative of the ways that NGOs increasingly operate in a context in which they must compete for public attention and sources of funding (for further discussion see Cooley and Ron (2002)).

Below I set out the range of organizations that invoke global security as a rationale for conservation, by drawing a link between poaching and terrorism. I analyze public statements from key actors from four groups involved in high profile debates about the links between poaching and global security: conservation NGOs, expert witness testimonial to the US Congress, national governments and international organizations. Many more organizations are also promoting this particular argument, but for reasons of space it is impossible to review them all, so here I focus on the most influential ones in order to trace how the discursive production of poachers-as-terrorists has developed.

In this paper I demonstrate how a poorly evidenced claim provided by an Elephant Action League (EAL) Report in 2012 has risen to global prominence. It is rare that we are able to trace the inception, evolution and extension of a narrative, but it is possible in this case. A key issue is not whether we can establish beyond any doubt that ivory is used to fund Al Shabaab or that poaching contributes to global instability; what is important is that a very wide range of organizations are all telling a remarkably similar story in very similar ways. Here I want to chart the rise of the 'poacher-as-terrorist' framing and the EAL reference to ivory as the *white gold of jihad* (I have sketched out a broad timeline in Appendix A). The claim has been taken up and extended for two reasons: first because it taps into a pre-existing and deep-seated fear about the expansion of terrorism networks post 9/11; and second because it might offer the possibility of a new and lucrative stream of funding for conservation NGOs.

First, it is useful to analyze the evidence base for claims that ivory poaching is linked to terrorism. The EAL report was based on undercover research in Somalia where EAL researchers were able to interview one individual who claimed that there were some traders on the coast who occasionally traded ivory and the ivory sometimes came from Al Shabaab operatives. The video and audio evidence remain confidential due to fears about reprisals against informants. However, the evidence was shown in confidence to a number of security agencies around the world.<sup>4</sup> The report on the investigation was placed on the EAL website in 2012 but was only reported by the international media after the attacks on Nairobi's Westgate Mall 21–24 September 2013. Since then, the argument that Al Shabaab uses ivory to finance its operations has proliferated. It is possible that the reliance on a single EAL report partly accounts for the remarkable similarity of the statements on ivory, terrorism and Al Shabaab. The claim has been repeated by several organizations with either no reference to any supporting evidence or via reference to very limited supporting documentation; however, the claims have been repeated in several published papers by think tanks, academics and international organizations. In turn those published documents are increasingly cited as supporting evidence, even though they only repeat the original poorly evidenced statements; these include media reports in national newspapers such as the UK's *Independent*,<sup>5</sup> and a recent report by the UK's Chatham House (Lawson and Vines, 2014). They all cite the same EAL investigation and news media reports as the core, or only, supporting evidence. Yet, a recent report from UNEP and INTERPOL on environmental crime questions the accuracy of the links between ivory and Al Shabaab. The report points out that ivory may be a major source of income for militia groups (especially Janjaweed) in DRC and Central African Republic; however, it notes that claims Al Shabaab was trafficking 30.6 tonnes of ivory per annum (representing 3600 elephants per year) through southern Somalia are 'highly unreliable' and that the main sources of income for Al Shabaab remain charcoal trading and ex-pat finance (Nellemann et al., 2014: 78–81; also see Menkaeus cited in Williams, 2014: 909; Mcguire/RUSI, 2015).

It can be argued that the current concerns around the links between ivory poaching and Al Shabaab reflect a more established and historical fear of Somalia as a source of instability and criminal activity in the region. During the 1980s the KWS blamed Somali *shifita* (bandits) for crossing the border to wipe out the elephant population (Leakey, 2001: 102). Furthermore, Williams (2014) argues that following major offensives in Somalia, Al Shabaab is becoming a less powerful and significant force which means that the Federal Government of Somalia and the African Union Mission in Somalia (AMISOM) have turned their attention towards stabilization rather than concentrating on offensives against the group.

Nevertheless, claims that there is a link between ivory and terrorism are becoming central to the legitimating arguments of policy networks, especially in US and UK Government circles. For example, in 2012 the US Senate and US House of Representatives held a special congressional hearing on the 'The Global Poaching Crisis'. Reviewing the evidence reveals that concerns were raised in 2012 that wildlife products might be used to fund terrorism. It concluded that 'Evidence is mounting that Al-Shabaab, an al-Qaeda affiliate, and the Lord's Resistance Army are using these illegal animal products to fund their brutal campaigns of violence

<sup>2</sup> See <http://www.cites.org/eng/prog/icwc.php>; <http://www.interpol.int/Crime-areas/Environmental-crime/International-Consortium-on-Combating-Wildlife-Crime>; also see Sellar, 2014.

<sup>3</sup> United for Wildlife Symposium on international wildlife trafficking, 11–12 February 2014, a full recording is available at <http://www.zsl.org/science/previous-scientific-events/symposium-international-wildlife-trafficking> (accessed 15.08.14); the author was also present at the conference.

<sup>4</sup> Personal communication from conservation professional via email to author (25.02.14); <http://elephantleague.org/project/africas-white-gold-of-jihad-al-shabaab-and-conflict-ivory/>.

<sup>5</sup> The Independent, 04.02.14, *Elephant Campaign: How Africa's 'white gold' funds the al-Shabaab militants* <http://www.independent.co.uk/voices/campaigns/elephant-campaign/elephant-campaign-how-africas-white-gold-funds-the-alshabaab-militants-9102862.html> (accessed 25.06.14).

throughout the region'.<sup>6</sup> At the meeting the founder of the influential US International Conservation Caucus Foundation, David Barron, stated that

'Unless the United States takes strong action to combat the illegal poaching and trade of wildlife, terrorist groups will be increasingly fortified with funding and safe havens in Africa from which to launch attacks against the United States and our global interests.'<sup>7</sup>

The link was reiterated at a meeting of the International Conservation Caucus Foundation (ICCF).<sup>8</sup> At the ICCF meeting expert witnesses carefully stated that ivory *may* fund Al Shabaab operations or that ivory is an ideal commodity for groups like Al Shabaab (as well as LRA and Janjaweed).<sup>9</sup> However ICCF does not offer any supporting evidence, save the statements of expert witnesses and links to a 2012 article in *National Geographic* entitled 'Blood Ivory, Ivory Worship'<sup>10</sup> and a 2012 *New York Times* article by Jeffrey Gettleman<sup>11</sup> entitled 'Elephants Dying in an Epic Frenzy as Ivory Fuels Wars and Profits'.<sup>12</sup> In January 2015 two US Senators (Graham and Feinstein) from ICCF introduced a bill to introduce a Wildlife Trafficking Act in the US which would impose harsher penalties on traffickers; what was significant, for the purposes of this paper, was that the rationale provided was that 'Illegal wildlife trafficking ranks among the top five global crimes, generating an estimated US\$8 billion to US\$10 billion in illicit funds annually. There is also increasing evidence that illegal wildlife trafficking is funding armed insurgencies including Al Shabaab, the Lord's Resistance Army and the Janjaweed, which threaten the stability and security of many countries in Africa.'<sup>13</sup> This characterization of Al Shabaab fits within the wider conceptual debates of environmental security that aim to establish a link between natural resources as a financial underpin for conflicts (Berdal and Malone, 2000; Le Billon, 2008, 2012; UN, 2013). However, in this paper I contest that characterization and instead argue that the discursive link between poaching and terrorism is used to further the interests of the US-led War on Terror and has meant that conservation has been integrated into much wider sets of policy debates and initiatives linked to global security. Indeed, as Eckert and Biersteker (2010) note in their analysis of the use of statistics in policy debates around financing terrorism, under and over counting by NGOs, international institutions and Governments, are a common problem because the debates are driven by particular political imperatives to garner support for specific policy agendas (also see Andreas and Greenhill, 2010).

In order to understand how a poorly evidenced claim has risen to prominence, it is important to delve into the statements made by expert witnesses, all of whom are well known individuals in

<sup>6</sup> [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=447&Itemid=369](http://iccfoundation.us/index.php?option=com_content&view=article&id=447&Itemid=369) (accessed 29.04.13).

<sup>7</sup> [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=447&Itemid=369](http://iccfoundation.us/index.php?option=com_content&view=article&id=447&Itemid=369) (accessed 29.04.13).

<sup>8</sup> ICCF was established in 2006 to support the work of the International Conservation Caucus, the second largest caucus in the US Congress. For more information on the work on ICCF see Corson (2010) and [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=48&Itemid=63](http://iccfoundation.us/index.php?option=com_content&view=article&id=48&Itemid=63) (accessed 01.09.14).

<sup>9</sup> Transcript of expert witness evidence provided at a hearing of ICCF [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=447&Itemid=369](http://iccfoundation.us/index.php?option=com_content&view=article&id=447&Itemid=369) (accessed 13.08.14); and [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=445&Itemid=367](http://iccfoundation.us/index.php?option=com_content&view=article&id=445&Itemid=367) (accessed 13.08.14).

<sup>10</sup> Christy, Brian (2012) 'Blood Ivory, Ivory Worship', *National Geographic* <http://ngm.nationalgeographic.com/2012/10/ivory/christy-text> (accessed 15.08.14).

<sup>11</sup> Gettleman, Jeffrey (2012) 'Elephants Dying in an Epic Frenzy as Ivory Fuels Wars and Profits' *New York Times*, [http://www.nytimes.com/2012/09/04/world/africa/africa-ivory-are-being-slaughtered-in-poaching-frenzy.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2012/09/04/world/africa/africa-ivory-are-being-slaughtered-in-poaching-frenzy.html?pagewanted=all&_r=0).

<sup>12</sup> [http://iccfoundation.us/index.php?option=com\\_content&view=article&id=445&Itemid=367](http://iccfoundation.us/index.php?option=com_content&view=article&id=445&Itemid=367) (accessed 13.08.14).

<sup>13</sup> Senators Graham and Feinstein Introduce Bill to Crack Down on Illegal Wildlife Trafficking, [http://iccfoundation.us/what-we-do/conservation\\_updates/jan-9-2015.html](http://iccfoundation.us/what-we-do/conservation_updates/jan-9-2015.html) (accessed 10.02.15).

the international conservation community. A number of expert witnesses are drawn from the same conservation NGOs that are actively promoting the message that increased poaching and the illegal wildlife trade constitute a significant threat to global stability and, more specifically US national interests. As experts, their opinions can have a significant impact in shaping how we understand poaching and its relevance to wider social, political and economic concerns, or in this case to global security concerns (White, 2014; also see debates on the importance of epistemic communities, notably Haas (1992) and Davis Cross (2012)). It is via such platforms that particular understandings of poaching, and the potential threats it might pose, become widely accepted.

The 2012 hearing on 'The Global Poaching Crisis' heard expert witness testimonials from Ian J. Saunders of the Tsavo Trust, who claimed that rangers were now engaged in low level counter insurgency against rebel groups. He stated that there was a 'credible, increasing security threat from Al Shabaab in East Africa and that this will be fueled from the wider illegal trade in ivory.'<sup>14</sup> This statement also makes it clear that international action is required to save important species that are unable to defend themselves against an aggressor, in this case the poacher-as-terrorist, presented as a legitimate target for war by conservation. Further expert witness testimonial was provided by Michael Fay, Senior Conservationist for Wildlife Conservation Society (which runs the 96 Elephants Campaign) who made similar supporting statements, and made the case that conservation projects in certain African States 'put out brush fires of illegal activity that degrade security in these nations, hurting US interests.'<sup>15</sup>

The 'branding' of ivory as the *white gold of jihad* has also been promoted by high profile commentators writing in widely read and well respected news media. For example, Monica Medina, a former special assistant to the Secretary for Defense in the US Department of Defense wrote an Op Ed piece for the *New York Times* (30.09.14) entitled 'White Gold of Jihad' (see White, 2014); in the article she also refers to a panel in November 2012 sponsored by the World Wide Fund for Nature (WWF) and National Geographic on what the military could do to help, in the run up to Hillary Clinton's announcement of a major State Department initiative to combat illegal wildlife trafficking.<sup>16</sup> Well known film directors have also combined with conservation NGOs to spread the message that ivory funds terrorism; in December 2014, film director Kathryn Bigelow released a short animated film, *The Last Days of Ivory* in conjunction with WildAid, which directly links buying ivory in China to funding conflict and terrorism in the Horn of Africa<sup>17</sup>; the film's campaign slogan is 'End Ivory Funded Terrorism' and is intended to be a fundraising vehicle aimed at English speaking audiences.

The influence of the hearings, expert witness testimonials and NGO campaigns are clearly discernible in recent policy commitments by the US Government. For example, in July 2013, President Barack Obama issued Executive Order 13648 on Combating Wildlife Trafficking. The Executive Order stated 'Wildlife trafficking reduces those benefits while generating billions of dollars in illicit revenues each year, contributing to the illegal economy, fueling instability, and undermining security...., it is in the national interest of the United States to combat wildlife trafficking'.<sup>18</sup>

<sup>14</sup> [http://iccfoundation.us/downloads/Hearing\\_Testimony\\_Saunders.pdf](http://iccfoundation.us/downloads/Hearing_Testimony_Saunders.pdf) (accessed 29.04.14), p. 6.

<sup>15</sup> [http://iccfoundation.us/downloads/Hearing\\_Testimony\\_Fay.pdf](http://iccfoundation.us/downloads/Hearing_Testimony_Fay.pdf) (accessed 29.04.14), p. 4.

<sup>16</sup> Monica Medina, 'White Gold of Jihad', *New York Times* 30.09.14, [http://www.nytimes.com/2013/10/01/opinion/the-white-gold-of-jihad.html?\\_r=0](http://www.nytimes.com/2013/10/01/opinion/the-white-gold-of-jihad.html?_r=0) (accessed 13.08.14).

<sup>17</sup> See <http://www.lastdaysofivory.com/> (accessed 23.03.15).

<sup>18</sup> White House (Obama Administration), "Combating Wildlife Trafficking," Executive Order 13648 of July 1, 2013, Federal Register 78(129), July 5, 2013, pp. 40621–40623. Also see Wyler and Sheikh (2013: 2).

This reveals how a particular approach has been reinforced from several angles. These framings are powerful and have a far reaching effect as they deepen and extend the dynamics of the War on Terror precisely because they intersect so well with the pre-existing agendas of major powers in the global system. Further, it demonstrates how poachers are defined in ways that provide the foundation for calls for a more forceful approach to conservation that can deliver a win–win of primarily contributing to global security, and saving species as a secondary positive outcome.

These themes are reflected in public statements made by one of the world's largest and most prominent conservation NGOs, Conservation International; for example, it recently stated that the organization sees a link between the illegal ivory trade and global terrorism:

'Money from wildlife poaching and trafficking is directly linked to the funding of dangerous rebel organizations and terrorist networks. These include the Janjaweed militia in Darfur, the Lord's Resistance Army in Uganda and Al Shabaab in Somalia – which is now linked to al Qaeda'.<sup>19</sup>

Conservation International promotes the idea that engaging in conservation activity can contribute to US national interests, especially related to economy and security because competition over scarce resources leads to conflict, instability and failed states.<sup>20</sup> This reflects, and repeats the conceptual framing of key aspects of the environmental security approach – that there is a link between resource scarcity, conflict and instability. We can go one step further and argue that it also contributes to the discursive production of poachers-as-terrorists, rendering them legitimate targets of a war by conservation, since they pose a clear and present threat to global stability and forceful action against them is deemed as justifiable. Conservation International has produced a short film, entitled 'Direct Connection' using Harrison Ford (actor), Wes Busch of Northrop Grumman (Director of a global security company) and Rob Walden, Chairman of Walmart Stores (global corporation best known for its department stores), to underline the link between conservation and US national security and economic security. This is an interesting integration of security concerns with a more established neoliberal approach to conservation: the increasing use of celebrities and link up with corporate sponsors is now overlain with a new narrative of urgency around the links between biodiversity losses and global security (see Brockington, 2009; Büscher et al., 2012; Massé and Lunstrum, 2015). Peter Seligmann, CEO and Chairman of Conservation International, recently linked poverty, trafficking and threats to global stability as well. Commenting on the new Clinton Global Initiative support to end wildlife trafficking he stated:

'What we're seeing here is the perfect storm of extinction, poverty and radicalism. We're seeing the deterioration of societies and a massive threat to the stability of not only African nations but the entire world. A crucial step in changing this equation is to ensure that the ivory trade comes to an end'.<sup>21</sup>

However, the supporting evidence cited by Conservation International is rather narrow; it could be argued that the evidence base for links between poaching and terrorism is held by organizations such as Interpol or the CIA, and is therefore confidential, but this is

<sup>19</sup> 'Global Stability' <http://www.conservation.org/what/pages/global-stability.aspx> (accessed 14.08.14).

<sup>20</sup> 'Promoting Economic, National and Global Security' <http://www.conservation.org/projects/Pages/Promoting-Economic-National-and-Global-Security-Direct-connection.aspx> (accessed 14.08.14).

<sup>21</sup> Peter Seligmann, 'One Way to Fight Terrorism: End the Ivory Trade' <http://blog.conservation.org/2013/10/one-way-to-fight-terrorism-end-the-ivory-trade/> (accessed 25.03.14).

not stated. The evidence that Peter Seligmann cited was a blog from Slate.com, which in turn referenced the EAL report that links ivory poaching and Al Shabaab.<sup>22</sup>

Another leading NGO, Wildlife Conservation Society, has launched its '96 Elephants' campaign, which has three central pillars 'Humans and Elephants', 'Terror and Ivory' and 'Heroes and Hope' which links poverty, regional instability, poaching, terrorism and the role of conservationists and rangers as heroes.<sup>23</sup> Under the topic of *Terror and Ivory* the campaign makes a series of statements but does not provide any references to support the claims. It does quote the public statements by Hillary Clinton and by Congressman Ed Royce (co-chair of the International Conservation Caucus of the US Congress). The 96 Elephants campaign refers to ivory as the 'white gold of Jihad'<sup>24</sup> which is a reference to the terminology of the same EAL report cited by Conservation International.

Hillary Clinton and The Clinton Global Initiative have also provided support for increased responses to poaching and trafficking. For example, in 2013 it announced a commitment to raise US \$80 million to combat trafficking and poaching as a security threat in Africa.<sup>25</sup> The funds will be used to tackle poaching and trafficking via three initiatives under the headlines of 'Stop the Killing, Stop the Trafficking and Stop the Demand' during 2013–2016. The partners, or in their own terms, 'Commitment Makers' include Wildlife Conservation Society, African Wildlife Foundation, Conservation International, International Fund for Animal Welfare, and World Wildlife Fund.<sup>26</sup>

The presentation of poachers-as-terrorists is epitomised by the recent United for Wildlife (UFW)<sup>27</sup> #whosideareyouon campaign. It encourages supporters to choose sides between wildlife and the criminals who kill them for money and refers to 'Blood Ivory' as a source of funding for the Lord's Resistance Army.<sup>28</sup> This is a clear attempt to draw connections with the idea of blood diamonds and the assumption that natural resources can be used to fuel conflict and instability (even terrorism). Such a dichotomous presentation eases the discursive (and material) production of poachers as legitimate targets of a war by conservation – making their deaths not only permissible but *necessary* to save threatened wildlife.

International organizations have also contributed to the discursive production of poachers-as-terrorists and therefore added weight to the idea that poaching and global insecurity are inter-linked. John Scanlon, the Secretary-General of CITES has made the link in public statements; in an interview with the Guardian newspaper in 2013 he stated that 'The UN Security Council recently linked the Lord's Resistance Army to ivory smuggling in the Democratic Republic of the Congo, while al-Qaida's al-Shabaab group has been linked to illegal ivory in Somalia'.<sup>29</sup>

<sup>22</sup> Joshua Keating (2014) *Ivory Funds Terrorism?* [http://www.slate.com/blogs/the\\_world/2013/10/02/is\\_the\\_illegal\\_ivory\\_trade\\_funding\\_terrorist\\_groups\\_like\\_al\\_shabaab.html](http://www.slate.com/blogs/the_world/2013/10/02/is_the_illegal_ivory_trade_funding_terrorist_groups_like_al_shabaab.html) (accessed 13.08.14).

<sup>23</sup> Wildlife Conservation Society 96 Elephants campaign, available at <http://96elephants.org/> (accessed 25.03.14). Also see <http://www.wcs.org/press/press-releases/96-elephants.aspx> (accessed 14.08.14).

<sup>24</sup> Wildlife Conservation Society 96 Elephants Campaign, <http://www.96elephants.org/chapter-2> (accessed 13.08.14).

<sup>25</sup> <http://www.awf.org/news/conservation-partners-announce-80m-clinton-global-initiative-commitment-action-partnership-save>.

<sup>26</sup> 'Clinton Global Initiative Commitment to Action: Partnership to Save Africa's Elephants', <http://www.wcs.org/press/press-releases/african-elephants-get-major-boost.aspx> (accessed 30.04.14).

<sup>27</sup> UFW is an initiative by the Duke and Duchess of Cambridge and Prince Harry via the Royal Foundation. It brings together leading conservation organizations (ZSL, WCS, CI, PFI, WWF, IUCN and TNC) to cooperate to facilitate responses to the apparent rise in poaching and trafficking.

<sup>28</sup> 'Conflict' <http://www.unitedforwildlife.org/#!/the-facts/conflict> (accessed 14.08.14).

<sup>29</sup> Carrington, Daniel (2013) 'People and Animals at Immediate Risk from Wildlife Crime, CITES chief warns' *The Guardian* (UK) <http://www.theguardian.com/environment/2013/mar/01/people-animals-wildlife-crime> (accessed 15.08.14).

Scanlon also addressed the US Congressional hearing on ivory and insecurity; he reported that poached ivory from Chad and Sudan was believed to be exchanged against money, weapons and ammunition to support conflicts in neighboring countries.<sup>30</sup> Such high profile statements have been endorsed in more thorough reports by international organizations. A key example is the report by UNEP, CITES, IUCN and TRAFFIC entitled *Elephants in the Dust* which states:

'Political instability, armed militias, criminals, and most importantly, the rise in market demand, have once again resulted in a rise in poaching... Poaching operations range from the old-fashioned camel- and horse-based marauders to active intelligence units and helicopters, the use of which suggests substantial demand' (UNEP et al., 2013: 12).

The report draws on a much fuller range of unpublished, confidential and published information – including data from MIKE, ETIS and CITES, as well as a number of academic studies on poaching rates. However, no source is provided for the statement quoted above, but the statement in the UNEP report is likely to be quoted as supporting evidence by other organizations and individuals.

The recent linkage of wildlife losses, poaching and global insecurity is revealing. What is significant is not necessarily whether we can establish that poaching is funding instability and even global terrorism, in line with the approach of environmental security (Homer-Dixon, 1999; Berdal and Malone, 2000); the important issue is that a wide range of organizations are all communicating the same message in a very similar way, and that their arguments are based on a very narrow evidence base. In making the link to global security, the underlying reasons for the emergence and activities of militia and rebel groups are left as a 'black box' and are not discussed. Further, it deliberately taps into contemporary anxieties about global security threats, the identification of legitimate targets for military action, and the War on Terror. As Cooley and Ron (2002) point out, during the 1990s NGOs in the humanitarian relief sector were increasingly engaged in a competitive market to secure funding and contracts with donors. This dynamic was mirrored in the conservation sector as well, which partly explains why conservation NGOs have been so keen to promote the idea that poaching and trafficking constitute significant national and international security threats. The assumption is that by rendering poaching a security issue it will allow them to tap into the greater resources available for security and anti-terrorism initiatives (as compared with environmental/biodiversity conservation).

#### 4. The material war by conservation

The discursive production of poachers-as-terrorists and ivory as the white gold of Jihad is not just semantics. There is a combined effect of so many organizations promoting the same message, based on a narrow evidence base of inter-linked expert testimonial, the EAL investigation and a small number of high profile journalist accounts. It has a material effect on the calls for renewed forceful approaches to tackle poaching, underpinned by a shift in funding that is being made available to support new initiatives around use of COIN techniques, more commonly associated with War on Terror, notably use of military force, greater surveillance, development of intelligence networks and use of new technologies. This allows conservation to move from fortress conservation to war by conservation because it is increasingly integrated with the agenda of the War on Terror. Below I set out examples to provide

a differentiated analysis of the shifts in techniques and technologies that combine to produce organization within national parks, offensive positions which extend beyond protected areas, and approaches that are spatially extensive and rely on the production and cultivation of wide-ranging surveillance and intelligence gathering networks.

First, it is clear that there has been a policy shift within some national parks which has promoted increasing militarization of conservation, which is spatially confined within the protected areas boundaries (Duffy and Humphreys, 2014; Humphreys and Smith, 2014). However, these shifts are interesting because they are made possible by the 'neoliberal' phase or approach to conservation (see Büscher et al., 2012; Massé and Lunstrum, 2015), since they rely on and normalize the use of the private sector to provide security within protected areas. A good example is the ways WWF has turned to private military companies (PMCs) to deliver security operations in protected areas that they manage on behalf of states. WWF has contracted a private military company to deliver anti-poaching. Israeli-based Maisha Consulting offers training for poaching units in Garamba National Park, DRC and has provided security advice and installed a network of remote surveillance cameras in Dzangha-Sangha National Park in the Central African Republic.<sup>31</sup> The use of PMCs to deliver anti-poaching was used on a small scale before the current rises in poaching, but it is an increasingly common approach especially in areas where the State lacks enforcement capacity. The discursive production of poachers as criminals, militias and terrorists has made it possible to consider, accept and implement new approaches that more closely reflect the methods of the War on Terror and global intervention. This also indicates that while this paper focuses on the Horn of Africa and the War on Terror, some of the ways that security and conservation are being integrated are mirrored elsewhere.

Militarization within national parks is also discernible in South Africa's current rhino wars. The appointment of Major General Johan Jooste (retired) as coordinator of anti-poaching for Kruger National Park in South Africa in 2012 is indicative of the increasing militarization of anti-poaching efforts. Jooste has argued that SAN-Parks staff face a rising level of armed incursions by poachers, and that organized crime networks are involved, such that there is a need for a more aggressive response from those mandated with protecting rhinos. Jooste clearly identifies poaching as a declaration of war, linking it to wider regional security issues, such as control of illegal migration routes through protected areas as well as governance failures in neighboring states, especially Mozambique (see Humphreys and Smith, 2014; Rademeyer, 2012; Lunstrum, 2014; Dunn, 2009).<sup>32</sup> The case of South Africa also indicates how policies that are initially designed for protected areas are quickly and easily reconfigured for further extension outside those boundaries; for example, Massé and Lunstrum (2015) demonstrates how land adjacent to Kruger and on the Mozambican side of the border is being captured by private interests under the guise of providing security for wildlife in Kruger National Park). Humphreys and Smith (2014) point to a 'rhinofication' South African security, suggesting that the intensification of the anti-poaching strategy of SAN-Parks is part of a trend towards militarization which resembles developments in late-modern warfare. These emphasize close targeting of individuals or groups, under the banner of 'man-hunting' or 'targeted killings'. South Africa's management plan for black rhino points to the critical importance of better intelligence systems to prevent poaching, rather than relying on prosecutions after a rhino has been killed (Knight et al., 2013: 38; Department of Environmental Affairs, 2013: 20). South Africa now offers a cash

<sup>30</sup> John Scanlon, expert witness testimonial to the US Senate Foreign Relations Committee Hearing 'Ivory and Insecurity: The Global Implications of Poaching in Africa' 22.05.12. [http://www.foreign.senate.gov/imo/media/doc/Scanlon\\_Testimony.pdf](http://www.foreign.senate.gov/imo/media/doc/Scanlon_Testimony.pdf) (accessed 15.08.14).

<sup>31</sup> <http://maisha-consulting.com/environmental-security> (accessed 15.08.14).

<sup>32</sup> <http://www.sanparks.org/about/news/default.php?id=55388> (accessed 03.09.13).

reward of R100,000 for information which leads to arrest and R1,000,000 for successful conviction of the heads of criminal poaching gangs. The initiative links in with Crime Line and allows the public to give anonymous information via SMS.<sup>33</sup> Büscher and Ramutsindela (forthcoming) argue that such approaches rely on rebuilding the kinds of intelligence and surveillance networks that characterized the Apartheid regime in South Africa.

South Africa has received perhaps the greatest level of attention and particular projects have received large donations from philanthropists who are keen to support more forceful approaches to conservation (for a broader discussion of philanthropy in conservation see Ramutsindela et al. (2011) and Holmes (2012)). One example is the US\$25 million donation by the Howard G. Buffett Foundation to the Kruger National Park to set up an Intensive Protection Zone for rhinos inside the park during 2014–2017; another is the R26.8 million (US\$2.5 million) donation to Peace Parks Foundation from the Dutch and Swedish Postcode Lotteries to work with Ezemvelo KZN to conserve rhinos in protected areas. Rhinos have been presented as national heritage that requires militarized defence against organized crime networks that originate outside the country. In line with arguments made by Peluso and Vandergeest (2011) it can be argued that militarized approaches to anti-poaching in South Africa have been used by the State to gain greater control over territory in the border area with Mozambique. Concerns about security and securing the border have been key arguments in justifications for more forceful responses by state agencies, notably by SANParks (Massé and Lunstrum, 2015; Böscher and Ramutsindela, forthcoming).

National governments have also developed new initiatives to respond to the increases in poaching that go beyond the confines of protected areas. In February 2014 the US Government announced its National Strategy to Combat Wildlife Trafficking; its three approaches are increased enforcement, demand reduction and increased international cooperation and commitment (White House, 2014). In June 2014 the UK Department of Environment, Food, Rural Affairs and the Department for International Development invited applications to a £10 million illegal wildlife trade challenge fund which was available to help develop the Elephant Protection Initiative support practical actions to combat poaching and trafficking in line with the three pillars of the London Declaration and hosting a follow up conference in Botswana in 2015.<sup>34</sup> It was not a requirement that projects be linked to protected areas per se, they can extend out in spatial terms, but they could also be engaged at the national and regional levels, since training of law enforcement officials and support for design and enforcement of new national level anti-poaching laws were also supported by the fund.

Finally, war by conservation is characterized by techniques that are more commonly associated with COIN and global security initiatives. Some indicative examples are useful here, many more could be cited. Google provided US\$5 million to WWF to purchase and operate drones as part of its anti-poaching initiatives<sup>35</sup>; and US \$750,000 was provided to ZSL for installation of camera traps with automated sensors in Kenya; the sensors transmit alerts of gunfire, vehicle movement, and human presence. These two projects were funded as part of Google's Global Impact Awards, which aim to assist in expansion of new technologies in key global challenges. The use of drones is not necessarily indicative of a shift to war by conservation, it is the context in which they are deployed which is important; for example, drones have multiple purposes and have been promoted by

drone manufacturers, scientists and some conservation organisations as a low cost option for data collection, including wildlife movements in remote areas that cannot be covered by existing parks staff (Marris, 2013). War by conservation is also discernible in material ways in broader anti-poaching strategies in Kenya. For example, Kenya Wildlife Service declared 2011 the 'year of the rhino' to direct focus and resources; the rhino ranger force has been expanded by more than 25% during 2011 via a process during which rhino scouts on private lands were converted into Kenya Police Reservists; community scouts have also been offered formal training in wildlife protection, sniffer dogs have been used at international ports, tracker dogs have been used for monitoring, and rhinos have been relocated from areas of high risk to areas of low risk (KWS, 2012: 24).

Another clear example of the shift to war by conservation in material ways was the launch of 'Stabilization Through Conservation' or StabilCon by the Tsavo Trust in December 2014. Tsavo Trust argues that it is a recognition that the temptation to poach can only be tackled via poverty reduction; it is firmly rooted within a security approach to tackling environmental change, especially illegal hunting of elephants. It aims to recruit and train anti-poaching units drawn from the local community to enhance the physical security of wildlife and communities in at-risk areas; its proponents also state that intelligence gathering and development of information networks are critical to the success of the initiative.<sup>36</sup> It has full support from the Governor of the Tana River County and from the Kenyan Government. Ian Saunders, Chief Operations Officer for Tsavo Trust, has been appointed as the security adviser to the Governor of Tana River County; Saunders brings a specific set of skills and expertise since he has a background in counter insurgency operations in Afghanistan.<sup>37</sup>

The production of poachers-as-terrorists, and as legitimate targets for a war by conservation, has had significant material effects. Conservation, global security and COIN are becoming increasingly integrated, which signals a significant shift from earlier phases characterized as fortress conservation or war for biodiversity. This has resulted in the militarization of approaches within the boundaries of protected areas (see Duffy and Humphreys, 2014; Humphreys and Smith, 2014; Lunstrum, 2014; Dunn, 2009); but we can also detect a range of new offensives that extend well beyond these boundaries and into the lands and communities that surround them; these include the extension of state control over territories and unruly populations (Peluso and Vandergeest, 2011). It is significant that local communities are also being drawn in and reconfigured as a 'first line of defence' against poachers-as-terrorists, rendering them military operatives engaged in advancing the agendas of external actors concerned about global security. Further, war by conservation infuses national and global level policies and debates, not just in the biodiversity conservation sector but also in debates about how best to respond to global security concerns. This is a significant shift from fortress conservation and war for biodiversity into a phase of warfare that is prosecuted by conservationists. Furthermore, these changes demand a fresh examination of debates on the links between environment and conflict provided by environmental security and political ecology. Neither can fully explain the recent shift to war by conservation, and instead it is useful think through how conservation is being more fully integrated with global security concerns, which facilitates the use of a wider range of COIN techniques including

<sup>36</sup> Stabilization Through Conservation, <http://tsavotrust.org/stabilcon/> (accessed 23.03.15).

<sup>37</sup> The links between conservation and stabilization were discussed at the StabilCon launch event at the Royal United Services Institute (RUSI) in London on 1 December 2014; it was attended by Ian Saunders, Chief Operations Officer, Tsavo Trust, Professor Judi Wakhungu, Secretary of State for the Environment, Water and Natural Resources, Republic of Kenya; Ambassador Hussein Dado, Governor, Tana River County, Republic of Kenya. The author was an invited member of the discussion panel.

<sup>33</sup> <http://www.sanparks.org/about/news/default.php?id=55388> (accessed 30.09.14).

<sup>34</sup> DEFRA/DFID Call for funding applications, <https://www.gov.uk/government/publications/the-illegal-wildlife-trade-challenge-fund> (accessed 15.08.14).

<sup>35</sup> <http://www.worldwildlife.org/stories/google-helps-wwf-stop-wildlife-crime> (accessed 15.08.14).



surveillance, use of drones and camera traps, intelligence gathering and greater use of pre-emptive and deadly force by national armies, private military companies and state-based conservation agencies.

## 5. Conclusion

We are entering a new phase marked by a shift to *war by conservation* because conservation is becoming deeply implicated in advancing a global security agenda, such that conservation agencies themselves are engaged in prosecuting warfare against targets defined as poacher-terrorists. This shift has been facilitated by a rise in illegal hunting, especially of elephants and rhinos in Sub-Saharan Africa, the development and deployment of new forms of surveillance technology and the production of a discursive link between poaching and terrorism. The remarkable similarity of statements from NGOs, Governments and international organizations has provided the legitimating arguments for the claims, especially that ivory is used to fund Al Shabaab. Using debates on environmental security, political ecology and interventionism, allows for a better understanding of how the argument of *poacher-as-terrorist* is being deployed and what implications it holds for practice on the ground. The core themes that are more usually associated with narratives around global security have been effectively used and operationalized in relation to 'defence/protection' of the non-human world. It has become more possible to consider and authorize the use of force in defence of wildlife. While conservation has a long history of using violent methods (Neumann, 2004) including shoot-to-kill, the current phase differs because conservation is becoming a core part of a global security apparatus; therefore using force to protect elephants and rhinos is increasingly presented and justified as a win-win of conservation and global security. The implications of this in terms of long term conservation practice are potentially significant.

First the ways that conservation is integrating with security concerns has the potential to place rangers in the front line, not in a poaching war but in the War on Terror. This has implications for current and future staff. For example, rangers did not necessarily enter the profession with the goal of being active combatants in a War on Terror. For some this will not be acceptable, and conservation agencies are likely to lose valuable well trained staff at a time when they can least afford to.

Second, it raises complex questions about the impact on communities of shifting to conservation as a form of combat or military style intervention that extends beyond the boundaries of protected areas. Such as shift has the capacity to fundamentally change hard won relationships with local communities, alienating them and reducing their support for conservation in the longer term. Of course there will inevitably be cases where local communities welcome greater levels of enforcement of parks because it provides them with security from armed groups such as LRA, Janjaweed and Al Shabaab.

Third, although the extension of war by conservation both in terms of territory and strategy is currently confined to a few

countries, especially in Sub-Saharan Africa (notably Kenya, South Africa, Tanzania, Mali, Gabon and Central African Republic), it sets a precedent. It is entirely possible that once key populations of rhinos and elephants are either lost to poaching or are secured in those locations, then organized poaching will turn to new sources of supply (e.g. Namibia for rhinos and Botswana for elephants). Equally, if new 'frontlines' open up in the War on Terror, then the war by conservation is already operational and can be more easily and quickly utilized and extended. There are already examples from other regions, such as the use of drones and other military tactics in Kaziranga National Park in India and use of drones to monitor illegal fishing in the territorial waters of Belize, also known as an important drug trafficking route in Central America.

Fourth, such shifts have the capacity to undermine conservation NGOs. There are significant reputational risks associated with working closely with state-level security services. This is especially important communities that regard the state as an oppressive force rather than as a democratic representative and provider of security and welfare. Conservation NGOs run the risk of simply being regarded as facilitating and implementing the agenda of a hostile actor (the state). Similar arguments can be made with regard to whether conservation NGOs might be regarded as unwelcome agents of powerful states engaged in the War on Terror. Forming such alliances makes conservation a central part of a global political project – moving it far from its core mission of trying to save species from extinction.

Finally, in theoretical terms, the shift towards war by conservation presents us with a rich and fascinating field of conceptual enquiry. The aim of this paper is to open up that debate and indicate areas for future work. It is important to investigate whether the (continuing) neoliberal phase of conservation laid the groundwork to make war by conservation possible; for example, without the neoliberal phase, would conservationists have accepted the use of private military companies so readily if they had not already developed such strong links with the private sector. There is capacity for much greater theoretical development around the limits of current environmental security and political ecology approaches to understanding the links between resources and conflict.

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## Appendix A. Timeline

2007–8	Range of conservation NGOs and government agencies start to note rises in elephant and rhino poaching
2010	ICCWC established

(continued on next page)

- 2012 Elephant Action League (EAL) place report on poaching their website  
Johan Jooste appointed as coordinator of anti poaching in Kruger National Park, identifies poaching as a declaration of war  
National Geographic and WWF convene a panel with the US Secretary of State on military support for anti poaching  
ICCF convenes hearing on The Global Poaching Crisis, with expert testimonials  
Google provides US\$5 million to WWF and ZSL to develop the use of drones for conservation surveillance in northern Kenya
- 2013 Westgate Mall attack, Nairobi  
Prince Charles convenes high level meeting to galvanize a UK response to poaching wars  
President Obama issues Executive Order 13648 on Combatting Wildlife Trafficking  
WCS launches 96 Elephants campaign  
United for Wildlife formed  
Clinton Global Initiative announce intention to raise US\$80 million to combat poaching and trafficking  
CITES Director John E Scanlon issues a series of statements about poaching and global security  
UNEP report Elephants in the Dust
- 2014 South Africa releases figures showing a threshold of 1000 rhino killed in one year  
Symposium on wildlife trafficking held at Zoological Society of London on behalf of UfW  
London Conference on the illegal wildlife trade  
London Declaration on the illegal wildlife trade arising from the London Conference  
UK Government DEFRA/DfID Illegal Wildlife Trade Challenge fund of £10 million launched to support the objectives of the London Declaration  
UfW launches #whosideareyouon  
US Government announces National Strategy to Combat Wildlife Trafficking  
USAID makes US\$40 million available for projects tackling the illegal wildlife trade  
US\$25 million donation by Howard G. Buffett Foundation for anti poaching in Kruger National Park
- 2015 Second International Conference on the Illegal Wildlife Trade held in Kasane, Botswana March 2015 – Kasane Statement issued  
Government DEFRA/DfID commits a further £5 million for the Illegal Wildlife Trade Challenge Fund  
RUSI report launched questioning the link between ivory and Al-Shabaab

## References

- Adams, W.M., 2004. *Against Extinction: The Story of Conservation*. Earthscan, London.
- Andreas, P., Greenhill, K.M., 2010. Conclusion: numbers in politics. In: Andreas, P., Greenhill, K.M. (Eds.), *Sex, Drugs and Body Counts: The Politics of Numbers in Global Crime and Conflict*. Cornell University Press, Ithaca and London, pp. 264–278.
- Ayling, J., 2013. What sustains wildlife crime? Rhino horn trading and the resilience of criminal networks. *Int. J. Wildl. Law Policy* 16 (57), 57–80.
- Bannon, I., Collier, P. (Eds.), 2003. *Natural Resources and Violent Conflict: Options and Actions*. World Bank, Washington, DC.
- Benjaminsen, T.A., Alinon, K., Buhaug, H., Buseth, J.T., 2012. Does climate change drive land-use conflicts in the Sahel? *J. Peace Res.* 49, 97–111.
- Berdal, M., 2003. How 'new' are 'new wars'? Global economic change and the study of Civil War. *Glob. Gov.* 9, 477–502.
- Berdal, M., Malone, D. (Eds.), 2000. *Greed and Grievance: Economic Agendas in Civil Wars*. Lynne Rienner, Boulder, CO.
- Brockington, D., 2002. *Fortress Conservation: The Preservation of the Mkomazi Game Reserve Tanzania*. Oxford: James Currey.
- Brockington, D., 2009. *Celebrity and Environment: Fame, Wealth and Power in Conservation*. Zed Books, London.
- Brockington, D., Duffy, R., Igoe, J., 2008. *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*. Earthscan, London.
- Buhaug, H., 2010. Climate not to blame for African civil wars. *Proc. Natl. Acad. Sci. USA* 107, 16477–16482.
- Büscher, B., Ramutsindela, M. (2015). Green violence: rhino poaching and the war to save southern Africa's peace parks. *Afr. Aff.* (forthcoming).
- Büscher, B., Sullivan, S., Neves, K., Igoe, J., Brockington, D., 2012. Towards a synthesized critique of neoliberal biodiversity conservation. *Capitalism Nat. Socialism* 23 (2), 4–30.
- Butler, C.K., Gates, S., 2012. African range wars: climate, conflict, and property rights. *J. Peace Res.* 49, 23–34.
- Challender, D., MacMillan, D.C., 2014. Poaching is more than an enforcement problem. *Conserv. Lett.* 7 (5), 484–494.
- CITES, 2012. *Elephant conservation, illegal killing and ivory trade: report to the standing committee of CITES*. In: *Sixty-second Meeting of the Standing Committee*. CITES, Geneva. Document reference SC62 Doc 46.1.
- Collier, P., Hoeffler, A., 2005. Resource rents, governance, and conflict. *J. Confl. Resolut.* 49, 625–633.
- Collier, P., Hoeffler, A., Eliot, L., Hegre, H., Reynal-Querol, M., Sambanis, N., 2003. *Breaking the conflict trap*. Civil War and Development Policy. Oxford University Press, Oxford.
- Collier, P., Conway, G., Venables, T., 2008. *Climate Change and Africa*. *Oxford Rev. Econ. Policy* 24, 337–353.
- Cooley, A., Ron, J., 2002. The NGO scramble: organizational insecurity and the political economy of transnational action. *Int. Secur.* 27, 5–39.
- Corson, C., 2010. Shifting environmental governance in a neoliberal world: US aid for conservation. *Antipode: A Radical J. Geogr.* 42 (3), 576–602.
- Davis Cross, M.K., 2012. Rethinking epistemic communities twenty years later. *Rev. Int. Stud.* 39 (1), 137–160.
- Department of Environmental Affairs, 2013. *Rhino Issue Management Report*. Government of South Africa.
- Dressler, W.H., Guieb, E.R., 2015. Violent enclosures, violated livelihoods: environmental and military territoriality in a Philippine frontier. *J. Peasant Stud.*
- Duffy, R., Humphreys, J., 2014. *Mapping Donors: Key Areas for Tackling Illegal Wildlife Trade (Africa and Asia)*. Evidence on Demand Report HD151.
- Duffy, R., St. John, F.A.V., Büscher, B., Brockington, D., 2015a. Towards a new understanding of the links between poverty and illegal wildlife hunting. *Conserv. Biol.* <http://dx.doi.org/10.1111/cobi.12622>.
- Duffy, R., St. John, F.A.V., Büscher, B., Brockington, D., 2015b. The militarization of anti-poaching: undermining long term goals? *Conservation*. <http://dx.doi.org/10.1017/S0376892915000119>.
- Dunn, K.C., 2009. Contested state spaces: African national parks and the state. *Eur. J. Int. Relat.* 15 (3), 423–446.
- Eckert, S.E., Biersteker, T., 2010. (Mis)measuring success in countering the financing of terrorism. In: Andreas, P., Greenhill, K.M. (Eds.), *Sex, Drugs and Body Counts: The Politics of Numbers in Global Crime and Conflict*. Cornell University Press, Ithaca and London, pp. 247–263.
- Ellis, S., 1994. Of elephants and men: politics and nature conservation in South Africa. *J. S. Afr. Stud.* 20 (1), 53–69.
- Fairhead, J., Leach, M., Scoones, I., 2012. Green grabbing: a new appropriation of nature? *J. Peasant Stud.* 39, 237–261.
- Fairhead, James., 2001. International dimensions of conflict over natural and environmental resources. In: Peluso, N.L., Watts, M. (Eds.), *Violent Environments*. Cornell University Press, Ithaca, pp. 213–236.
- Gleditsch, N.P., 2012. Whither the weather? Climate change and conflict. *J. Peace Res.* 49, 3–9.
- Gleditsch, N.P., 1998. Armed conflict and the environment: a critique of the literature. *J. Peace Res.* 35, 381–400.
- Haas, P.M., 1992. Epistemic communities and international policy coordination. *Int. Organ.* 46, 1–35.
- Hartmann, B., 2014. Converging on disaster: climate security and the Malthusian anticipatory regime for Africa. *Geopolitics* 19, 757–783.
- Holmes, G., 2012. Biodiversity for billionaires: capitalism, conservation and the role of philanthropy on saving/selling nature. *Dev. Change* 43 (1), 185–203.

- Homer-Dixon, T., 1999. *Environment, Scarcity, and Violence*. Princeton University Press, Princeton, NJ.
- Homer-Dixon, 1994. Environmental scarcities and violent conflict: evidence from cases. *Int. Secur.* 19, 5–40.
- Homer-Dixon, T., 1991. On the threshold: environmental changes as causes of acute conflict. *Int. Secur.* 16, 76–116.
- Humphreys, J., Smith, M.L.R., 2014. The 'rhinification' of South African security. *Int. Aff.* 90 (4), 795–818.
- Kaldor, M., 2012. *New and Old Wars: Organized Violence in a Global Era*. Polity, London.
- Kalron, N., Crosta, A., 2012. Africa's white gold of Jihad: al-Shabaab and conflict ivory. Elephant Action League. <<http://elephantleague.org/project/africas-white-gold-of-jihad-al-shabaab-and-conflict-ivory/>>.
- Kaplan, R., 1994. *The Coming Anarchy: How Scarcity, Crime, Overpopulation, Tribalism and Disease are rapidly destroying the Social Fabric of Our Planet*, Atlantic Monthly. <<http://www.TheAtlantic.com/atlanctic/election/connection/foreign/anarcf.htm>>.
- Knight, M.H., Emslie, R.H., Smart, R., compilers, 2013. *Biodiversity Management Plan for the White Rhinoceros (Diceros Bicornis) in South Africa 2013–2018* prepared by the SADC Rhino Management Group following a Multi-stakeholder Workshop at the request of the South African Minister of the Environment on Behalf of Department of Environmental Affairs.
- KWS, 2012. *Conservation and Management Strategy for the Black Rhino and Management Guidelines for the White Rhino in Kenya (2012–2016)*. Kenya Wildlife Service, Nairobi.
- Kumleben, M.E., 1996. *Report of the Commission of Enquiry into the Alleged Smuggling of and Illegal Trade in Ivory and Rhinoceros Horn in South Africa*. Durban, South Africa.
- Lawson, K., Vines, A., 2014. *Global Impacts of the Illegal Wildlife Trade: The Costs of Crime, Insecurity and Institutional Erosion*. Chatham House, London.
- Leakey, R., 2001. *Wildlife Wars: My Battle to Save Kenya's Elephants*. Pan, London.
- Le Billon, P., 2001. The political ecology of war: Natural resources and armed conflicts. *Polit. Geogr.* 20 (5), 561–584.
- Le Billon, P., 2012. *Wars of Plunder: Conflicts, Profits and the Politics of Resources*. Hurst and Columbia University Press, London, New York.
- Le Billon, P., 2008. Diamond wars? Conflict diamonds and geographies of resource wars. *Ann. Assoc. Am. Geogr.* 98, 345–372.
- Le Billon, P., 2005. *Geopolitics of Resource Wars: Resource Dependence, Governance and Violence*. Frank Cass, London.
- Lunstrum, E., 2014. Green militarization: anti-poaching efforts and the spatial contours of Kruger National Park. *Ann. Assoc. Am. Geogr.* 104, 816–832.
- MacKenzie, J.M., 1988. *Empire of Nature*. Manchester University Press, Manchester.
- Marris, E., 2013. Drones in science: fly, and bring me data. *Nature* 498, 156–158.
- Massé, F., Lunstrum, E., 2015. Accumulation by securitization: commercial poaching, neoliberal conservation and the creation of new wildlife frontiers. *Geoforum*. <http://dx.doi.org/10.1016/j.geoforum.2015.03.005>.
- Mcguire, T./RUSI, 2015. *An Illusion of Complicity: Terrorism and the Illegal Ivory Trade in East Africa*. RUSI Occasional Paper. RUSI, London.
- Milliken, T., Emslie, R.H., Talukdar, B., 2009. *African and Asian Rhinoceroses – Status, Conservation and Trade*. A Report from the IUCN Species Survival Commission (IUCN/SSC) African and Asian Rhino Specialist Groups and TRAFFIC to the CITES Secretariat, Pursuant to Resolution Conf. 9.14 (Rev. CoP14) and Decision 14.89, CoP15 Doc. 45.1.
- Milliken, T., Shaw, J., 2012. *The South Africa–Viet Nam Rhino Horn Trade Nexus*. TRAFFIC, Cambridge.
- Nellemann, C., Henriksen, R., Raxter, P., Ash, N., Mrema, E. (Eds.), 2014. *The Environmental Crime Crisis – Threats to Sustainable Development from Illegal Exploitation and Trade in Wildlife and Forest Resources*. A UNEP Rapid Response Assessment. United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal.
- Neumann, R., 1998. *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*. University of California Press, Berkeley.
- Neumann, R.P., 2004. Moral and discursive geographies in the war for biodiversity in Africa. *Polit. Geogr.* 23 (7), 813–837.
- Pearson, C., 2012. Researching organized landscapes: a literature review on war and the organization of the environment. *Landscape Res.* 37 (1), 115–133.
- Peluso, N.L., 1993. Coercing conservation? The politics of state resource control. *Glob. Environ. Change* 3 (2), 199–217.
- Peluso, N.L., Watts, M. (Eds.), 2001. *Violent Environments*. Cornell University, Ithaca.
- Peluso, N.L., Vandergeest, P., 2011. Political ecologies of war and forests: counterinsurgencies and the making of national natures. *Ann. Assoc. Am. Geogr.* 101 (3), 587–608.
- Rademeyer, J., 2012. *Killing for Profit: Exposing the Illegal Rhino Horn Trade*. Zebra Books, Cape Town.
- Ramutsindela, M., Spierenburg, M., Wels, H., 2011. *Sponsoring Nature: Environmental Philanthropy for Nature Conservation*. Earthscan, London.
- Reeve, R., Ellis, S., 1995. An insider's account of the South African security force's role in the ivory trade. *J. Contemp. Afr. Stud.* 13, 222–243.
- Selby, J., 2014. Positivist climate conflict research: a critique. *Geopolitics* 19, 829–856.
- Selby, J., Hoffman, C., 2014. Rethinking climate change, conflict and security. *Geopolitics* 19, 747–756.
- Sellar, J., 2014. *The UN's Lone Ranger: Combating International Wildlife Crime*. Whittles Publishing, Caithness.
- Smith, M.L.R., Rotshuizen, S., 2013. Of warriors, poachers and peacekeepers: protecting wildlife after conflict. *Cooper. Confl.* 48, 502–521.
- Standley, S., Emslie, R.H., 2013. *Population and Poaching of African Rhinos across African Range States 2007–2012*. Consultancy Report for DfID, August 2013. Evidence on Demand Report (No. HD078).
- Theisen, O.M., Gleditsch, N.P., Buhaug, H., 2013. Is climate change a driver of armed conflict? *Clim. Change* 117, 613–625.
- TRAFFIC, 2008. *What's driving the Wildlife Trade? A Review of Expert Opinion on Economic and Social Drivers of the Wildlife Trade and Trade Control Efforts in Cambodia, Indonesia, Lao PDR and Vietnam*. TRAFFIC International, Cambridge/World Bank, Washington, DC.
- UNEP, CITES, IUCN, TRAFFIC, 2013. *Elephants in the Dust – The African Elephant Crisis. A Rapid Response Assessment*. United Nations Environment Programme, Nairobi.
- United Nations, 2013. *Report of the Secretary General on the Activities of the United Nations Regional Office for Central Africa and on the Lord's Resistance Army affected areas*. UN, New York. Report Reference S/2013/297.
- White, N., 2014. The "White Gold of Jihad": violence, legitimisation and contestation in anti-poaching strategies. *J. Polit. Ecol.* 21, 452–474.
- White House, 2014. *National Strategy for Combatting Wildlife Trafficking*. US Government, Washington, DC.
- Williams, P.D., 2014. After westgate: opportunities and challenges in the war against Al Shabaab. *Int. Aff.* 90 (4), 907–923.
- Wittemyer, G., Northrup, J.M., Blanc, J., Douglas-Hamilton, I., Omondi, P., Burnham, K.P., 2014. Illegal killing for ivory drives global decline in African elephants. *Proc. Natl. Acad. Sci.* 111 (36), 13117–13121.
- Wyatt, T., 2013. *Wildlife Trafficking: A Deconstruction of the Crime, the Victims and the Offenders*. Palgrave Macmillan, Basingstoke, UK.
- Wylter, L.S., Sheikh, P.A., 2013. *International Illegal Trade in Wildlife: Threats and U. S. Policy*. Congressional Research Service Report. US Congress, Washington, DC. Report Reference RL34395.
- Ybarra, M., 2012. Taming the jungle, saving the Maya Forest: sedimented counterinsurgency practices in contemporary Guatemalan conservation. *J. Peasant Stud.* 39 (2), 479–502.