Society and the rhino

A whole-of-society approach to wildlife crime in South Africa

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The recent and rapid increase in wildlife crime threatens not only the survival of significant populations of endangered species in South Africa but also regional security, the sustainability of the tourism sector and the social stability of communities. Many wildlife crime interventions fail to achieve sustained impact due to the complexity of the crime. Different aspects of the problem are interconnected, but stakeholders address them in parts. This causes some to view the problem as too complex to address, thus promoting a state of crisis management. Addressing wildlife crime requires harmonising efforts, incorporating on-the-ground cross-border cooperation that balances conserving wildlife with stakeholder needs for socio-economic development and local, national and regional stability. This article explores innovative and integrated ways to mitigate the complexity of wildlife crime, framed as a 'whole-of-society' response to the challenge with a specific focus on implementation.

Biodiversity loss and ecosystem collapse pose significant risks to the planet.¹ Damage is caused by a range of factors, including climate change, crime and inadequate governance. In South Africa, wildlife crime poses a significant threat to biodiversity, communities and tourism. It promotes ecological degradation, counteracts conservation efforts and poses a threat to the sustainable development and use of natural resources. It also exploits socio-economically vulnerable communities. Additionally, some communities on the borders of protected areas use socio-political issues to justify poaching as a form of protest.² Corruption often

* Dr Duarte Gonçalves is based at the Defence, Peace, Safety and Security Unit of the Council for Scientific and Industrial Research, where he leads a group focused on whole-of-society approaches to security problems and the capabilities required to address them. accompanies wildlife crime. From the glamorous Big Five to the forgotten cycad, wildlife crime threatens many species, often with limited consequences for the perpetrator.

Before it was designated as a national security threat by the South African government in 2016, the Department of Environmental Affairs was responsible for dealing with rhino poaching.³ After reclassification, this responsibility was transferred to the South African Police Service (SAPS), supported by other components of the government's security cluster. Implicit in this shift was a recognition that wildlife crime has a transnational organised crime component, that the associated corruption undermines governance and efforts to deal with poaching, and that a multi-sectoral strategy is needed to address it. Wildlife crime presents decision and policymakers with an opportunity for policy innovation. The interventions required for other complex challenges, such as addressing climate change or entrenched gang activity in Cape Town, lie outside the mandate of a single department or stakeholder. The same is true of wildlife crime. South Africa's National Development Plan (NDP) 2030 is an example of a holistic, whole-of-government and civil society vision of how to deal with such interconnected challenges.⁴ Whole-of-society approaches are applicable to most 21st century governance, especially in relation to macro-level socioeconomic targets.

Using rhino poaching as an example, this article suggests that a whole-of-society approach to addressing wildlife crime in South Africa is urgently needed, with a specific focus on implementation.⁵

The need for a whole-of-society approach

In this section, the need for a whole-of-society approach is outlined with particular focus on a security studies perspective, a policy and strategy implementation perspective, and in relation to the complexity of wildlife crime.

A security studies perspective

Governments might label an act as 'criminal' to justify criminal justice and force-related interventions.⁶ In response to rhino poaching in South Africa, government-run wildlife parks have introduced surveillance technology and transformed park rangers into response forces. As such, poaching and associated crimes have changed how parks are managed and staffed.

McDonald has argued that states tend to define security narrowly, primarily through the designation of threats, with a focus on the *moment* in which state agents might intervene.⁷ The August 2016 event in Nice, France, where a driver steered a truck into a crowd of people, illustrates the difficulty of intercepting 'criminals' at the moment when the offence takes place.⁸ The United States, Netherlands and United Kingdom governments have in recent years reconsidered the balance between the four security chain tasks, namely analysis, prevention, response and evaluation.9 Security efforts and spending tend to focus on the response to incidents, while prevention receives the least attention. Reconsidering the balance requires a shift from a state-centric to a human-centric approach to security that considers the needs of communities and individuals.¹⁰ The broadening human and environmental dimensions of security and the asymmetric nature of security threats require departments that are traditionally nonsecurity to work more closely with securityrelated departments.¹¹

South Africa also tends to focus on the response to wildlife crime, mainly via law enforcement. As South African government departments become larger and more specialised, knowledge, information and capabilities remain 'siloed'; meanwhile, the ability of organisations to respond to rapid change or uncertainty in the environment requires high levels of integration.¹²

Implementation

Integration of the work performed by government departments and other entities is essential if the complex security risks facing South Africa are to be addressed. Research suggests that organisations working to address wildlife crime may understand the subject and associated challenges very differently from others working in the same area.¹³ Part of the reason for this is that organisations have different mandates, which determine what information is gathered and how it is interpreted. On the spectrum of coordination, information sharing is an important but limited element, surpassed by collaboration and cross-organisational strategic collaboration (Figure 1).¹⁴ When addressing complex problems, sharing information is necessary, but not

sufficient. Rather, a cross-organisational strategy is required, where role players agree on shared strategies and methods.¹⁵ Nonetheless, with the global growth of accessible information technology and systems, some parties believe that information sharing is adequate. This view ignores stakeholder interests, which could disrupt, stall or undermine any joint effort.

Figure 1: Spectrum of coordination¹⁶



The successful implementation of strategies in the case of a single organisation can be as low as 10%.¹⁷ Organisational cultures should be realigned to ensure behaviour change by employees, and funds reallocated to ensure successful implementation. In addition, building capabilities to address wildlife crime in a sustainable way requires multiple disciplines, traditionally organised as silos.¹⁸ Social sciences, natural sciences, engineering and technology are key to these capabilities.¹⁹

Common governmental responses to governance challenges deal with immediate problem solving. Such responses are politically expedient and often short-lived (five years or less); for example, the South African government's goal to reduce the number of rhino poached. Such short-term problem solving can increase complexity and cost, but this is not immediately apparent since the costs are borne by many stakeholders. Ultimately, longterm visions and investments are required to effectively tackle complex challenges such as wildlife crime.

Complexity and wildlife crime

Understanding the complexity of wildlife crime is important in order to avoid unrealistic expectations with regard to how it might be addressed. Key factors shaping complexity in wildlife crime are: the number of stakeholders involved; the high stakes; the potential/necessity for numerous simultaneous interventions; and the specific dynamics of rhino poaching. These are explored below.

The involvement of multiple stakeholders

Wildlife crime involves and affects multiple states and their governments, each with a multiplicity of interests and agendas. States may have their own legislation for wildlife crime. In South Africa, wildlife crime spans the mandates of at least 10 government departments, and each department approaches the problem(s) through the lens of their mandate.²⁰ Similarly, elements of the private sector, civil society and various communities are invested in the matter. With regard to rhino poaching, South African communities bordering wildlife parks are often affected by, or involved in, poaching. Over 100 stakeholders have interests in wildlife or are impacted by wildlife crime in the Kruger National Park alone, yet no single person or entity is charged with coordination.²¹

Adding to the complexity of the matter, these groups and entities (among others) embody a variety of values and interests:

- Wildlife products, sought for medicinal and status use in South-east Asia²²
- Conservationists (parks and NGOs), who are 'waging war' to save the rhino²³
- The state, which makes laws and oversees their enforcement
- Poachers and traffickers, who contest the illegality of killing and trafficking rhino.²⁴ For traffickers (the middlemen, transporters and kingpins), rhino horn is a way to make a living
- Communities around parks where access has been restricted, who want access to hunt, earn a living and enter sites of cultural importance (e.g. graves and ancestral grounds)²⁵

• Some private rhino owners, who see rhino as an investment that should yield returns²⁶

High stakes

The stakes in rhino poaching depend on the various stakeholders. Conservationists fear a loss of biodiversity, including the conservation of the rhino. Because 80% of the world's rhino are found in South Africa, rhino poaching is a South African problem with global repercussions.²⁷ Where security and rhino are threatened, wildlife parks risk a loss of income from tourism. Community members who poach rhino or work as armed rangers for the parks face the risk of injury and death. Communities also benefit from these activities, either through legitimate employment in the parks or illicit trade in horns. Some poachers may believe they have no other means to survive. Rhino owners hoping to trade their stock have no market in which to do so. They must also spend money securing their much sought-after stock.

The past and future

Rhino hunting picked up in the 1970s until the mid-1990s and then almost disappeared, resurfacing around 2008 for reasons that are not entirely clear.²⁸ Wildlife crime networks and modus operandi constantly change. For example, the majority of incursions have shifted from the eastern border to the western border of the Kruger Park. Anti-poaching, community and other interventions take time and face resource constraints. They therefore require a long-term vision, but this often varies between stakeholders. Interventions are also fluid in terms of activities and stakeholders, so must be adaptable over time.

The simultaneity of intervention

Wildlife crime converges with other crimes such as illegal possession of weapons and drugs, trespassing, money laundering, fraud, corruption, murder, attempted murder and entrapment.²⁹ Wildlife crime is also a product of broader socio-economic issues such as deprivation, inequality and poorly managed rural densification (among many others) around parks. Without addressing key *cooccurring problems*, such as local community needs, poaching cannot be prevented. Thus simultaneous interventions are necessary, ranging from individual to international. At a park level, international demand management must be addressed at the same time as physical security. It is not a matter of 'either/or', but of 'and'. The challenge is to align interventions to ensure maximum effectiveness and impact, without producing new harms.

The case of rhino poaching reveals this web of interconnected challenges. While law enforcement is frustrated by its inability to get ahead of rhino poaching, some law enforcement managers refer to their efforts as a 'war on poaching' and to poachers as 'insurgents'.³⁰ Such language suggests armed conflict and subversive action against the government. But framing it in this way does not help those working with communities bordering parks. Wildlife parks fragment land and communities. Community interventions offer important alternatives to 'militarisation of conservation', but when law enforcers use militaristic language, these interventions may be viewed with suspicion by community members.³¹

Interventions must occur on multiple timehorizons. From a conservation perspective, the most effective leverage point involves changing perceptions of the value of rhino horn.³² If this is achieved, challenges at other points in the value chain will naturally wither, but altering the value of horn is not straightforward and may take more than five years. However, in order to protect the rhino population, immediate action is also required.

Governance is about role players with diverse but interconnected interests and worldviews, managing the course of events.³³ The notion of purely state-centred security governance is inadequate, and is better conceptualised as polycentric or nodal governance.34 Polycentric governance is 'the simultaneous functioning of multiple centres of governance and decision making with different interests, perspectives, and values'.³⁵ There have been proposals for a whole-of-society approach to security governance in South Africa.³⁶ More specifically, in the context of poor South African communities, the Zwelethemba model was developed to promote the effective governance of security and justice. Government created local institutions or nodes called peace committees with a code of good practice.³⁷ The values espoused were non-violence, cooperation and an orientation towards the future rather than individual blame for community problems. Peace committees used community gatherings to achieve two outcomes.³⁸ The first was peacemaking; i.e., developing responses to disputes and conflicts that seek to reduce the likelihood of them re-occurring. The second outcome was peacebuilding; concerned with addressing local problems in a way that reduces their impact on the life of the community. Built on previous work, the following section presents a whole-ofsociety approach, with a specific focus on the implementation of capabilities.

The whole-of-society model

Regarding rhino poaching in South Africa, the whole-of-society approach accepts that:

- Role players represent a diversity of sectors, values and interests
- Addressing wildlife crime requires inclusive participation in the co-development of strategies and capabilities
- The complexity of wildlife crime requires a particular intervention methodology

In the face of complexity, it is tempting to dismiss methodology in favour of 'practicality'

– but this simply results in 'muddling through'.³⁹ The whole-of-society approach, illustrated in Figure 2, is developed in this section and focuses on capabilities required for implementation. It involves creating a shared understanding of the current situation, developing alternative futures, and proposing cross-organisational interventions that take into account the capabilities required within different enterprises. Depending on the level of the intervention, whether local or national, different stakeholders will be involved in the process. The broad sectors are government departments and agencies, NGOs, business, the public in general, and communities bordering parks.

Planning ought to be complemented by a futures paradigm. Futures studies is the systematic study of possible, probable and preferable futures and worldviews, and the myths and metaphors that underlie each future.⁴⁰ The futures paradigm encourages stakeholders to create a preferred future. In futures, both forecasting and transformation are important. In forecasting, futures studies consider a diversity of indicators and variables that anticipate outcomes. Including different stakeholders in futures processes ensures that their interests and actions are understood by other participants. Several methods for promoting understanding must be used, based on the purpose, the type of information to be communicated and the set of stakeholders. The purpose of such methods is to support group thinking rather than to reach a complete understanding of the problem.

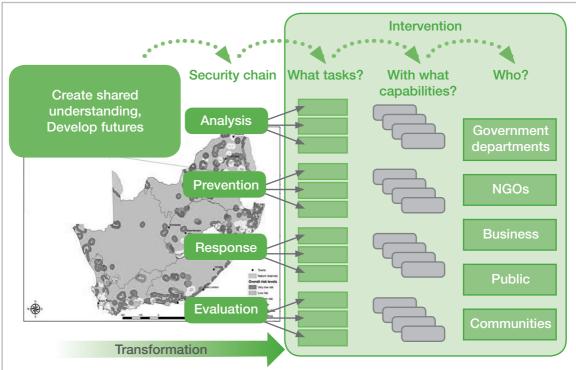
A number of products have been developed to support understanding in the context of rhino poaching, with two examples provided here. The first example is the spatial modelling of community vulnerability to involvement in poaching, which would assist in understanding the geographic context of a community intervention.⁴¹ Inequality and corruption are two factors feeding into this vulnerability and have the potential to be exploited by criminals. The second example involves performance measures. Performance measures such as numbers of arrests and convictions serve the interests of only some stakeholders, in particular law enforcement. Such measures lead to a bias towards arresting poachers in protected areas. The underlying assumption is that arrests and convictions will lead to a reduction in rhino poaching. However, if law enforcement is to disrupt wildlife crime, then the rate at which law enforcers arrest traffickers (middlemen up to the kingpins) and disrupt their activities must exceed the rate at which traffickers are being replaced.⁴² This is a different goal and, were it to be feasible, would require a different measure. Thus, futures studies are important in order to escape a short-term focus by challenging assumptions and particular interests.

Transformation, the second aspect of futures studies, requires changing conscious and

Figure 2: The whole-of-society approach43

unconscious beliefs. For example, does poaching 'happen' as an event or is it 'grown'? If the belief is that poaching happens, then the response is to intercept poachers during their hunt (in time and place). But if it is understood that poaching is grown collectively, different interventions can be considered. This may be obvious on reflection, yet when it is part of an organisational narrative it will hamper progress. For example, at a workshop with South African government departments the organisational narrative was one of 'we live for the present'.44 The framing of an issue and the metaphors used to explain it may produce different interventions, or prevent consensus on an intervention, in so doing shutting down possible futures.⁴⁵ Encouraging open-mindedness allows for alternative futures to be imagined and choices to be made.

From the four generic security chain tasks analysis, prevention, response and evaluation - specific actions are required to perform



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each generic task. These tasks contribute to the solving of problems and creation of opportunities identified in the planning approach, or to creating new futures of choice, subject to legal and other constraints. A problem-solving approach is required at inception. This will help build trust, after which futures can be discussed. Once vulnerabilities have been identified, prevention-related tasks can be discussed. Once those tasks have been described, the necessary capabilities and resources can be identified, and allocated to the relevant stakeholders according to mandate, cost, strategic importance and other considerations.⁴⁶ To aid this process, an audit of stakeholder capabilities may be required.

The set of tasks and capabilities, and the particular allocation to stakeholders is referred to as an intervention. The fundamental principle of a whole-of-society approach is that interventions are developed outside organisational mandates. A siloed approach to interventions leads to creating (new) undesirable consequences, and insufficient resources for implementation. At least two possible interventions should be developed. Debates between stakeholders involved in the selection ensure that the consequences of a particular choice are understood. The intervention builds on a shared understanding of the situation to co-develop a shared approach to addressing the problem. An intervention also includes defining new capabilities required in an organisation.

The South African national strategic response to rhino crime has several interventions: law enforcement, community intervention, biological management, responsive legislative provisions and demand management.⁴⁷ The Department of Environmental Affairs' Rhino Lab, held from 14–26 August 2016, sought to develop detailed implementation plans for each of these areas. The process involved many stakeholders: parks, governmental law enforcement agencies, NGOs and private rhino owners. Communities (represented by a variety of tribal authorities and political leaders) were not adequately represented. The National Integrated Strategy to Combat Wildlife Trafficking (NISCWT) is an example of a law enforcement strategy that embraces a whole-of-government (a part of a whole-of-society) approach, which was developed before the Rhino Lab. The NISCWT strategy is top-down. While there is growing awareness of whole-of-society approaches, topdown planning approaches have a limited ability to deal with the complexities of rhino poaching. For example, in the Kruger National Park, improved surveillance and response capabilities, in conjunction with ranger efforts, led to a decline in poaching in 2016, but the number of attempted incursions detected increased dramatically.⁴⁸ A holistic approach is thus not achieved, in part because of the absence of local-level interventions that address community and other stakeholder needs at the appropriate time and bottom-up.49

This methodology should not be seen as linear. Learning is an important part of responding to complexity in a whole-of-society model, and iteration is required throughout intervention formulation and rollout. As Parsons points out, 'improving policy-making is ... about learning, rather than command and control'.⁵⁰ Jumping to a solution with only a superficial understanding of the problem threatens the intervention. Interventions usually need to be 'separated' in practice, but aligned at the meta and holistic levels. This means that interventions may overlap.

Without understanding the profusion of worldviews in relation to wildlife crime, the same policy recommendations emerge again and again with limited impact. A participative, facilitated approach that creates new measures in the short term and new metaphors in the longer term is required.

Conclusions and future work

Some progress has been made with certain aspects of a whole-of-society approach to rhino poaching in South Africa. However, much work remains in order to increase levels of shared understanding and to create futures for wildlife as well as sustainable livelihoods for communities. This will take many years to build. Where there are examples of community interventions, a concept for a local-level, wholeof-society intervention still requires formulation.

In proposing the whole-of-society model, focused on implementing capabilities, this article has made five core points:

- There is a need to include a range of stakeholders and to engage with their different ways of seeing and understanding wildlife crime and related aspects. This should include knowledge of relevant myths and metaphors. Inclusiveness sets interventions up to succeed rather than fail.
- Developing alternative futures is important for better long-term outcomes, given the complexity of wildlife crime. Futures move interventions away from reactive approaches alone, instead exploring and planning for different outcomes.
- Interventions should be developed outside of organisational mandates. Mandates create lenses through which role players see the world in specific ways. Siloed approaches lead to undesirable consequences and insufficient resources to implement interventions. Intervention formulation should include the identification of tasks and capabilities, and their allocation to stakeholders.
- Capability gaps must be identified and closed. Without the required capabilities, the new strategy will not get off the ground. Capabilities are determined from the tasks required for an intervention. Governance

should dynamically problem solve and close the capability gaps.⁵¹ Foresight is important for capability building, because it takes time.

• Transformation of organisational narratives is important if interventions are to succeed.

These five elements should be at the heart of a whole-of-society approach to wildlife crime. Lessons learned in this regard can be applied to other complex governance problems.

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