Guns, poison and horns

Organised wildlife crime in Southern Africa

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Summary

The incident monitoring component of the new ENACT project is an effort to systematically record instances of transnational organised crime in Africa to strengthen the evidence base of the scale and impact of the phenomenon. The pilot phase of the study focused on the topic of wildlife crime, and covered 10 countries in Southern Africa between 2000 and 2016. Information was collected on 27 different variables including crime type, location, date, species involved and state responses.

Key points

- The ENACT incident monitoring pilot used media monitoring to track reported incidents of organised wildlife crime in the southern region of Africa between 2000 and 2016.
- Since 2010, the number of wildlife crimes in the region has nearly tripled.
- Incidents are dominated by poaching, trafficking and transnational trade in rhino horn, ivory, abalone, big cat parts and pelts (in descending order).
- Based on review of the pilot, modifications were made to the methodology for the next phases.
- Media monitoring and in-depth qualitative research must be used in tandem (with supplemental techniques where possible) to gather a more robust sense of the scale, scope, structure and operation of organised crime in Africa.
There is no shortage of organisations monitoring wildlife crime in Africa, yet the existent data leans heavily towards two areas of organised wildlife crime – poaching and reported trade. The data is especially biased towards the poaching of large and critically endangered species, such as rhino and elephant. As a result, there is a gap in the empirical data on the structure and operational dynamics of the full range of wildlife crimes on the continent. This includes the acquisition of products, group dynamics, movements and availability of products in various consumer markets around the world.

The aim of the ENACT Incident Monitoring Pilot project was to test a new methodology for studying organised crime.

With a focus on incidents and actors, this study relied on media monitoring to record a number of variables related to incidents of organised wildlife crime in a sub-set of southern African countries. The objective of the pilot phase was to gather and analyse data, contextualise findings and discuss their limitations.

In so doing, the project provided new insights into wildlife crime in Southern Africa. This paper details the key findings, contextualises them, and proposes changes to methodology to better capture the scale and scope of wildlife crime and provide the flexibility necessary to cover other types of organised crime in other regions of Africa.

As the project develops, the results of this project should become an additional source of information on the structural and operational dynamics of a range of organised crime types on the continent, including the trafficking of illicit drugs, counterfeit goods and trafficking in persons.

Understanding wildlife crime in Southern Africa

Wildlife crime is the fourth most lucrative form of organised crime globally and is one of the most expensive security challenges facing Southern Africa. In *Transnational Crime in the Developing World*, Global Financial Integrity (GFI) reports that the annual cost of illicit wildlife trafficking (excluding logging) is in the range of US$5 billion and US$23 billion globally. Wildlife crime has evolved from a conservation issue to a national security priority in a number of southern African countries.

For any given wildlife crime, there is a specific product or species (e.g. pangolin, rhino or abalone), a range of actors (e.g. poachers, smugglers, merchants, exporters or importers), destination markets (e.g. jewellery, restaurant industry or zoo industry), points of origin (e.g. continent or region, country or national park) and sets of domestic and/or international laws that have been broken.

Wildlife crime is typically studied according to the different stages of the process (poaching, smuggling, etc.) and the actors involved (individuals, syndicates, etc.).

It is also studied, however, according to supply and demand dynamics, where supply refers to the origin countries (in this case Africa), and demand to the countries with the consumer markets for the products (now mostly East Asia).

Mammals make up the largest component of illegally seized species in Africa, followed by birds and reptiles. Eastern and Southern Africa are home to some of the most valuable and now endangered mammals, including black and white rhino, elephant, big cats and the world’s most trafficked animal: pangolin.

Increased demand in recent years has amplified the challenge, but the bulk of mitigation efforts are aimed at curbing supply, including anti-poaching measures, securitising national parks and deploying large-scale investigations. In South Africa alone, the securitisation of the nation’s largest park, Kruger National Park is said to cost around R200 million annually. In 2015/2016, the park employed an estimated 400 field rangers, 22 section rangers and 15 special rangers.

Compared to these supply side policies, efforts to curb demand of illegal wildlife products – such as educational programmes on the consumption of certain species for the purposes of traditional medicine in East Asian countries – pale in comparison. Additionally, they are almost exclusively handled by NGOs – as opposed to states or international organisations. Studies focused on the social and economic drivers of demand in foreign countries remain limited, while there are hundreds of studies and reports on poaching in Africa.

Despite the amount of research available, the clandestine nature of wildlife crime makes it extremely difficult to measure its scale and the dimensions of actors, species, activities, state responses and drivers.

Defining and measuring wildlife crime is further complicated by the many different definitions of what
constitutes wildlife, for example whether it includes only animal (fauna) species and also plant and tree species (flora). In legal documents and conventions, the term wildlife is not used as often as protected species, which corresponds with the levels of protections as listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) appendices. Problems with defining and measuring apply to not only wildlife crime, but to all forms of organised crime. Conceptually, the major sources of information on crime data can be categorised into four groups, namely direct experiences; the experiences of others (e.g. media and newsletters); purposeful academic research (e.g. surveys and qualitative studies); and official and government information.

Official and government data

Official and government data are typically collected at two key stages along the crime spectrum; first, the illegal acquisition of certain species (poaching statistics) and secondly, the illegal movement or smuggling of the species or product across borders (seizure data). Law enforcement bodies and park rangers report on incidents of poaching (typically of certain species such as rhino and elephant) and customs officers report on seizures of illicit wildlife products at airports and border points.

According to official rhino poaching statistics in Africa, there has been a year-on-year increase in poaching incidents since 2006, with a near doubling from 2009 to 2010 and a sustained increase to 2015 – see Figure 1. Nowhere is the toll of rhino poaching more acute than in Southern Africa, where South Africa is home to an overwhelming majority of the global rhino poaching incidents, followed by Namibia and Zimbabwe.

The South African Police Service (SAPS) releases statistics annually on 25 major crime types (including murder, armed robbery and carjacking), and an accompanying report with more detail. The SAPS 2015/2016 annual report states that there were 217 cases of ‘organised crime’ filed in the country, the large majority of which were drug related. With respect to wildlife crime, 30 people were reported to have been arrested for rhino poaching, and six rhino horns and R5 million were reportedly confiscated.

By contrast, the South African Department of Environmental Affairs releases quarterly statistics on rhino poaching and occasionally on elephant poaching. It reported that 1 175 and 1 054 rhinos were poached in South Africa in 2016 and 2015, respectively, and 22 and 46 elephants were poached in Kruger Park in 2015 and 2016, respectively.

Data on seizures of rhino horn, as shown in Figure 2, indicate that most seizures have occurred in or have involved South Africa (e.g. as a point of transit or destination), followed by Vietnam, China and Mozambique. Figure 2 also shows that South Africa and China have the highest number of seizures in country, while Vietnam is the country most implicated in seizures in other countries.
Poaching and seizure data make up the bulk of available statistics on organised wildlife crime, but have a number of limitations. First, poaching is just one point along the crime spectrum. While such data does provide us with a measure of the scale of the challenge, they provide little insight into the nature of actors, drivers and prices along the supply chain.

These data are also typically biased towards rhino and elephant, while the poaching of other species such as abalone, big cat and pangolin are not well accounted for in official statistics.

Poaching and seizure data make up the bulk of available statistics on organised wildlife crime

Second, seizure data (as used in Figure 2) can be complicated, as they can tell us a number of things. Data indicates both the presence of trafficking in a given country and tells us something about that country’s policing and customs control.

Take a hypothetical example of two countries that experience the same level of wildlife crime. If one country implements policies that result in a significantly higher number of seizures, that could be construed as that country having a more severe poaching problem, when in reality that increase might indicate a more effective mechanism for capturing the flow of illicit goods. So, a higher number of seizures could suggest a higher level of policing capacity, rather than indicating the size of the problem.

Seizures are just one element of effective law enforcement policy and should be followed with further investigation, prosecutions and convictions before a law enforcement response may be considered as robust.16

Despite the limitations of seizure data, the United Nations Office for Drugs and Crime (UNODC) relies on them as the ‘best indicator of wildlife crime internationally,’ because they provide information on transit routes and smugglers packing techniques, among others.17 The total volume of seized wildlife products in a country or region can also be subtracted from reported volumes of products harvested from poaching incidents to give a sense of how much of a given product goes undetected. Between 2010 and June 2017, at least 2 149 rhino horns, weighing more than five tonnes, were seized by law enforcement agencies globally. But an estimated 37 tonnes of horn had been harvested from the 7 246 rhinos recorded to have been killed by poachers from 2010 to 2016.18

The quality and availability of national police and official data in Africa are, however, restricted by resource limitations and other challenges, such as corruption.

For example, in the context of wider corruption scandals across many government institutions in South Africa, the SAPS has been criticised by independent watchdog institutions for not appointing individuals with the expertise, background and integrity required to leadership positions, and the hollowing out of its investigative capacity.19 This poses serious questions about the reliability of wildlife crime data in South Africa. Similar problems exist throughout the continent.

Qualitative and in-depth studies

Between the poaching and harvesting stage, animal products pass through a number of intermediaries and transit points, yet little is recorded about these stages by official sources. An individual seizure incident can reveal information about the ports and cities on the trafficking route and smugglers’ packaging techniques, but not all countries routinely collect such information.20

Purposeful research studies, or the more in-depth, qualitative studies by academics and non-governmental organisations (NGOs), are some of the most valuable resources for developing a rounded picture of the wildlife crime spectrum.

There are hundreds of conservation groups, international organisations and grassroots environmental NGOs focused on wildlife crime in Africa. These groups are already leading qualitative research into the actors involved, their tactics and trafficking routes, and can help fill in the gaps on the stages between poaching and sales on the black market. However, this research is generally not coordinated across countries or even regions and is not aggregated in any easily accessible way.

Similarly, there is a lack of publically available information on the actors involved in wildlife crime, including their vertical integration or intersection with different actors and stages within a given supply chain.
(i.e. the rhino horn trade) and horizontal integration or their intersection with other actors at the same level but in different supply chains (i.e. poachers who target both rhino and pangolin). It is broadly understood that the degree of organisation of these actors varies widely, ranging from loosely knit groups to highly structured transnational outfits. The disparity in income between these groups can also be significant. For instance, a rhino poacher in the southern region is said to make anywhere between US$500 and US$20 000 per rhino kill, collecting between 2.5kg and 4kg of horn per rhino. The price paid for rhino horn on the consumer market, however, is said to range from from US$25 000 to US$65 000 per kilogram.21

There is a tendency for wildlife crime analysis to overplay the hierarchy and order of groups and underplay how informal and fluid they can be across the different stages in criminal processes and wildlife products. 22 This may, in part, be due to the definition of transnational organised crime (TOC) as articulated by the United Nations Convention Against Transnational Organized Crime, where groups are defined according to their size and economic incentive, whereby these two factors are interpreted to mean order and sophistication.23

Other approaches to defining the actors that carry out wildlife crime have attempted to provide more nuance to the typology. According to Mara Zimmerman, author of The Black Market for Wildlife: Combating Transnational Organized Crime in the Illegal Wildlife Trade (2003) actors are classified into the following categories: a) small groupings of local farmers who sell illegal contraband for supplemental income, b) mafia-style groups that buy from local groups and sell on to intermediaries and c) international smuggling rings that engage in other forms of organised crime.24

A central issue within these actor-based approaches is the controversial characterisation of poachers as local farmers, or poor and desperate community members. This picture likely over-emphasises their role, and obscures the less visible actors at different points along the chain, such as middlemen and ringleaders that recruit and hire local poachers and farmers.25

Another tendency is to over-play the role of violent actors in wildlife crime, despite limited evidence. For example, in 2013, the Sudanese militia group Janjaweed was alleged to have killed 86 elephants in one week in the Democratic Republic of the Congo.26 The potential for violent groups to use wildlife crimes to fund other criminal activities is important and central to this project, but at least in Southern Africa, white, middle-class South Africans are implicated far more often in poaching incidents. This group of offenders, however, receives far less media attention.27

A recent study of the illicit ivory trade in Tanzania and Mozambique by the Environmental Investigation Agency (EIA) highlighted a highly organised network of ivory smugglers in the Chinese city Shuidong. Through an in-depth investigation, the authors traced a single shipment of 2.3 tonnes of raw ivory from Tanzania, through Mozambique and into China by way of ports in Busan, Hong Kong and Singapore.28 Other independent research into the ivory and abalone markets in South Africa points to overlaps with other types of organised crime, such as the markets for illegal drugs (e.g. Mandrax) and other animal species (e.g. pangolin).29

Such rich research is, however, ad-hoc in nature and often focuses on a specific species or network. This limits how it could be applied to the wider field of study.

The last stage of the wildlife crime process, the consumer market, is also understudied. In this stage, products can be bought online or at restaurants, clothing stores, underground and black markets, traditional medicinal retailers and pet shops. A recent study into the use of the Internet in the illegal trading of ivory, rhino and other products in China provides insight into the wide availability of these products online. It describes how criminals use the Internet at many other points along the crime spectrum, such as to discuss pricing and markets with others in their criminal network.30

**Journalism and the media**

The media can be another source of in-depth investigative reporting and as such plays a role in knowledge generation on organised crime. In fact, media coverage of wildlife crime appears frequently as a source in NGOs’ reporting and in academic literature.

The organisation TRAFFIC (the wildlife trade monitoring network) uses both media monitoring and interviews for its quarterly Bulletin publication. In 2015, it released a special 276-page report on media-reported incidents of wildlife seizures and prosecutions from March 1997 to October 2014.31 This is a rich resource for this time period that includes information on products seized and where they lie on the CITES appendices.
However, the systematic use of media monitoring to inform wildlife crime research in Africa remains largely underused, likely due to the variability of information available across regions, countries and topics. There are various reasons why using media can limit the application of such studies.

First, adequate reporting on organised crime requires sufficient resources and investigative capacity, elements that are often missing from the media houses based in low-income countries in Africa. While foreign media correspondents can bolster weak national capacity, they are often more inclined to cover stories of concern to foreign audiences, such as armed conflict.

Second, due to resource constraints, media coverage also typically respects national boundaries. Thus the majority of journalists in Africa have a remit to cover only domestic affairs. Simon Allison, Africa Editor for the Mail&Guardian, argues that ‘this bias is a serious pitfall in media companies’ ability to sufficiently cover transnational issues such as organised crime on the continent’.32

Third, the media often sensationalises issues. This can colour the reporting of facts and entrench certain myths, like overplaying the hierarchical nature of organised criminal groups. Wildlife crime is a particularly appealing journalistic topic the world over. In Southern Africa, for instance, a bias towards stories and images of large, dead African mammals has emerged. One example is the media obsession and public outrage that followed the killing of Cecil the lion in Zimbabwe by an American private hunter in June 2015, even though the hunt was legal.33

Fourth, the level of independence and political manipulation of the media may also affect its reliability as a source. In Southern Africa, there are a number of media watchdog organisations and close to 100 print media companies, operating in a range of languages, the majority of which are based in South Africa.34,35 Unlike other regions of the continent where radio dominates, print media is the largest section of the media in Southern Africa.36 The quality of investigative journalism may also be higher due to the relative degree of press freedom in the region and the number of globally renowned universities with media and journalism departments.37

Fifth, the large presence of state-owned newspapers in a number of countries, such as Zimbabwe, begs the question of whether state-owned media companies (and their journalists) are disincentivised to report on crime in general, and organised crime in particular. On the other hand, reporting on crime (particularly on seizures and busts by police) could be encouraged, as it may help the government appear more capable. While there is a body of research on the threats journalists in Africa face for speaking out against anti-democratic regimes, significantly less is known about their fear of reprisals for writing on organised crime.38

Systematic use of media monitoring to inform wildlife crime research in Africa remains largely underused

In summary, while official data on wildlife crime provide us with figures for the scale of poaching of certain species and data on reported seizures, they tell us little about the networks, destination markets or associated activities of the wider range of trafficked animals in and from Africa. Further, the over-availability of poaching statistics, particularly on rhinos and elephants, may result in a bias towards the environmental outcomes of wildlife crime, which can limit policy prescriptions related to the harder-to-measure social and economic enabling factors, such as corruption and poverty.

In-depth qualitative interviews can give incredibly detailed accounts of specific activities. Because they are conducted sporadically, they remain limited in how they can be applied more broadly. While media monitoring provides a useful overview of the scale and scope of organised crime, it cannot cover every incident. Moreover, media monitoring remains subject to the journalistic capacities of countries, which vary dramatically in terms of independence and resources. Regardless of country, exclusively using media monitoring to analyse crime incidents means that only a relatively small number of sensational, headline-grabbing wildlife crime stories are covered. In short, media monitoring and in-depth qualitative research must be used in tandem (with supplemental techniques where possible) to gather a more robust sense of the scale, scope, structure and operation of TOC in Africa.
Methodology

This pilot project focused on incidents, or specific instances of crime against protected fauna (animals). These include illegal killing (poaching) and the illicit trade, possession and trafficking of protected species. Canned hunting or incidents of the controlled, legal hunting of wild animals were excluded, as was legal domestic trade in wildlife products.

The approach of the study and the focus on incidents was inspired by some of the leading open-source conflict data projects, notably the Armed Conflict Location and Event Data Project (ACLED) and the Global Terrorism Database (GTD). These projects use media monitoring to create incident-level data on conflict events. ACLED focuses on multiple forms of political violence, while GTD focuses on terrorism incidents.

Relying on platforms such as Nexis.com and BBC Monitoring, these projects employ researchers to source articles and generate data. Taking as a point of departure their focus on event, location and date, this pilot project used the same methodology to study incidents of wildlife crime.

This pilot phase focused on the period 2000–2016. Incident monitoring and data collection was focused on online news media, which included international and local media as the core sources of information for the project.

News articles were retrieved by way of keyword searches on the media monitoring platform Nexis.com, described as a ‘comprehensive collection of news, company, public records, legal, regulatory and industry information’. This platform excludes social media and other non-news websites.

The site employs standards for journalistic credibility that help the project maintain a threshold for quality, but this also limits the breadth of the media coverage. This was evident with the results produced by the search on Angola, for example, for which no domestic media houses are registered with Nexis and therefore only foreign media companies could be used to source incidents on the site in that country.

The crime type categories were derived from the UNODC International Classification of Crime Types for Statistical Purposes, Version 1, and selected based on their relevance to the study of wildlife crime. These include: poaching, trading or possession of protected species within and across national borders, smuggling across national borders, intention to carry out a crime (attempt to commit a crime – meaning that some aspects or preconditions for a crime occurring were fulfilled) and participation in an organised criminal group. Coders were instructed to record one crime type per incident, and if the article described an incident as involving more than one crime, they recorded each separately.

After retrieving and compiling articles, coders read and analysed articles to determine whether they described a discrete incident, or a set of incidents, before recording information. The definition of incident and therefore the criteria for inclusion in the study was if the article contained these three key pieces of information: 1) one of five listed crime types, 2) a geographic location and 3) a date. If included, the coders recorded as much information as provided by the article on these three variables and 24 additional variables into a Google Form (see the appendix for a full list of variables recorded).

With respect to some of the more complicated variables, such as location, the project recorded country where crime occurred and its corresponding sub-national locations such as province, county/state, and town/village each as three different variables. Additionally, each incident was geo-referenced or geo-tagged with longitude and latitude coordinates to allow for mapping. The pilot also recorded (as much as possible) where the product or species originated and its destination country. This was particularly useful in cases of smuggling.

There were two types of actors: assumed perpetrators and responding actors. Of the presumed perpetrators, there was a primary actor that had to be listed (main actor described in the article), and optional secondary actors that were recorded if possible. Responding actor were those that intervened in the incident, such as police or customs officials. The eight actor types were: individual (civilian), police officer, customs official, other government official, business person, group/association/syndicate, local community and unknown.

The pilot used the UN Convention Against Transnational Organised Crime’s definition for transnational organised criminal group: ‘a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious
crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit... 43

By this definition, a criminal act is organised if it is carried out by three or more people and is guided by the intent to gain financial or other benefits. This presents significant challenges for measuring wildlife crime, because one of the biggest hurdles in wildlife crime research is attributing discrete criminal acts (such as poaching) to an organised criminal element, and to ascribe intent with a degree of confidence.

To capture the organisation and transnationality of discrete acts of wildlife crime, a two-part confidence interval was used. This ranked coders’ confidence that incidents could be described as transnational in nature (involving two or more countries) and that they were carried out by groups (three or more individuals).

Incidents described as being perpetrated by three or more actors received a 2 on the organisation variable, whereas incidents carried out by individuals with known links to organised criminal groups, or associated with broader networks were coded 1. Incidents where no degree of organisation was mentioned received a 0.

With the transnationality confidence interval, if two or more countries were described, the coders recorded a 2. If transnationalism was implied by the nature of the crime (e.g. rhino poaching) a 1 was recorded, and if no countries were mentioned in the article and it was not a known transnational crime, a 0 was given.

Findings and results

Between 2000 and 2016, a total of 1,035 incidents were recorded involving at least one of the 10 countries of focus: Angola, Botswana, Namibia, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zimbabwe and Zambia. 44 South Africa hosted the most incidents, followed by Zimbabwe and Namibia. Across the three methods of recording location (incident location, origin of species and destination of species), 30 different countries from four continents were identified.

The names of sources of articles were recorded and all source articles were saved and categorised according to country and year, in separate documents. The results were exported in Excel format and checked and cleaned by the authors. Supplemental searches were performed for country-level qualitative reports to provide further context and verification for the analysis stage. Analysis was carried out by themes and trends by country.
game parks, while smuggling incidents varied from small towns to seaports and airports.

The most common weapons used were firearms (usually hunting rifles). There were, however, a number of cases involving the use of cyanide to poison elephants in Zimbabwe’s Hwange National Park in 2013 (in one mass poisoning of lakes); and 2015 (through the lacing of salt-licks and oranges). A number of ivory smuggling incidents identified in the pilot study between 2013 and 2016 were linked to these cyanide poison incidents.

Of the eight actor types the project analysed, individuals (civilians) were the most frequent primary actor, followed by the groups/associations/syndicates type. The majority of incidents did not note the presence of a secondary actor and fewer than 5% of incidents involved the police, customs official or other governmental official as perpetrating actors. This could reflect gaps in media coverage because we know that corruption is a grave challenge in the region.

The top five commonly illegally possessed, poached, or smuggled illicit wildlife goods in the southern region were (in descending order): rhino horn, elephant tusk, abalone, pangolin, big cat pelts and lion bones. Incidents where more than one species was found in a trading or trafficking description were coded as mixed. The mixed incident type was the third most frequent, after rhino horn and elephant tusk.

The animal product most likely to be associated with an organised group or syndicate was rhino horn, followed by abalone. In 60% of incidents, there was either no mention of organisation, or the article only focused on the actions of one or two actors. In only 30% of total incidents was the association or involvement of an organisation explicitly mentioned.

China, Hong Kong and Vietnam topped the list of non-African destination countries for wildlife products.

The poaching and trading in abalone was most associated with drug trafficking, particularly methamphetamine (known as tik in South Africa). The actors involved, as well as the shipments involving abalone, were more likely than other wildlife products to be found alongside illegal drugs.

State responses varied greatly according to species type and country. The most common responding actor was police at 50%, followed by other government officials - such as anti-poaching units and park rangers – at 40%.

In Mozambique, police were the most common responding actor, while in Zimbabwe it was other government officials. In the majority of incidents, the responding actor was recorded as acting on behalf of a special investigative mission. These were instances where the article mentioned the response being motivated by an anti-poaching mission or special organised crime investigation, which served as a useful indicator of the degree of national prioritisation of wildlife crime and the level of the country’s proactivity.

By and large, incidents did not involve violence towards the primary or secondary actors (poachers, traffickers, etc.)
etc.). However, of the incidents that did, Zimbabwe was the country where violence was most reported.46 Of Zimbabwe’s total incidents, 30% involved violence, compared to 15% in South Africa. Across all countries, in about 10% of incidents, violence resulted in killing of an actor.

The majority of incidents involved the arrest of an actor and seizure of contraband items, and about 30% of all incidents involved some form of litigation. Nationalities of actors were included in reporting 9% of the time, most frequently in South Africa and Zimbabwe. The top nationalities of perpetrators mentioned were South African, Chinese, Zimbabwean and Vietnamese.

The reported market value of different commodities at the time of the crime or seizure were coded and, like the ranges found in the qualitative studies, ranged from US$200 to almost US$1 million per incident. Rhino horn and elephant tusk, unsurprisingly, were associated with some of the higher values.

Africa News was the most widely quoted source across the range of countries. Within South Africa the most dominant sources were the The Mercury, The Herald and The Daily News; while The Herald was the dominant source in Zimbabwe. In terms of international news wires, Xinhua, Agence France-Presse and Associated Press were the most frequent sources and outside of South Africa, the countries with the most foreign press coverage were Zimbabwe, Mozambique and Zambia.

**Discussion**

In line with existent research, results from this pilot suggest an increasing presence of wildlife crime in Southern Africa since 2010, along with the dominance of rhino poaching and the variation of state responses across countries. Further, the results reveal novel and interesting information about incidents and the nature of media coverage of wildlife crime in this region.

The results are consistent with the UNODC World Wildlife Crime Report 2016 in that, across the region, there was a significant rise in poaching-related incidents between 2010 and 2012.47 The findings indicate that rhino horn is often smuggled independently, while other wildlife products, such as abalone, are more frequently trafficked with other illicit goods, such as methamphetamine.

The results also show that rhino horn poaching and smuggling incidents are most commonly carried out by groups/associations/syndicates, compared with incidents involving other species. This is consistent with theories on the highly organised nature of the illicit rhino horn trade.46

This study also revealed interesting and novel information on the nature of incidents, such as the tactics and weapons used by poachers. For instance, the project’s finding into the use of cyanide to poison animals in Hwange National Park in Zimbabwe, which was difficult to uncover in supplemental searches of NGO and government reports, points to the media’s important role as a watchdog of wildlife crime.

Unlike rhino horn, other wildlife products are frequently trafficked with other illicit goods.

It also illustrated where foreign media companies cover wildlife crime more than local media companies, as well as the most popular local media companies reporting on wildlife crime in each country. Such insight into media coverage of wildlife crime in Southern Africa was one of the more interesting pieces of information gleaned from the study.

These results must be interpreted with respect to their verifiability and limitations of the methodology. South Africa’s relatively well-developed and open culture of print media means that far more reliable content is being produced on and from South Africa than any of its neighbours. This is true even though coverage is concentrated in the major cities, and less so in northern provinces, where the majority of recorded poaching incidents have occurred. The inequality of this coverage certainly had implications on the pilot results. Nonetheless, South Africa’s robust media provides evidence that media monitoring can provide more fruitful results in countries with open press.

The type of information gleaned from media is categorically different from national crime statistics and qualitative research. For example, there is a much wider window for interpretation of a crime by the media than by government departments, who must typically follow fixed categories and criterion. Further, smaller media houses in Southern Africa cannot carry out investigations.
to the same extent as organisations such as TRAFFIC or the EIA.

Relying on the media as the core source means that not all poaching incidents are captured in this dataset. Because of this, it is not possible to directly compare official statistics and the incidents reported in results of the pilot. While researchers in the pilot phase were able to find hundreds of articles on wildlife crime incidents (e.g. amount of rhino horn seized, abalone and elephant poachers arrested, etc.), the number of incidents on rhino and elephant poaching, for instance, do not correspond to official statistics.

Only sporadically did articles describe the presence of active organised criminal groups.

While the confidence interval was a useful barometer of how often groups were mentioned, findings suggest that media reports are best used to learn more about the variables associated with the nature of the incidents (i.e. what weapon was used, how many animals were killed and where incident occurred) and less useful in determining whether acts could be classified as organised (according to the definition provided by the UN Convention Against Transnational Organised Crime).

This is largely because media articles offer only a fragmented account of an incident, because journalists and reporters can only provide details available to them at the time of reporting. More information may become available later if the incident attracts significant attention. Court cases of accused poachers or smugglers are a key example of incidents that garner additional media attention, and thus can provide far more information on the actors involved in crimes, such as names, nationalities, links to other forms of crime, prior convictions and links to organised criminal networks.

The types of crime being investigated in this pilot could suffer from a lack of mutual exclusivity, or too much overlap and conflation. An example of this is when an article describes a single actor or set of actors as engaging in poaching and smuggling. Further focusing on crimes instead of on stages of criminal activity may be an overly legal approach for a study focused on organised crime activities and actors. For example, labelling an incident (an alleged crime) a crime before a decision has been reached in court is, in fact, an assumption of guilt.

As such, the pilot phase results are best understood as a point of departure for further research and a means to further refine this methodology, rather than as a definitive measure of the scale of wildlife crime in Southern Africa.

Changes to the methodology

One way of bolstering the sourcing component of the methodology and thus improving results going forward includes exploring additional online press platforms such as PressReader or Google News. Further, monitoring the broader online discussion of wildlife crimes, and including social media sites, would expand the breadth of this study.

In South Africa, an estimated 13 million Facebook accounts were active in 2016 alone, and recent research points to their value in studies of wildlife crime. Other ideas include using web-scraping technologies to broaden Internet searches beyond traditional media, and using automated research, which would decrease possibility for human bias.

Other opportunities for verification, which have not been explored at this stage in the project, include catch and release testing to assess how many times one crime incident is picked up by the media in a given country in a given time period. Another is crosschecking the number of litigation and court cases that the pilot recorded with that of national prosecuting authorities. This effort would require significant research and may involve requests for freedom of information in the country (or countries) in question.

Verifying findings with available pockets of data, such as the perception survey data into travellers’ experiences with inspections and customs officials at borders, will be considered as a way to confirm insights into law enforcement capacity.

Finally, crime type is not the only way to capture the different stages of the wildlife crime process. This project may be better suited to crime stage analysis or crime script analysis, as used in criminology research, to break up the organised crime process into its component stages or phases.

For the next version of this study, a phase-based approach modelled after Lavorgna’s six stages of wildlife crime will be employed to allow for a more detailed description of the activity, and to better capture those instances when activities involve two or more stages.
The stages are: 0) preparatory activities antecedent to the commission of wildlife trafficking, 1) poaching or harvesting of product, 2) intermediate passage through local middlemen or to a domestic market, 3) passage through local transit networks linked to the international market, 4) intermediate passage through local or domestic market in foreign country, 5) distribution of animal, plant or product and 6) activities that are directly consequential or subsequent to the trafficking activity.54

Using this model, coders would be able to select more than one crime stage, which will serve as a useful indicator of how often actors work across different stages of the process. A further motivation for using this approach going forward is that it provides a framework to research organised crimes beyond wildlife incidents, such as the trafficking of illicit drugs or humans, as is planned for the next phases of the project.

Conclusion

The methodology applied in the pilot phase did have limitations, however, the results of this study highlighted some important areas for further research and activism. For instance, if media reports and independently verified reporting differ significantly, there may be a lack of press freedom in the country or a political incentive to avoid certain issues.

While many of this pilot’s results supported existing wildlife crime knowledge, some new insights were gained. One notable result, given the project’s goal of expanding its applicability into other organised criminal activities throughout Africa, is that it identified methodological challenges related to sourcing new data on this specific type of organised crime and similar topics.

Finally, the pilot has underscored the need for better understanding and quantifying the scale of both supply and demand of wildlife goods. There is a strong need for deeper collaboration across police departments, national parks, academic researchers and NGOs to foster data-sharing and bolster verification.

Moreover, there is a need to better understand the core drivers of wildlife trafficking – both on the demand side, as well as the political and economic factors that drive individuals to participate in these organised criminal networks – to provide a richer context for policy discussions and more comprehensive responses to this complex challenge.

Appendix

Pilot phase Google Form questions and variables
1. Country used in the search string
2. Country where crime occurred
3. Province
4. Municipality
5. City/town/village
6. Latitude
7. Longitude
8. Date of crime
9. Date precision
10. Event/crime type
11. Primary actor
12. Secondary actor
13. Responding actor
14. Nationality of primary actor
15. Was responding actor acting on behalf of a special investigative mission or normal policing or customs work?
16. Item/commodity/animal
17. Price in USD
18. Quantity in kg
19. Violence against actors
20. State response against actor (arrest, seizure, injury, killing, etc.)
21. Litigation
22. Confidence interval of organisation
23. Confidence interval of transnationality
24. Country origin of product
25. Country destination of product
26. Source article – media house
27. Source article – title/headline
28. Summary description of incident

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Guns, poison and horns / organised wildlife crime in Southern Africa
Notes

1 Wildlife crime in this project refers only to fauna (animals) and does not cover the illicit trade in trees and plants.


3 The countries covered in the pilot were: Angola, Botswana, Namibia, Lesotho, Malawi, Mozambique, South Africa, Swaziland and Zimbabwe and Zambia.

4 This paper uses the term wildlife crime to refer to fauna, meaning it covers animals. On the value of wildlife crime, the following UNEP report from 2014 states that wildlife crime is the 4th most lucrative form of TOC globally: E McLellan et al, UNEP, Perspectives: Illicit wildlife trafficking: an environmental, economic and social issue. 14 May 2014, http://staging.unep.org/civil-society/Portals/24105/documents/perspectives/ENVIRONMENT%20PAPERS%20DISCUSSION%20No.14%20LATEST%28%29.pdf.


8 Interview with Major General Johan Jooste of SAN Parks. SAN Parks offices, 30 June 2017.


16 The benefits and challenges of using seizure data to understand the scale of different forms of organised crime is explored in greater detail in a forthcoming ENACT paper authored by Fiona Underwood, and may be explored for verification for the next phases of the incident monitoring project.


32 Interview with Simon Allison, 19 June, Johannesburg.


35 While South Africa is home to hundreds of media companies, a recent review of a select number of southern African countries by Media Monitors organisation in 2016, suggests that Malawi has just 13 privately owned newspapers, maintained under two major media houses, and one government news agency. Namibia is said to have 11 state-owned newspapers and 6 privately owned newspapers, while Botswana has 13 privately owned newspapers, 2 government owned newspaper. Zimbabwe has the most government-owned national newspapers at 11, 8 provincial, 1 government owned news agency and 14 privately owned newspapers. Media Monitors, *Southern Africa Media Landscape: Malawi, Namibia, Botswana and Zimbabwe*, 2016, www.mediamonitors.org.zw/wp-content/uploads/2016/12/Southern-Africa-Media-Landscape.pdf.


37 Based on Freedom House scores for media freedom, South Africa classifies as partly free. In fact, it is one of 4 partly free countries in this report’s sample of countries in Africa along with Botswana, Namibia and Mozambique.


41 Determined by searching the media companies registered through the ‘Power Search’ and ‘Advanced search’ for Angola on Nexis.com.


44 The countries selected were based on the UN’s scheme of southern Africa rather than those countries...
in the Southern African Development Community (SADC), mainly due to the limited capacity of the research team.


46 The South African Department of Environmental Affairs does not officially disclose information on killings of poachers so it is difficult to know if the low count for South Africa recorded in the pilot is an underestimate.


48 Ibid.


51 C Hendrix and I Salehean, No News is Good News: Mark and Recapture for Event Data When Reporting Probabilities are Less than One, International Interactions, 41:2, 2015, 392-406.


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About ENACT

ENACT builds knowledge and skills to enhance Africa’s response to transnational organised crime. ENACT analyses how organised crime affects stability, governance, the rule of law and development in Africa, and works to mitigate its impact.

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