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Poaching in Communal and Resettlement Areas in Zimbabwe: A Problem Deeper Than What Meets the Eye

EDGAR MUHOYI[1] AND EARNEST RUNGANO CHINYANGA[2]

Abstract

This study explores poaching in Zimbabwe's communal and resettlement areas, focusing primarily on its causes, impacts and potential solutions. It uses court monitoring data to assess incidents, identify socio-economic factors, evaluate law enforcement effectiveness and propose evidence-based strategies. The research uses a holistic conceptual framework integrating environmental justice, reasoned action and routine activity approaches to develop targeted interventions and promote sustainable resource management. Between 2019 and 2021, there was a significant increase in wildlife crime cases, with elephants being the main target. The conviction rate was 94.29%, indicating effective law enforcement. However, challenges such as gender disparities, foreign national involvement and limited legal representation persist. Offences related to ivory possession increased. Unlawful animal removal remains a concern. High numbers of wildlife crime are concentrated in the provinces of Masvingo, Mashonaland West and Matabeleland North. Poaching in Zimbabwe is a significant issue due to poverty, human-wildlife conflict and subsistence needs. It is also a result of lack of awareness and lenient legal frameworks. To address this, sustainable development, alternative livelihoods and education, are crucial. Urgent action is needed to strengthen law enforcement, enhance community engagement, raise awareness, combat transnational networks, improve wildlife protection laws and

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promote sustainable livelihoods. Engaging local communities is also essential for fostering conservation culture.

Keywords: causes; court monitoring; environmental justice; impacts; reasoned action; routine activity.

INTRODUCTION

Poaching has long been an issue in Zimbabwe and the world at large (Mzembi, 2016; Ngorima *et al.,* 2020; Ndou *et al.,* 2021; Ntuli *et al.,* 2021; Masikati, 2022; Wambua *et al.*, 2018). Stigmatised as theft and animal cruelty or celebrated as rebellion against oppressive laws, poaching is a global concern for wildlife conservation including endangered species (Von Essen *et al.,* 2014).The issue is commonly associated with national parks and protected areas. However, this extends beyond these areas and communal and resettlement areas have been hotspots for poaching activities, given that they depend on natural resources for their livelihoods. Responses to illegal hunting, trapping or poaching of wildlife has led to long-term warfare between anti-poaching units and local poachers in protected areas such as the Kavango Zambezi Transfrontier Conservation Area (KAZA) in Zimbabwe (Wambua *et al.*, 2018). According to African Wildlife Foundation (2020), Zimbabwe is a crucial Southern African country for species richness and endemism, hosting around 175 mammal species, including the critically endangered black and white rhinoceros, wild dog, brown hyena, cheetah, hippopotamus, lion and African elephant. It supports over 650 bird species and 122 fish species. Zimbabwe's elephant population has been declining. The country is also an important range state for large carnivore species, with the wild dog population recovering to 700-750 individuals. This diverse species is not free from illegal trapping, hunting and poaching.

The poaching crisis poses a significant threat to elephants and wildlife resources in Zimbabwe and globally (ZELA, 2024). It is linked to illegal wildlife trade and poses a grave danger to the survival of

the iconic species. The recent poaching incident involving six elephants in the Gwayi-Shangani Conservancy highlights the on-going issue of poaching which has been linked to illegal wildlife trade and crimes worldwide. This incident is reminiscent of a 2013 poisoning incident in Zimbabwe's largest game reserve, Hwange National Park. In addition, Zamasiya *et al.* (2021) observes that subsistence poaching is on the rise and involves various methods, including hunting with dogs, snaring, using torches and burning the forest. These methods, targeting smaller animals, are often illegal and can result in more animals being caught than consumed. The success of these methods depends on the poacher's ingenuity. Zimbabwe reported 1 701 wildlife crime cases between 2019 and 2021, targeting mainly elephants where 8%involved Specially Protected Species, indicating intentional targeting and the remaining 92% involved general wildlife, including forestry, highlighting the widespread impact of poaching activities on various wildlife species, posing a continuous threat to their populations (Wambua *et al*., 2018).

The study seeks to unearth the underlying causes, impacts and potential solutions of poaching in communal and resettlement areas in Zimbabwe, using crime script analysis, particularly using a case of KAZA region. The main aim of the study is to assess poaching in Zimbabwe's communal and resettlement areas by analysing court monitoring data and reports to determine the frequency, scale and distribution of such incidents. The study also seeks to identify factors contributing to poaching in communal and resettlement areas through analysing court cases and reports, focusing on socio-economic conditions, poverty levels, lack of alternative livelihood options and other driving factors. By analysing court monitoring and reports, the study seeks to evaluate the efficacy of law enforcement in combating poaching in communal and resettlement areas through assessing conviction rates. Lastly, the study seeks to proffer evidence-based strategies and interventions to combat poaching based on court monitoring data and other reports. The rest of the study is organised with the second section presenting a conceptual

framework, followed by the methodology used in the study. The methodology is followed by the findings using a case of the KAZA region, root causes of poaching and the discussion of the findings and conclusion and recommendations.

CONCEPTUAL FRAMEWORK

Poaching is a multi-faceted phenomenon with various definitions in different contexts (Moreto and Lemieux, 2015). Ntuli *et al*. (2021) observe that poaching is generally viewed as the illegal practice of entering another's property to hunt without permission or steal game. According to Rizzolo *et al*. (2017), poaching refers to both the illegal killing of otherwise protected animals and the unlawful exploitation of wildlife. Similarly, Moreto and Lemieux (2015) observe that poaching encompasses several interrelated activities such as hunting, trapping and killing of animals. Other scholars have broadly defined poaching as "any act that intentionally contravenes the laws and regulations established to protect wild, renewable resources" (Muth and Bowe, 1998:11). Typically, the international attention is given to trophy poaching of large, endangered animals (tiger, rhino and elephant). However, the term applies to all forms of hunting or trapping or collecting, outlawed by local legislation[3] (Lemieux, 2020). Therefore, the definition adopted in this study considers poaching as an illegal taking of wildlife, be it animals, fish or plant (Moreto and Lemieux, 2015; Lemieux, 2020; Ntuli *et al*., 2021).

An integrated conceptual framework defining this study in understanding poaching in communal and resettlement areas is a combination of the Environmental Justice, Reasoned Action Approach and Routine Activity Approach as presented in Figure 1. Environmental justice serves as the foundation of the conceptual framework. It emphasizes unequal distribution of environmental benefits and burdens, especially among the marginalised communities in communal and resettlement areas (Ali, 2006).

Environmental justice may intersect with broader social justice issues, challenging socio-political and economic institutional structures in societies and the world as a whole (*ibid.*). Thus, environmental justice contributes to the integrated framework by identifying social and economic disparities that lead to wildlife poaching. The inclusion of the environmental justice concept highlights the need of addressing social and economic disparities that lead to poaching.

The Reasoned Action Approach is a model for predicting, explaining and changing human behaviour and can integrate many of the main factors underlying intentions to poach wildlife (Arias, 2015; Carter *et al.*, 2017). The rationale is that behavioural intentions are influenced by behavioural, normative and control beliefs. Thus, in the case of poaching, behavioural beliefs are associated with costs and benefits of noncompliance with anti-poaching rules. Thus, the concept contributes to the integrated conceptual framework through identifying individual-level determinants of poaching behaviours. In addition, the Routine Activity Approach has been used in literature and previous studies in understanding poaching (Eliason, 2012; Moreto, 2019) which examine situational and environmental conditions facilitating poaching. The approach is grounded on the idea that poaching is a function of three interacting components, namely motivated would-be poachers, suitable targets and lack of guardianship. This approach offers valuable insights into situational factors influencing poaching by analysing the availability of wildlife resources, target vulnerability and the effectiveness of conservation measures.

Understanding the extent of poaching in communal and resettlement areas in Zimbabwe needs an integrated approach combining the insights from the three concepts described above. The integrated conceptual framework helps in understanding social, economic, individual and environmental factors that lead to wildlife poaching, be it plants, fish or animals. With an integrated approach, it gives a

holistic view of the profundity of the problem, recognising the complexities and interdependencies of the two factors in Zimbabwe. By integrating the three concepts, targeted interventions can be crafted to address the root causes of wildlife poaching and promote sustainable resource management.

LITERATURE REVIEW

The literature on poaching in communal lands is complex and multifaceted, involving interactions between wildlife and local livelihoods (Lavadinović *et al.,* 2021). It emphasizes the need for in-depth analysis and the role of cultural norms and legal frameworks in deterring poaching activities. Lavadinović *et al*. (*ibid.*) conducted a systematic literature review to gain a deeper understanding of poaching. The majority of articles were carried out in Africa and most studies were limited to elephants, rhinos, wolves and bears. They found in the systematic literature review that even though studies identified the drivers of poaching activities, more than half of the articles reviewed did not attempt to provide a deeper understanding of this phenomenon. Their understanding of poaching is limited to and does not go beyond environmental impact of illegal hunting. Thus, Lavadinović *et al*. (*ibid.*) observe that poaching lacks depth beyond environmental impacts, overlooking broader issues in communal lands. Thus, the complexity of poaching requires a multi-disciplinary approach for comprehensive understanding. This implies that global scientific knowledge on poaching was/is biased.

Carter *et al*. (2017) developed a social-ecological system framework that ties together many of the drivers of wildlife poaching, particularly large carnivore. The key attribute of the model is that it integrates various factors related to both human motivations and animal vulnerability into feedbacks. Findings reveal that emotions, cognitions and livelihoods, among other attributes, work together to influence motivations to engage in poaching. In addition, space use, behaviours and life-history traits and other attributes of animals, interact to influence their vulnerability to poaching. In addition,

Carter *et al*. (*ibid*.) argue that social, economic and ecological conditions interact together and influence the behaviour of individual actors, humans and wildlife.

Viollaz *et al*. (2021) use crime script analysis to understand the extent of wildlife poaching in Vietnam. Crime script analysis is used in the case of snare poaching. The main aim of the study is to enhance an understanding on the opportunity structure underlying snare poaching to design the best community-based crime prevention interventions. They analyse crime scripts for three types of poachers across nine stages of the poaching process using expert-based elicitation with 13 workshop participants. They reveal two types of hunters-subsistence hunters, with no sophisticated snaring technology who hunt seasonally in their free time. The second category are professional hunters who use snare hunting as their primary source of livelihood. They categorise them further as inside and outside professional hunters. From crime script analysis, five commonalities are identified across hunter typologies. Firstly, illegal hunters prepared for hunting trips by assembling supplies and gathering intelligence on the best places to hunt, with sources varying from rangers to self. Secondly, they enter protected areas and build camps with varying entry tactics from time to time and place to place. Third, they laid snares and checked them after several days. Fourth they removed caught wildlife and, lastly, they processed and consumed, traded or sold the wildlife, depending on the volume and hunter type.

Wong and Lemieux (2021) found that key drivers of wild boar poaching were for meat purposes and hunting took place in both protected and non-protected areas. The study reveals that the majority of poachers prefer use of homemade traps and not weapons when hunting. The main trap used were electricity traps to shock animals. Another motivation for wild boar poaching was crop damage, which prompt local community members to retaliate by killing them.

Human-wildlife conflicts have been one of the key drivers of poaching (Moreto, 2019; Mekonen, 2020; Viollaz *et al*., 2021). These conflicts arise due to several factors, including human settlement encroachment, agricultural expansion, overgrazing and habitat destruction (Moreto, 2019). The conflicts lead to increased poaching activities and retaliatory killings where people resort to harming wildlife in response to perceived threats to their safety or livelihoods. Moreto (2019) attempts to understand the situational factors that link human-wildlife conflict, retaliatory killings and poaching in Uganda using a situational precipitor framework. The study reveals that human-wildlife conflicts can prompt, pressure and permit and provoke individuals to engage in both poaching and retaliatory killings. A study by Viollaz *et al*. (2021) in South Africa reveals four main issues contributing to human-leopard conflict killings: slow government response, ineffectiveness, inadequate resources, lack of laws and strong distrust, making it difficult to address the issue.

Poverty is also considered a key contributor to poaching because poor people hunt illegally to satisfy their basic needs (Duffy *et al*., 2016). It is imperative to observe that poverty is not a singular category and hence there is to understand to what constitutes poverty. The study adopted a definition by Sen (1999), which posited that poverty consists of lack of power, voice, prestige and an inability to define one's future and day-to-day activities that are difficult to measure in quantifiable terms. Several studies reveal that individuals are motivated to engage in poaching activities because for subsistence and personal use due to poverty (Moreto and Lemieux, 2015; Leberatto, 2016; Lunstrum & Givá, 2020). A study by Magqina *et al*. (2020) on possible impacts of artisanal and recreational fisheries in Lake Kariba, Zimbabwe, shows that the average income in all fishing camps was below the poverty datum line, indicating that all fishers were poor. This likely pushes fishers to overfishing and engage in fish poaching to survive. Increased fish poaching in this case is

detrimental to predator fishes (tiger) thereby leading to declining fish stocks.

Also related to poverty is rising unemployment as one of the key contributors of poaching activities (Ndou *et al.*, 2021). Illegal hunting in various countries is linked to poverty and limited labour market opportunities, leaving individuals with limited alternatives to wildlife crime. A study by Ndou *et al*. (*ibid.*) focuses on poaching of *encephalartostransvenosus* in South Africa and reveals that unemployment was the leading cause of poaching. A study by Naro *et al*. (2020) in Namibia found that most informants attribute the rise in syndicated poaching to high unemployment rates in rural conservancies, with dissatisfaction with the conservancy benefit distribution system being a significant societal driver.

STUDIES ON POACHING IN ZIMBABWE

Ntuli *et al*. (2021) sought to understand the drivers of subsistence poaching in the Great Limpopo Trans-frontier Conservation Area that spans across Mozambique, Zimbabwe and South Africa. The study argues that understanding of individual and community level factors that lead to subsistence is limited, as much of the literature focus on commercial poaching. Focusing Mainly on reported cases of subsistence poaching in the community and previous hunting by individuals, they report that poaching incidences were high in communities with a large proportion of young men, a large number of wildlife and experiencing wildlife conflict. In communities where people trust each other, respect institutions, perception that management of the park is good and view wildlife as an important asset, the study found that low levels of subsistence poaching were recorded. Key insights from Ntuli *et al*. (2021)'s study are that age, trust, gender, group size, local institutions, resource quality and perceptions about park management are key factors influencing subsistence poaching in communal areas in Zimbabwe.

Human-wildlife conflicts in Zimbabwe increases poaching incidents in communal areas (Mzembi, 2016). This owes to unmet benefits, risking wildlife sustainability and conservation efforts. Mzembi (*ibid.*) conducted a study to understand the role played by human wildlife conflicts in conservation management using Victoria Falls as a case study. Findings reveal the existence of power dynamic imbalances that forestall possible cooperation between local people and conservation management. Thus, according to Mzembi (*ibid.*), local communities with rights not being realised in terms of deriving benefits, have made them accessories to exacerbating human-wildlife conflicts. As a result, poaching has increased alarmingly, thereby leading to unsustainable wildlife management. In support, a study by Marecha (2017) highlights that poaching in communal areas in Zimbabwe is due to perceived injustices due to human-wildlife conflicts. Wildlife conservation is prioritised over human livelihoods, that leading to a heightened sense of injustice. This raises issues of environmental justice, contributing to poaching and killing of wildlife using snares. Marecha (*ibid.*) observes that human-wildlife conflicts have escalated over the years owing to population growth, leading to expansion of settlements in areas close to national parks. People feel that wild animals are given first priority over them due to laws governing protection of wildlife.

In support of Mzembi (2016), Masikati (2022) observes that land ownership conflicts are leading to increased poaching in communal areas because human-wildlife conflicts. Masikati (*ibid.*) examines the implications in Zimbabwe as a factor contributing to human-wildlife conflict and associated implications for Nyanaga National Park. The study was motivated by the fact that most previous studies had neglected the issue of land ownership. According to the study by Masikati (*ibid.*), political land ownership contributes to the destruction of wildlife in Nyanga, as people are forced to crowd in communal areas. The move to to these areas contributed to new forms of conflicts as wildlife and humans try to understand each other. For instance, park boundaries cut off people from their

ancestral places of worship. Insights from the unjust land distribution in 1930 indicate that animals occupied 27%, whites 51% and blacks got 22% of the total land in Zimbabwe. Thus, unjust land redistribution triggered poaching as a form of retaliation that negatively impacts efforts to conserve wildlife.

Another factor contributing to increased levels of poaching in communal areas is due to crop destruction and lack of financial gain from elephants (Ngorima *et al.*, 2020; Wong and Lemieux, 2021). Ngorima *et al.* (2020) investigates how the spread of costs and benefits associated with elephants and ownership rights influenced community attitudes to support anti-poaching. Using a survey of 90 community members in Kavango Zambezi Transfrontier Conservation Area, a key finding is that 92% of the respondents were not willing to engage in conservation activities and the majority (54%) identified meat from elephants as an essential benefit for their livelihoods. Respondents noted that the most significant cost was crop destruction that influenced their perceptions of elephants, thereby reducing their willingness to engage in conservation efforts. In conclusion, the literature on poaching in communal lands is complex and multi-faceted, involving interactions between wildlife and local livelihoods. It emphasizes the need for in-depth analysis and the role of cultural norms and legal frameworks in deterring poaching activities. The societal dimensions are also highlighted, necessitating comprehensive strategies for effective conservation. Therefore, comprehensive strategies are needed to address this complex issue.

RESEARCH METHODOLOGY

To understand the extent of the poaching problem in Zimbabwe's communal and resettlement areas, the study conducted a desktop review and collected secondary data from various reports on poaching statistics. Thus, the study assesses the species targeted, extent and geographical distribution of poaching using reliable data from various sources, focusing primarily on court cases related to poaching in Zimbabwe. In the selection of sources, the study

prioritises those known for their rigorous data collection methods, reliable reporting and field expertise. The reports used comprised mainly government reports, media (news) and NGOs actively involved in wildlife conservation such as Space for Giants (SFG) and Speak out for Animals (SOFA). SOFA published baseline surveys and reports on poaching incidents, including court cases on various wildlife crimes such as fish and fishing-related offences, hunting and trapping of animal related offences, unlawful removal of animals and other wildlife poaching offences (Wambua *et al.*, 2018). The reports provide data from wildlife crime cases and data collected in 52 Zimbabwean courts between 2015 and 2021 across the 10 provinces. These reports provide a wealth of information that contributes to a comprehensive understanding of poaching in communal and resettlement areas in the country (Wong *et al.*, 2021).

The study also collected data from various media reports. The reports comprised mainly news reports from various organisations on crime such as, *The Herald* and the Zimbabwe Environmental Law Association (ZELA), among others. Media reports provide real-time information on poaching incidents, socio-political context and public perception surrounding poaching. Poaching reports are essential for understanding the scale and patterns of poaching in Zimbabwe's communal and resettlement areas. They provide quantitative data, allowing researchers to assess the frequency and prevalence of poaching activities, identify hotspots and develop conservation strategies (*ibid.*). Geographical distribution of information allows for spatial analysis and mapping of incidents, which helps in visualising spatial patterns and understanding of factors contributing to high poaching rates in Zimbabwe. Collected reports were systematically analysed to extract relevant information on poaching incidents. Descriptive statistics and trend analysis were used to understand the patterns, changes over time and the extent of poaching in the studied communal and resettlement areas of Zimbabwe.

FINDINGS

FINDINGS ON COURT MONITORING USING A CASE STUDY OF THE KAZA REGION

NUMBER OF CASES

The study relied on a case study by SFG who conducted a survey on Wildlife Crime Court Monitoring Report for the KAZA region, Zimbabwe, between January 2019 and December 2021 and the baseline survey conducted by the same institution between 2015 and 2018.

Between January 2019 and December 2021, Zimbabwe's communal lands saw a significant number of wildlife crime cases, totalling 1 701 cases. Most of these cases involved elephants, a symbol of the deliberate targeting of endangered animals. Additionally, 8% of the cases involved Specially Protected Species, indicating the intentional targeting of highly regulated and threatened species. The remaining 92% of cases involved general wildlife, including forestry, highlighting the widespread impact of poaching activities on a wide range of wildlife species. In the same period, Zimbabwe experienced a 393% increase in monitored cases compared to 2015-2018, indicating a persistent issue of wildlife crimes in the region. Poaching activities have been increasing, posing a continuous threat to wildlife populations. Out of 1 701 monitored cases, 1 428 were completed, indicating legal processes were initiated and progressed. This indicates that authorities have acted and followed through with investigations and legal proceedings, with a significant portion of cases reaching resolution, indicating a commitment to combating poaching and protecting wildlife.

The 2019-2021 period saw a high conviction rate of 94.29%, indicating effective law enforcement efforts. This increase reflects improved capacity and training of investigating officers and prosecutors, leading to stronger cases and more successful outcomes in the courts. Most accused individuals were male, constituting 95.2% of the total

accused individuals, indicating a concerning trend in poaching activities. Furthermore, 7.71% of the accused individuals were foreign nationals, suggesting potential involvement of transnational criminal networks in wildlife trafficking. The presence of nationals from neighbouring countries like Zambia, Mozambique and Congo also suggests cross-border wildlife crime.

Further, the report reveals a severe issue of poaching in Zimbabwe's communal lands, with 1 701 monitored cases, indicating the extent of wildlife crimes. The targeted wildlife, including elephants and Specially Protected Species, demonstrates deliberate targeting. The increase in monitored cases over the years indicates a growing threat to wildlife populations, requiring immediate attention and action. This indicates a widespread threat to the country's wildlife populations. Furthermore, law enforcement has achieved a high conviction rate of 94.29% and completed numerous cases, but there are areas that need further attention. The gender disparity in wildlife crimes, with the majority being male, indicates an imbalanced participation. The involvement of foreign nationals in 7.71% of cases suggests transnational criminal networks and the lack of legal representation in 12.7% of cases indicates a gap in access to legal assistance.

POACHING OFFENCES IN REGISTERED CASES USING THE CASE OF KAZA REGION

OFFENSES RELATED TO IVORY POSSESSION

The findings reveal evidence of poaching in communal lands being a multi-faceted problem with far-reaching implications. Poaching statistics for the KAZA region indicated an increase in offences related to possession of ivory, 26 in 2019 to 32 in 2021 representing a 23.1% increase. This highlights the persistence of illegal ivory trade and the targeting of elephants for their tusks. Thus, ivory poaching is a particularly grave concern given that it threatens the survival of already endangered elephants. The rise in registered cases of illegal ivory trade suggests that, despite efforts to combat it, the issue

persists, likely involving illegal killing of elephants and ivory trafficking, contributing to the decline in elephant populations.

OFFENSES RELATED TO FISH AND FISHING

The number of registered illegal fishing cases has decreased by 70.4%, from 250 in 2019 to 74 in 2021, indicating improvements in addressing illegal activities. This could be due to increased law enforcement efforts, awareness and sustainable fishing practices. However, fish and fishing-related offenses still pose challenges, including overfishing, prohibited methods and fishing in protected areas. Further efforts are needed to reduce illegal fishing and promote sustainable practices that safeguard fish populations.

HUNTING AND TRAPPING OF ANIMALS

The number of animal hunting and trapping crimes registered in courts decreased by 66.8% from 340 cases in 2019 to 113 in 2021.The number of illegal hunting and trapping activities has decreased, possibly due to improved enforcement, increased penalties and increased wildlife conservation awareness. However, this category still has the highest number of cases, highlighting the persistent threats to wildlife populations. Strengthening conservation efforts, implementing stricter regulations and enhancing community engagement are crucial for reducing these offences and protecting wildlife.

UNLAWFUL REMOVAL OF ANIMALS

The secondary findings reveal that unlawful removal of animals decreased to 40 cases in 2021 from 82 cases registered in 2019 in the KAZA region. The number of illegal animal transportation and removal cases has decreased, possibly due to improved surveillance, public awareness and stronger enforcement measures. However, this category still recorded the third-highest number of cases in all years, highlighting the ongoing challenge of wildlife trafficking. The sophisticated criminal networks and high profitability of the illegal trade, driven by demand for exotic pets, traditional medicine

ingredients and rare animal products, continue to fuel the problem. Overall, most registered cases in Zimbabwe involve offences related to hunting, trapping, fishing and unlawful animal removal, directly impacting Zimbabwe's wildlife and threatening species survival. The complex legal framework in place, including the Parks and Wildlife Act, Trapping of Animals Act and Statutory Instrument 71 of 2020, addresses poaching and wildlife crime. However, challenges persist, emphasizing the need for further strengthening and enforcement of these measures. High conviction rates in various offence categories indicate the effectiveness of the legal system in prosecuting wildlife crimes. The lower conviction rate for ivory offences suggests potential difficulties due to investigation complexity and organised criminal networks.

Spatial distribution analysis in the KAZA region

The data from SFG shows a significant increase of about 51% in wildlife crime cases registered for the period 2015-2018, and the subsequent years 2019-2021. This indicates the growing problem of poaching and illegal poaching of wildlife in Zimbabwe. With regards to regional distribution of cases, the findings shows that Masvingo (93), Mashonaland West (148) and Matabeleland North (100) provinces had the highest number of wildlife crime cases, related primarily to fish and fishing offences, indicating higher levels of poaching and illegal wildlife activities. The provinces of Masvingo (304), Matabeleland South (124) and Matabeleland North (115) saw the highest number of cases related to hunting and trapping of animals, while Harare (34), Matabeleland North (16) and Bulawayo (12) had the highest number of cases of ivory possession. Mashonaland East (39), Harare (27) and Manicaland (26) also had the highest number of cases related to Specially Protected Species (SPS).

Easy access to protected areas and ports of entry

The findings reveal that proximity of courts to protected areas, ports of entry and wildlife corridors play a key role in recording and execution of poaching crimes. Thus, it was found that courts near

protected areas such as Chiredzi and Kariba, recorded higher cases of poaching and illegal wildlife activities. These areas have diverse and abundant wildlife populations, including endangered species, making them attractive targets for poachers. They may exploit these areas for illegal activities, such as killing animals for valuable parts like ivory or rhino horn. Ports of entry also present opportunities for wildlife trafficking, as they serve as entry and exit points for smuggling wildlife products. Wildlife criminals may attempt to transport illegally acquired wildlife items across borders or through these ports, exploiting transportation infrastructure and potential security gaps.

POACHING NEAR FARM AREAS

Courts near farm areas, like Mvuma, Chivi, Murambinda and Lupane, have reported fewer wildlife crime cases compared to protected areas. Farms, often cleared for agriculture, can lead to reduced wildlife populations and habitat fragmentation. Poachers often target protected areas and wildlife corridors with diverse populations. The concentration of poaching activities in regions with better access to wildlife habitats is due to their suitable environments for various species and stricter regulations, making them more attractive targets for illegal activities.

SPECIES ANALYSIS FINDINGS IN THE KAZA REGION

During the 2015-2018 monitoring period, 35% of cases involved missing data on species, with bush meat cases (25%), with kudus, impalas and buffalos being the most common species. Illegal fishing was the second most common offence, followed by elephant-related cases. Notable cases included large quantities of bush meat and fish. In the 2019-2021 monitoring period, over 50 species were involved, with buffalo, giraffe, zebra and antelope being the most affected. Specially Protected Species made up 155 cases, while unspecified species accounted for 22.76% of the cases. Lack of comprehensive data on species involved indicates potential gaps in understanding poaching activities and the species affected. Bushmeat poaching

poses a threat to various wildlife species, while illegal fishing cases highlight the issue of poaching extending beyond land-based wildlife to aquatic resources. The decline in fish-related cases may be attributed to stricter law enforcement or the impact of COVID-19 lockdowns in 2021 which reduced criminal activities.

Zimbabwe's elephant population has become a significant target for wildlife crime syndicates, leading to a surge in poaching. The country's abundance of elephants offers environmental, ecological, economic and social benefits. However, the country has registered 85 elephant-related cases from 2019 to 2021, indicating a growing concern for elephant conservation. The recent poaching incident in Gwayi-Shangani Conservancy, involving six elephants, is reminiscent of a 2013 case in Hwange National Park where over 80 elephants were poisoned. The high demand for ivory has made these majestic animals particularly vulnerable and the increasing number of elephant-related cases suggests an ongoing threat to these endangered animals. The incident highlights the persistent activities of poaching within Zimbabwe and calls for immediate attention.

Pangolin cases remained steady from 2019 to 2020 but declined in 2021. Pangolins are highly endangered and heavily targeted for their scales that are used in traditional medicine and meat in some cultures. The decline in pangolin cases in 2021 could be influenced by factors such as intensified law enforcement efforts or the impact of COVID-19 lockdowns which may have disrupted illegal wildlife trade networks. Overall, the ongoing threats to pangolin conservation are significant concerns for the future of these majestic animals.

Overall, statistics show that between 2019 and 2021, poaching cases in Zimbabwe affected a diverse range of wildlife, including both endangered and non-endangered species. Buffalo, giraffe, zebra and antelope were the most affected, followed by fish. This demonstrates that poaching is not limited to a few species but affects a broad

range of wildlife in Zimbabwe. This diversity highlights the need for comprehensive conservation efforts to protect wildlife in Zimbabwe.

ROOT CAUSES OF POACHING IN ZIMBABWE

SUBSISTENCE POACHING AND HUMAN-WILDLIFE CONFLICT

Findings from African Wild Foundation, through its Zimbabwe Country Strategy (2020-2030) reveals that poaching has escalated in Zimbabwe, with poisoning becoming a key technique. This has led to human-elephant conflicts and concerns about the impact on other biodiversity. Large carnivores, such as lions and cheetahs, are also at risk due to negative perceptions and retaliatory killings. Land-use changes have led to declining cheetah populations and carnivores, particularly wild dogs, are being persecuted. Zimbabwe's rhinos are also at risk due to poaching and trafficking. Freshwater megafauna are also at risk due to human-hippo conflicts, leading to poor perceptions and persecutions. Increased poaching, including poaching of roan antelope, is exacerbated by deteriorating socio-economic conditions. Studies by Moreto and Lemieux (2015); Leberatto (2016) and Lunstrum and Givá (2020) highlight similar results that individuals are motivated to engage in poaching activities because of subsistence and personal use due to poverty.

The study finds from Zamasiya (2021) that animals are causing farmers to harvest sorghum and millet before reaching the moisture content level, worried about destruction by wildlife. Subsistence poaching is a major cause of human-wildlife conflict in the Zambezi Valley. Thus, subsistence poaching is driven by household consumption and often targets wildlife like warthogs, impala, kudu and duiker. It can also be for rare animal products like skin, fur, feathers, bones and teeth that are used for religious and traditional rituals, such as performing rituals with pythons and pangolins.

Another finding is that subsistence poaching in the Zambezi Valley involves various methods, including hunting with dogs, snaring, using

torches and burning the forest. Dog poaching targets smaller animals like warthog, hare, duiker and impala, usually during the day to avoid detection by parks rangers. Snaring is the most prevalent method, using plain wires to set traps and entrap animals' legs or necks. Bright torches are used at night to flash target animals in fields or bushes during the crop growing season, depending on the poacher's ingenuity. Burning the forest or wildlife habitat is another non-selective method, using spears, axes, catapults and dogs to strike wildlife as they flee. The success of these illegal hunting tactics depends on community cohesion and failing to report each other to wildlife management authorities.

POVERTY

The country has faced significant economic challenges in the past two decades, leading to the extraction of resources like firewood, charcoal, timber, wildlife and clearing forests for farming. This unsustainable use of natural resources is endangering the country's sustainable economic development. With 68% of the population living in poverty, the rural population has greater need for direct exploitation of natural resources, highlighting the urgent need for sustainable solutions. Since 1995, income poverty, defined as the proportion of individuals below the total consumption poverty line, has remained high and consistent at above 70% (ZIMSTAT, 2023).

Statistics from the Zimbabwe National Statistics Agency (ZIMSTAT) shows that extreme (food) poverty rate is high in rural areas compared to urban areas. Poverty rate has been high (more than 40%) since 2017 to January 2023. This indicates that rural populations live in extreme poverty compared to their urban counterparts, one of the key driving forces towards poaching activities.

POVERTY AND POACHING SYNDICATES

Poaching syndicates in Zimbabwe are trapping vulnerable villagers due to high poverty and unemployment and are exploiting wildlife for ivory. These syndicates recruit villagers in animal corridors to kill

animals like elephants for their ivory and find markets on the streets. Police in areas like Hwange, Kamativi and Victoria Falls, have arrested people selling ivory on the streets. Conservationists claim most of the arrested locals are exploited by the syndicates, including some run by Zambian nationals and often lack knowledge about wildlife crimes. Conservationists argue that the masterminds of the poaching syndicates targeting the region's game reserves are rarely accounted for by law enforcement agents. The poor villagers are allegedly promised easy money or misled into killing elephants that destroy their crops.

Interviews conducted in 2022 by Dlamini in 2022 indicate that most people in the Kamativi area are not aware that poaching is a serious crime, and they are easily lured by poaching syndicates due to poverty. In an interview, the village head in Kamativi noted that,

> *"there is no reward for poaching for the ordinary person, but you find that, due to poverty, people end up being forced to engage in such illegal activities".*

This significantly shows that poaching incidents are rising because of a combination of lack of awareness and poverty in Kamativi. Some Tsholotsho villagers were arrested for accommodating poachers and aiding them in elephant killing through cyanide poisoning. However, those who profited from ivory were never arrested, as was the case with villagers from the Gwayi area. Zimparks officials reveal that villagers are misled into believing that dealing in ivory is a lucrative business, as urban people offer high prices, forcing villagers to hunt for it through killing elephants or from those that die of natural causes. Misunderstandings can lead to law enforcement agents being tipping off and arresting the villagers.

Findings from the interview conducted by Dlamini (*ibid.*) with Bhejane Trust, a non-profit group in Zimbabwe, reveals that poverty is driving villagers to commit wildlife crimes, with ivory dealers exploiting this. They reveal that poaching cases have decreased in national parks, with no elephant poaching in Hwange National Park

since 2020. However, due to high security, illegal ivory dealers secretly collaborate with villagers and foreigners, such as Zambians, to poach stray elephants. Trevor Lane, the founder of Bhejane Trust, argues that villagers are unaware of the exact sender and end up paying the price for their actions (*ibid.*).

Another interview conducted by Dlamini (*ibid.*) with a civil society organisation highlights the sophisticated nature of wildlife product trade, revealing that villagers caught selling ivory are working for powerful forces. The ivory market in Asian countries requires sophisticated criminals to transport consignments which ordinary villagers cannot do on their own. The civil society organisation suspects that these villagers are given strict rules to follow in case of problems. Due to unemployment, economic hardships and lack of benefits from wildlife, villagers often resort to such crimes due to unemployment and economic hardships, supporting the argument that poverty is a significant contributor of poaching in communal areas. Similar findings on poverty as a cause of poaching were also found by studies by Leberatto (2016) and Lunstrum and Givá (2020), highlighting similar results that individuals are motivated to engage in poaching activities due to poverty.

LEGAL FRAMEWORK AND PERCEIVED CONTROL (LACK OF AWARENESS)

Zimbabwe has been actively working to combat environmental crimes, ratifying the Southern African Development Community (SADC) Protocol on Wildlife Conservation and Law Enforcement and implementing the SADC Law Enforcement and Anti-Poaching (LEAP) Strategy 2016-2021. The country plans to launch the International Consortium for Combating Wildlife Crime initiative and build state agency capacity. Other strategies include park and species management plans, increased collaboration with the Zimbabwe Republic Police Support Unit, increased use of aircraft and new technologies, awareness workshops targeting stakeholders, enhanced collaboration with the private sector and cross-border cooperation with neighbouring countries.

However, as noted by ZELA (2024), the current legal framework for unlawful hunting of elephants and the illegal removal of meat from them lacks sufficient deterrent impact. Penalties for hunting non-specially protected species within protected areas include fines, imprisonment for up to two years, or a combination of both. This leniency raises concerns about the effectiveness of the existing legal framework and calls for a critical re-evaluation of these penalties. Lack of sufficient deterrent impact, under resourced and incapacitation of law enforcement agents, weak legal instruments and institutions, imply that the probability that many activities of poaching are happening unnoticed and unreported is very high and unimaginable. As posited in the Reasoned Action Approach, perceived control over poaching significantly influences the effectiveness of law enforcement and legal frameworks. In the case of weak deterrent impact, individuals end up feeling more control over their poaching behaviours if they perceive minimal or unlikely punishments, while weak legal frameworks or lenient punishments can undermine this perceived control.

Overwhelmingly, the study found evidence of serious poaching from wildlife crime court monitoring reports and other sources. However, due to under-resourced and incapacitation of law enforcement agents, weak legal instruments and institutions, serious economic challenges, such as high unemployment, high poverty levels, high corruption levels, harsh environmental conditions that inhibit crop farming leading to high reliance/dependence on wildlife and natural resources by communities adjacent to the animal sanctuaries; inherent traditional and cultural norms of survival by marginalised communities found near game parks since time immemorial, the chances poaching is undetected and are very high and unimaginable.

DISCUSSION

The environmental justice approach, reasoned action approach and routine activity approach all highlight the significant role of poverty and lack of awareness in Zimbabwe's poaching. The environmental

justice approach acknowledges socio-economic disparities and unequal distribution of resources within polities and societies especially within the context of the Global South, leading marginalised communities to rely on wildlife for survival. The reasoned action approach highlights the lenient legal framework and weak deterrent impact, while the routine activity approach highlights the lack of awareness among villagers about the seriousness and consequences of poaching, making them susceptible to exploitation. In addition, the findings indicate that proximity to protected areas, ports of entry and wildlife corridors increases the likelihood of poaching activities, suggesting that access to wildlife resources and potential economic gains motivate individuals to engage in poaching.

The species analysis in the KAZA region supports the routine activity approach, suggesting that motivated offenders, suitable targets and lack of guardians, create opportunities for criminal activities. The most affected species, such as kudu, impala, buffaloes, elephant and pangolin, are targeted due to their vulnerability, economic value, demand in illegal wildlife trade, or cultural significance. In addition, poaching activities in protected areas, despite diverse wildlife populations and valuable species, suggest the presence of suitable targets and inadequate guardianship.

The study suggests that poverty and economic hardships are key to reducing subsistence poaching and human-wildlife conflicts. Sustainable development, alternative livelihoods and improved education can alleviate poverty and reduce reliance on wildlife resources. Increasing awareness about wildlife's ecological importance, legal consequences and conservation benefits can change attitudes and behaviours towards wildlife. Strengthening law enforcement, enhancing regulations near protected areas, ports of entry and wildlife corridors can deter poaching activities, while increasing surveillance, improving infrastructure and implementing strict penalties can disrupt illegal activities. The routine activity approach and findings suggest that Zimbabwe can effectively combat poaching

and protect its diverse wildlife by identifying targeted species, enhancing surveillance, strengthening anti-poaching measures and understanding poacher motivations. This approach can also involve engaging local communities and providing alternative livelihoods.

CONCLUSION AND RECOMMENDATIONS

The article highlights the growing issue of poaching in Zimbabwe's communal and resettlement areas, revealing a deeper problem which has adverse effects on the resilience and sustainability of communal and resettlement, than initially thought. The rise in wildlife crime cases, particularly involving endangered species like elephant, indicates a growing threat to wildlife populations. The high conviction rate and completion of cases show the commitment of law enforcement authorities. However, further focus is needed on addressing gender disparity, tackling foreign national involvement, transnational criminal networks and ensuring legal representation for accused individuals. To effectively combat poaching, comprehensive efforts must be made, including strengthening enforcement, enhancing community engagement, raising awareness and addressing the underlying drivers of wildlife trafficking. The rise in wildlife crime cases, particularly targeting endangered species, underscores the need for urgent action. Poaching activities are more prevalent in areas with easy access to protected areas and ports of entry and near farm areas. The issue affects a wide range of wildlife, including bush meat, fish, elephant, pangolin and others. The study highlights the need for comprehensive conservation efforts and stakeholder involvement to address the underlying issues. Poaching in Zimbabwe is a complex issue with deep-rooted causes, including poverty, human-wildlife conflicts and syndicates exploiting vulnerable villagers. The current legal framework and perceived lack of control also hinder effective combat. Economic challenges, such as high unemployment rates and widespread poverty, exacerbate the situation.

The study, therefore, recommends strengthening law enforcement agencies to combat poaching in communal and resettlement areas. This can be done through improving surveillance, intelligence gathering and patrolling strategies; fostering collaboration between local, national and international agencies for enhanced coordination and sharing information; encouraging joint operations to tackle transnational wildlife trafficking networks effectively; and ensuring adequate resources and training for law enforcement authorities. Improving data collection and analysis on poaching incidents are essential for identifying trends, prioritising conservation efforts and allocating resources effectively. The government should review and enhance wildlife protection laws, and impose stricter penalties for poaching. Lastly, engaging local communities in wildlife conservation is crucial for long-term success. Zimbabwe's fight against poaching requires targeted poverty alleviation programmes and sustainable economic opportunities. Establishing community-based initiatives, providing livelihood options and promoting sustainable practices, can empower them, fostering a culture of conservation and responsibility.

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