

# Impact of COVID-19 on poaching and illegal wildlife trafficking trends in Southern Africa

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January 2022*

## Question

*What impact has COVID-19 had on poaching and illegal wildlife trafficking trends in Southern Africa?*

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## 1. Summary

**Poaching for the purpose of international trafficking of illegal wildlife products, as well as the trafficking of these products, generally decreased during the COVID-19 pandemic.** The numbers of both elephants and rhinos killed across Southern Africa declined sharply in 2020 and 2021 compared with 2019 and earlier, and worldwide quantities of illicit elephant ivory, rhino horn, and pangolin scales seized all declined dramatically from 2019 to 2020. These declines are largely attributed to the disruption of transportation routes used by wildlife traffickers to move illicit goods within Southern Africa and overseas by air, and in some locations to the effects of local lockdown measures.

**Poaching for subsistence consumption (bushmeat) generally increased across Southern Africa and worldwide during the COVID-19 pandemic,** incentivised largely by economic hardship and opportunities presented by a reduction in the capacity for anti-poaching enforcement and reduced numbers of tourists, whose presence tends to deter poachers. However, most of the evidence available is anecdotal and comes from news media reports rather than more rigorous studies.

**In the long term, poaching and trafficking are likely to return to pre-pandemic levels.** Commercial poachers and traffickers are likely to adjust their transportation routes and adapt their business models to take advantage of opportunities including selling illicit products online, taking advantage of cover provided by distribution chains for legal wildlife products, and the expanding market for traditional Chinese medicines. The global tourism industry is expected to be slow to recover from the effects of the pandemic, and governments may lack the capacity or will to increase support for conservation work, which raises concerns that conservation areas may continue to suffer reduced resources and reduced capacity to detect and prevent poaching. More positively, some authors have suggested the possibility that the COVID-19 pandemic could influence public attitudes against wildlife trafficking and in support of conservation, which could strengthen political will to act.

**Trends in poaching and illegal wildlife trafficking during the COVID-19 pandemic vary significantly across and within countries.** The impacts resulting from the measures put in place to reduce the spread of COVID-19 have varied significantly depending on local contexts. In particular, sources of funds for conservation work and anti-poaching enforcement vary across countries and protected areas, with the most vulnerable areas being those most dependent on tourism income.

**Up-to-date data on recent trends during the pandemic are scarce.** Good quality data are available on poaching and trafficking of high-value commodities such as elephant ivory and rhino horn, while data on poaching for subsistence are less rigorous and often anecdotal. Much of the evidence available for both types of poaching is not systematic and comes from news media reports, and suffers from inherent difficulties of collecting data on illegal activities. Data collection during the pandemic has also been hampered by the challenges of working safely during the pandemic, funding for monitoring and research has been reduced in most areas, and some reporting processes have not yet analysed data collected during 2021.

## 2. Pandemic-related factors influencing changes in poaching and trafficking trends

### Restrictions on travel impeded the movement of illicit goods

**Restrictions on international air travel contributed to a decline in the movement of illicit wildlife products and an increased reliance on maritime cargo by traffickers** (Stiles, 2021, p. 4). Before the pandemic, wildlife products that were relatively portable and high in value for their weight or volume were often transported by airline passengers or air freight. The vast majority of rhino horn, which is 55 times more valuable per kilogram to poachers than elephant ivory, was trafficked by airline passengers in personal luggage, while bulkier commodities like elephant ivory travelled more often by sea (UNODC, 2020, pp. 120, 61, 122). The COVID-19 pandemic had, and continues to have, a huge impact on international air travel as countries around the world instituted border controls and quarantine and testing requirements to limit the spread of the disease; international airline capacity was down by 94% compared with 2019 levels during the worst-affected month, April 2020, and annual total capacity was reduced by 68% in 2020 and 62% in 2021 compared with 2019 (ICAO, 2022, p. 36). In addition to the severe decrease in availability of flights, traffickers were deterred by passenger quarantine requirements, and clearance of products at airports by corrupt or complicit customs officers became less secure than in the past (Wildlife Justice Commission, 2020, p. 7). Delays in shipping goods by air meant that suppliers were less able to serve their customers (Wildlife Justice Commission, 2020, p. 7). This induced traffickers to increase their reliance on maritime cargo routes for moving some goods overseas (Stiles, 2021, p. 4; UNDP, 2022).

**Little or no evidence was found during the preparation of this report about the impacts of sea or road transport restrictions.** Maritime shipping has experienced rising costs and increased delays during the pandemic which have affected worldwide shipping, and although it seems likely that this might have made it more difficult to move illicit cargoes, no clear evidence was found. In **South Africa**, restrictions on road travel during the tightest lockdown period in March and April 2020 deterred poaching (Ash, 2020; Maron, 2020) and may also have deterred the transportation of illicit goods, but these restrictions were in place for only a short time.

### Reduced resources for conservation, anti-poaching, and anti-trafficking work

**Around the world, policy responses aiming to reduce the spread of the COVID-19 pandemic created serious economic and social disruption** through limits on international travel and local travel; restrictions on or closing of workplaces, schools, and public services; restrictions on public events and social gatherings; and requirements for social distancing (Cochrane, 2020; Hale et al., 2021, pp. 529–530; Hockings et al., 2020, p. 11; Spenceley, 2021b, p. 12). The tourism industry was particularly heavily affected: between January and May 2020, 'every global destination imposed travel restrictions', and 45% either 'totally or partially closed their borders to tourists' (United Nations World Tourism Organization, 2020, cited in Spenceley et al., 2021, p. 103). In Africa, international tourism was down by 99% in April, May and June 2020 (Spenceley, 2021b, p. 12). In a monthly survey of African safari tour operators, more than 90% of tour operators throughout most of 2020, and between 57% and 89% of tour operators in 2021, reported a 75% or greater reduction in bookings due to COVID-19 (Beekwilder, 2022).

**Protected areas and conservation programmes suffered dramatic reductions in revenue during the pandemic.** Many protected areas depend heavily on revenue from tourism to fund their activities. For example, communal conservancies in **Namibia** receive approximately 90% of their income from photo tourism and legal hunting, and in **Zimbabwe** and in **South Africa**, 80% of the national parks authorities' budgets are derived from tourism (Lindsey et al., 2020, pp. 1301, 1303). In **Botswana**, closing borders to tourists meant the loss of US\$2.2 million in revenue from hunting permits which would have supported the government and community-based organisations (Spenceley, 2021b, p. 17). In addition, experience from past economic crises worldwide suggests that funding for protected and conserved areas from all sources – not only tourism, but also from governments, official development aid, and philanthropy – is likely to decline significantly (Cumming et al., 2021, pp. 150–151). In some countries, operational budgets of environment (and other) departments were reallocated to the pandemic response (Hockings et al., 2020, p. 12).

**The decline in revenue has seriously affected the capacity and effectiveness of conservation projects and protected areas across Southern Africa, including the capacity to detect and counteract both commercial and subsistence poachers** (Hockings et al., 2020, p. 7; Niskanen, 2020, p. 185; Spenceley, 2021b, p. 12; Spenceley et al., 2021, p. 104). Conservation areas across Africa have had to cut back on anti-poaching and conservation work, such as employing rangers and conducting aerial patrols, which has increased vulnerability to poachers (Price, 2020a; Spenceley et al., 2021, p. 108; Stiles, 2021, p. 3). In a survey of protected areas across Africa in April 2020, more than 70% of countries noted impacts on revenue generation, monitoring illegal wildlife trade, and security intelligence; more than 60% noted impacts on investigations of suspected illegal activities, training programmes, research and monitoring, security of tourists and tourism-related facilities, conservation work outside protected areas, and collaboration with governmental bodies and local communities; and more than 50% noted impacts on the protection of endangered species, conservation education and outreach, field patrols and anti-poaching operations, and collaboration with private landowners, researchers and non-governmental organisations (Waithaka et al., 2021, pp. 42–44). Across **Namibia**, for example, tourism revenue losses were expected to threaten funding for 700 game guards and 300 conservancy management employees, and the viability of 61 joint venture tourism lodges employing 1,400 community members (Spenceley et al., 2021, p. 104). A survey of representatives of five conservation areas in Namibia in April 2020 reported that conservancies were reducing wildlife patrols and monitoring, which they believed was making them more vulnerable to illegal hunting (Lendelvo et al., 2020, pp. 4, 7–9). Guards were fearful of contracting the virus, and as the number of guards available was reduced, they also feared for their safety when confronting poachers (Lendelvo et al., 2020, p. 8). Similar trends of cuts to anti-poaching and conservation programmes, with consequent increases in the levels of poaching, have been observed worldwide (Hockings et al., 2020, p. 11; Spenceley, 2021b, p. 20; Spenceley et al., 2021, p. 21).

**Impacts on operations were less severe for protected areas and conservation programmes that were less dependent on tourism revenue.** Impacts varied from one protected area or conservancy to another, depending on the funding model in place at each location. In one national park in **Zimbabwe**, for example, anti-poaching operations were sustained by drawing on reserve funds and repurposing money that was intended for new accommodation (Wigram-Evans, 2020). In **Zambia**, no lockdown was imposed, and conservation work was reported as carrying on as usual (Wigram-Evans, 2020).

## Economic hardships incentivised subsistence poaching

**In times of economic crisis, people living near protected areas often diversify their livelihoods in ways that may include illegal wildlife harvesting and fishing** (Hockings et al., 2020, p. 11; Kennedy & Southern, 2021; Ndlovu et al., 2021, pp. 2, 6; Usui et al., 2021, p. 501). The economic and social restrictions put in place during the COVID-19 pandemic reduced employment and livelihood opportunities and led to communities increasingly depending on subsistence harvesting and foraging (Cochrane, 2020; Hockings et al., 2020, p. 11; Muposhi, 2022, p. 9; Nelson, 2022, p. 5). Economic disruptions in urban areas also increase pressure on rural livelihoods and conservation areas, as urban employment losses may lead to reduced urban-rural remittances or people returning to their home communities (Cochrane, 2020; Hockings et al., 2020; Waithaka et al., 2021, p. 52). Economic pressures may also incentivise participation in illicit markets for the trade of animal products in addition to poaching for subsistence (Cochrane, 2020).

In **Namibia**, for example, the decline in tourism activity was expected to reduce incomes for local people, 'increasing poverty among households living in conservancies and near protected areas... and forcing families to rely more heavily on natural resource extraction to sustain livelihoods (e.g. hunting wildlife for meat)' (Spenceley et al., 2021, p. 104). In **Zambia** and **Zimbabwe**, communities located around parks and conservation areas often depend heavily on tourism, and it was reported in June 2020 that 'all of that revenue has disappeared, so people are really struggling to buy food... as that desperation increases, the need for things like bush meat and income from poaching will definitely escalate' (Wigram-Evans, 2020).

## Reduced presence of tourists gave poachers more freedom

**The absence of tourists in conservation areas enables poachers to act more freely.** In normal times, tourists act as additional 'eyes and ears' in conservation areas, and their presence deters poachers from acting, but the decline in tourism activity emboldened poachers (Newburger, 2020; Spenceley, 2021a, p. 12).

## Human-wildlife conflict increased

**There is some anecdotal evidence that human-wildlife conflict may have increased during lockdown periods.** Human-wildlife conflict<sup>1</sup> is distinct from poaching, though it often leads to the killing of wild animals, and may make local communities less willing to coexist with wildlife and undermine conservation efforts. One study by members of the **Zimbabwe** Parks and Wildlife Management Authority suggests that the COVID-19 pandemic 'impaired collaborations with conservation partners to tackle burning conservation issues such as human-wildlife conflict through conservation education, awareness, social engagements and work that require close contact between people' (Ndlovu et al., 2021, p. 2). In **Botswana**, a spokesperson for the Department of Wildlife and National Parks noted an increase in conflicts due to wild animals (including buffalo, elephants, and lions) straying outside their normal ranges, which was partly

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<sup>1</sup> Situations when the behaviours of wildlife impact negatively on humans, or vice-versa, including for example wildlife damaging crops or threatening, injuring, or killing people and domestic animals, or people killing wild animals.

attributed to reductions in people's movements and activities during the lockdown period (Hambira et al., 2022, p. 9; Mmolai, 2020). In **Namibia**, a survey of five conservation areas reported that conservancies were experiencing increases in human-wildlife conflict and were less able to investigate and report on such incidents (Lendelvo et al., 2020, pp. 4, 7–9).

## Impacts on the demand for wildlife products are mixed

**The zoonotic origin of COVID-19 has caused some public concern about the safety of wildlife products.** Fear of disease is credited with influencing China to suspend trade in and consumption of wild animals (Chin & Vega, 2020; Kennedy & Southern, 2021) and to introduce 'a list of more than 900 protected species, including pangolins and pandas, with hunters and traffickers now facing fines and prison time' (Kennedy & Southern, 2021). A WWF survey in China, Myanmar, Thailand, Viet Nam, and the USA in 2021 found that nearly 30% of people surveyed said they had consumed less or stopped consuming wildlife altogether because of the health crisis (WWF, 2021).

**The demand for wildlife products for use in traditional medicine is increasing.** During times of economic hardship, low-income people may turn to traditional remedies based on wild animal and plant species (Kennedy & Southern, 2021). Demand for traditional Chinese medicines, in particular, is high and their use is expanding rapidly across Africa and is being actively promoted as part of the Chinese Belt and Road Initiative (Environmental Investigation Agency, 2021, p. 4; Nelson, 2022, p. 26). In March 2020, China's National Health Commission began promoting a range of traditional Chinese medicines as COVID-19 treatments and donating some remedies to low-income countries (Environmental Investigation Agency, 2021, p. 13; Kennedy & Southern, 2021). There are no restrictions on the use of animal products in traditional Chinese medicine and non-food purposes, including ornamental items (Chin & Vega, 2020).

## 3. Trends in commercial poaching and trafficking

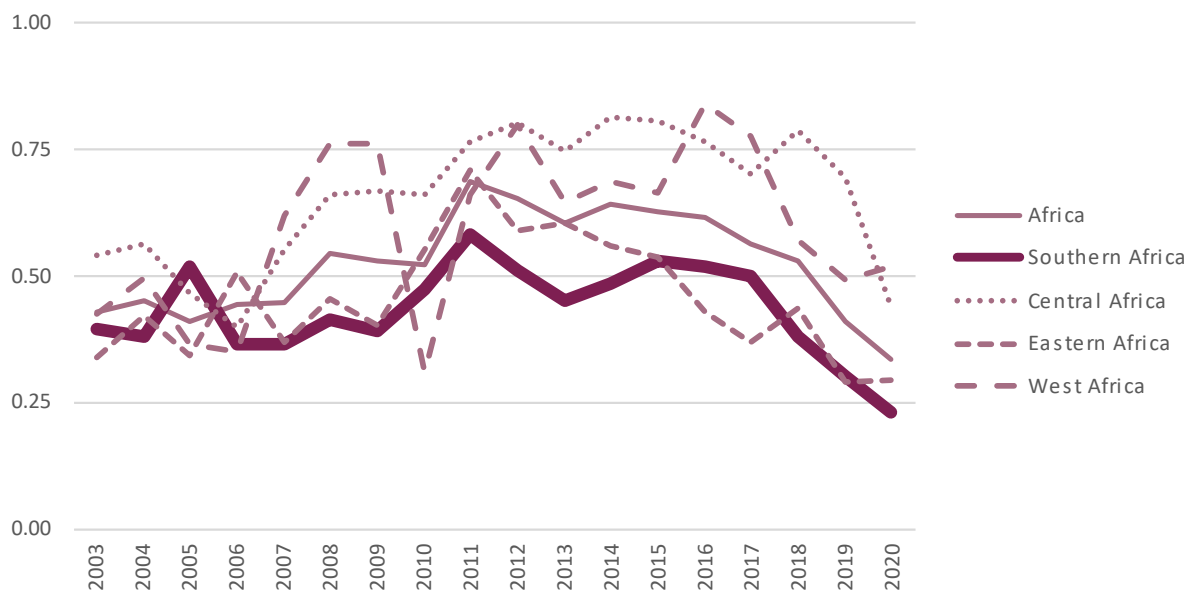
### Elephant poaching, region-wide

**Elephant poaching declined significantly across most of Africa in 2020.** Poaching of elephants in Africa has been in decline for the past decade<sup>2</sup>. The Convention on International Trade in Endangered Species of Wild Fauna and Flora coordinates a programme called Monitoring the Illegal Killing of Elephants (MIKE), which collects data from member states on elephant carcasses found in the wild, including both illegally-killed elephants and natural deaths, and calculates the Proportion of Illegally Killed Elephants (PIKE) as an indicator of poaching (CITES-MIKE, 2018). Southern Africa has seen a consistent decline in the illegal killing of elephants since 2015, and 2020 saw the lowest proportion of illegal killing of elephants since the programme began in 2003 (CITES-MIKE, 2021).

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<sup>2</sup> Other factors unrelated to the pandemic are also likely to have also influenced the decline in elephant poaching; these are beyond the scope of this report, but are likely to include intensified law enforcement activity, market over-supply built up prior to 2015, the closure of legal ivory markets in China, Singapore, Vietnam, and Myanmar, and increased restrictions on ivory sale in many other countries (UNODC 2020, p. 55-56; Nelson, 2022, pp. 6-8; Stiles, 2021, pp. 3, 19).

Figure 1: Proportion of illegally killed elephants in Africa, 2003-2020

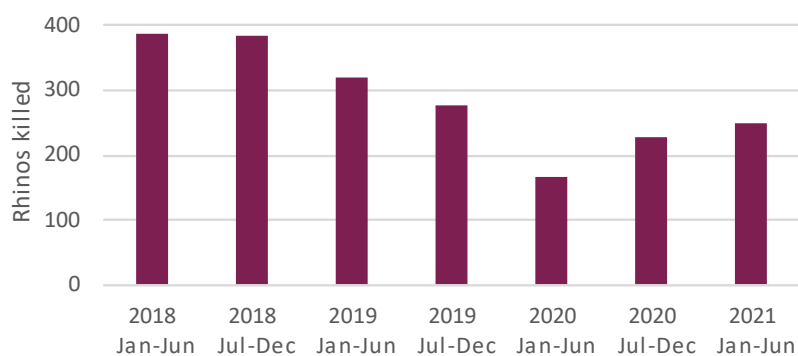


The 'Southern Africa' region includes Botswana, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe. Source: CITES-MIKE, 2021 reproduced under [copyright terms](#)

## Rhino poaching, South Africa

**A significant decrease in rhino poaching was observed in South Africa** in the first half of 2020, which the South African Department of Forestry, Fisheries and the Environment attributed to the limits on movement placed on people to reduce the spread of COVID-19 (South Africa Department of Forestry Fisheries and the Environment, 2021b, 2021a, p. 13). Representatives of government agencies, conservation organisations, and nature reserves concurred that during the most stringent lockdown period in March and April 2020, tight travel restrictions enforced by increased police presence significantly reduced poaching activity (Ash, 2020; Maron, 2020). However, 'the lifting of the stringent lockdown regulations appears to have seen an increase in rhino poaching in the first six months of 2021' (South Africa Department of Forestry Fisheries and the Environment, 2021b).

Figure 2: Rhino poaching in South Africa, 2018-2021



Sources: Authors own produced using data from South Africa Department of Environmental Affairs, 2019, p. 2 and South Africa Department of Forestry Fisheries and the Environment, 2019, 2021b, 2021c

**Rhino poaching in Kruger National Park was found to be significantly reduced during the COVID-19 lockdown period.** A study using aerial surveys of rhino populations conducted throughout 2020 when different levels of restrictions were in place identified the measures that had the greatest impact on poaching activity. At various times during 2020, restrictions in place in South Africa included combinations of: restrictions on international travel, which disrupted transportation of illicit goods out of the country (condition 'I' in Figure 3); restrictions on local travel, which limited movement of illicit products within the country (condition 'L'); stringent control of access into protected areas (condition 'A'); a period of 'zero tolerance' to violations of restrictions ('Z'); and a period when restrictions led to a reduction of available personnel that had the effect of reducing the numbers of compromised or corrupt staff that criminal syndicates depend upon ('S') (Ferreira et al., 2021, p. 103). The study found that the largest reductions in poaching activity occurred when four or all five of these restrictions were in place (conditions 'ILAZS' and 'ILAZ' in Figure 3). This 'created a COVID-19 poaching pause for rhinos in Kruger', with poaching levels decreasing by 79% compared with the 2017-2019 trend (Ferreira et al., 2021, pp. 103–105). However, when restrictions were lifted from June through December 2020, poaching activity resumed at a higher level than the 2017-2019 trend, and 165 rhinos were killed, compared with 144 during the same period in 2019 (Ferreira et al., 2021, p. 109).

Figure 3: Rhino poaching in Kruger Park under different lockdown conditions<sup>3</sup>

## Elephant and rhino poaching, Namibia

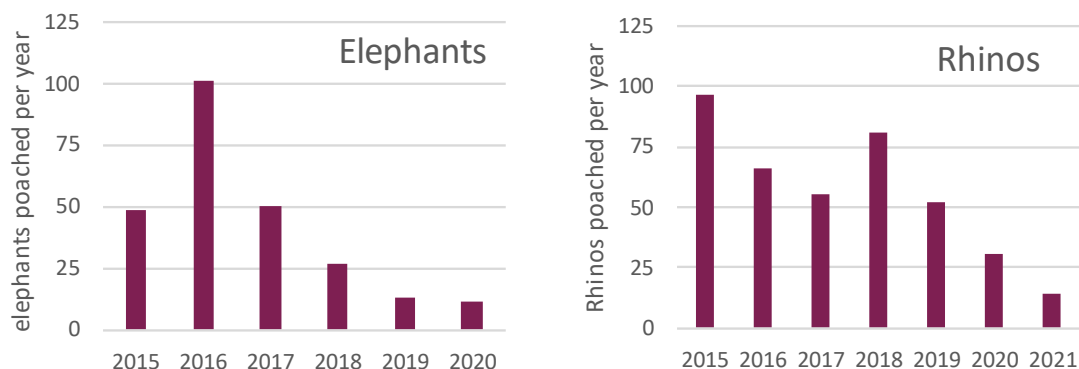
**Both elephant and rhino poaching declined in Namibia during the pandemic.** Namibia declared a state of emergency and a national lockdown in March 2020, which included closing borders to foreign nationals, restricting travel within the country, prohibiting large gatherings, and enforcing social distancing (Lendelvo et al., 2020, p. 3). All national parks were closed from 18 April to 5 May (CGTN Africa, 2020). The Minister of Environment, Forestry and Tourism reported that poaching of rhinos and elephants, which was already in a declining trend, had continued to decline in 2020 and 2021. However, it credits the decline in poaching to increased enforcement work including intensified ground and aerial patrols, collaboration with the public, harsher sentences for convicted poachers, and collaboration among the national police, military, and intelligence agencies, and says that COVID-19 and the ban on international travel was not a significant factor (Movirongo, 2021; Nyaungwa, 2020, 2021).

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<sup>3</sup> This figure has not been included due to copyright reasons Ferreira et al., 2021, p. 106 <https://bioone.org/journals/african-journal-of-wildlife-research/volume-51/issue-1/056.051.0100/The-Impact-of-COVID-19-Government-Responses-on-Rhinoceroses-in/10.3957/056.051.0100.short?tab=ArticleLink>



Figure 4: Elephant and rhino poaching in Namibia

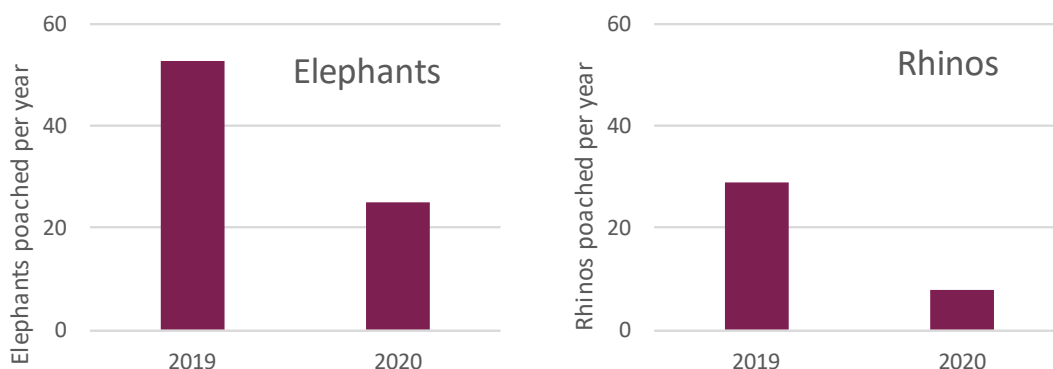


Source: Authors own produced using data from Movirongo, 2021 and Oxpeckers, 2022

## Elephant and rhino poaching, Zimbabwe

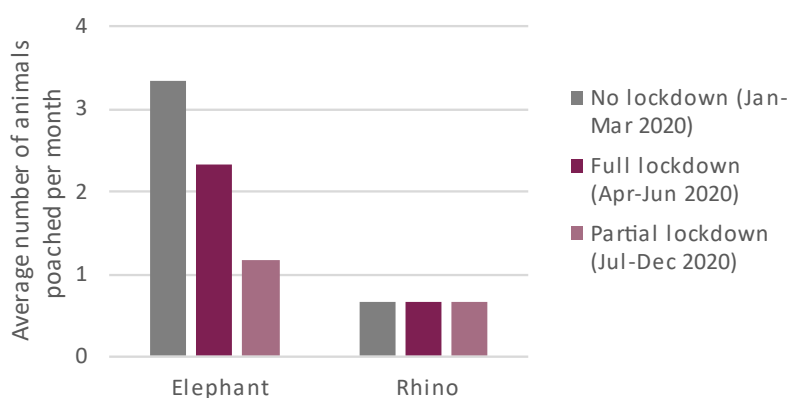
**Poaching of elephants and rhinos decreased significantly in Zimbabwe from 2019 to 2020, although nationally-imposed lockdown conditions do not appear to have been a strong influence.** Zimbabwe imposed restrictions to control the spread of COVID-19 in phases throughout 2020: no restrictions were in place from 1 January to 29 March, a full lockdown was in effect from 30 March 2020 to 01 July which shut down most economic activity in the country, and a 'partial lockdown' was in effect from 2 July to 31 December, which included reopening of domestic tourism from 4 September and international tourism from 1 October 2020 (Ndlovu et al., 2021, pp. 2–3). A study of 63 protected areas under the jurisdiction of the Zimbabwe Parks and Wildlife Management Authority collected data on enforcement resources, effort, and outcomes, and found that the lockdown measures had little effect on the operations of these protected areas (Ndlovu et al., 2021, pp. 2–4). The Parks and Wildlife Management Authority had financial reserves that it could draw on despite the drop in tourism revenue (Ndlovu et al., 2021, p. 7). The proportion of rangers available for duty showed only small variations across the lockdown periods (85% during no-lockdown, 87% during full lockdown, and 78% during partial lockdown), the use of resources such as diesel fuel and petrol did not vary significantly, and the number of patrols decreased during the full lockdown period but remained high during partial lockdown (Ndlovu et al., 2021, pp. 4, 8). Poaching of elephants appears to have decreased during lockdown periods, while rhino poaching showed no change across the three time periods (Ndlovu et al., 2021, p. 4).

**Figure 5: Elephant and rhino poaching per year (2019-2020) in Zimbabwe**



Source: Ndlovu et al., 2021, p. 5 reproduced under CC BY-NC-ND 4.0

**Figure 6: Elephant and rhino poaching under varying lockdown conditions in Zimbabwe**



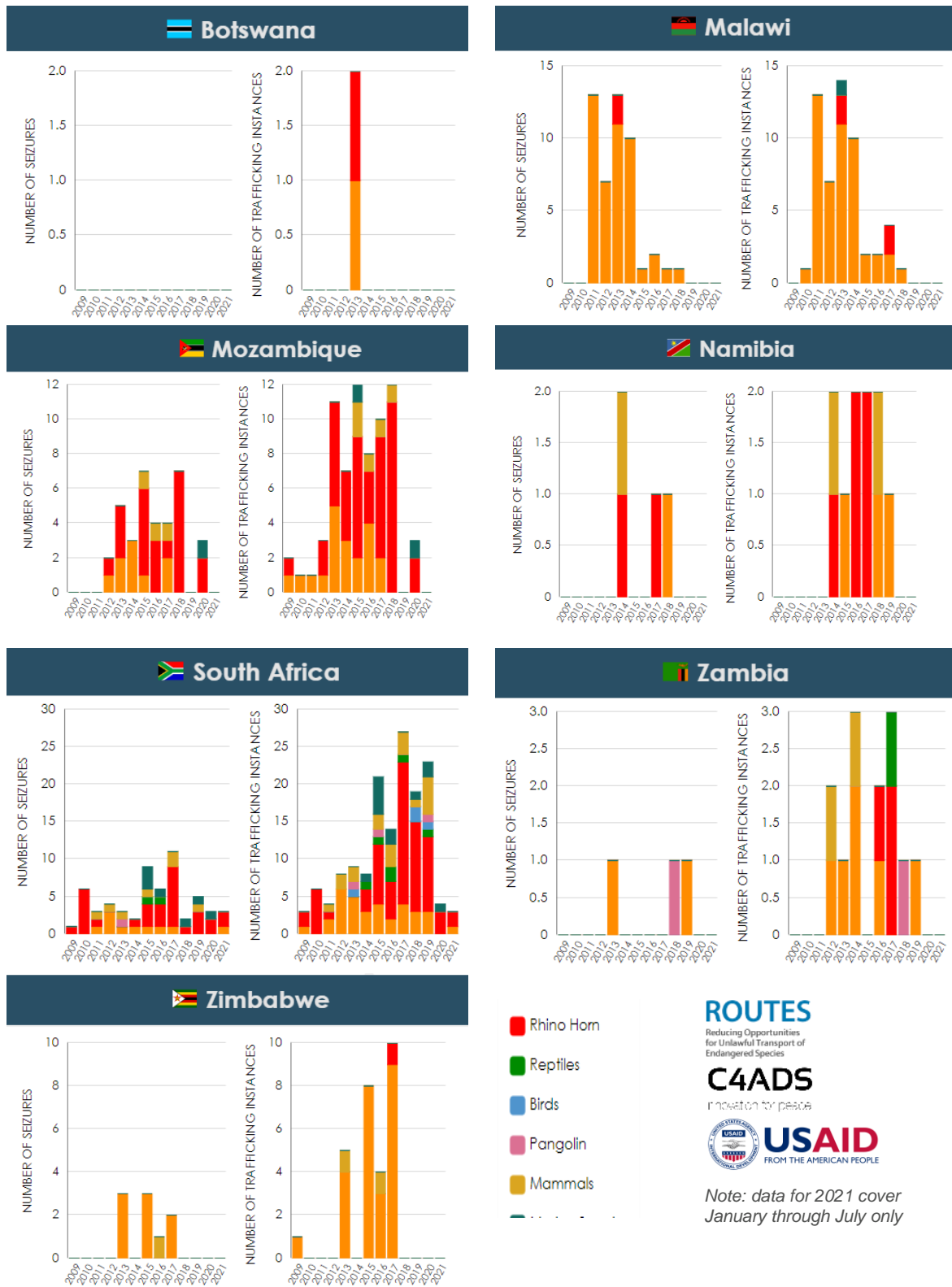
Source: Ndlovu et al., 2021, pp. 4–5 reproduced under CC BY-NC-ND 4.0

## Seizures of illicit products at airports, region-wide

**There were significant decreases in trafficking in and seizures of illicit goods at airports in 2020.** The USAID-sponsored Reducing Opportunities for Unlawful Transport of Endangered Species (ROUTES) Partnership maintained a database of reports of wildlife product seizures and trafficking instances<sup>4</sup> at airports worldwide until 2021. These data are collected from a variety of public reports and may be incomplete, may depend on local reporting practices, and may reflect changes in enforcement activity (C4ADS, 2021; Maron, 2021; Stiles, 2021, p. 3). The data show significant decreases in seizures and trafficking instances in 2020; the programme ceased operating in 2021 and the database contains data for only the first seven months of 2021, so those figures cannot be directly compared with other years (C4ADS, 2021).

<sup>4</sup> Seizures are occasions when wildlife products are actually seized at airports; trafficking instances include all known incidences of wildlife trafficking through the country (either as the country of origin, a transit route, or the final destination), regardless of whether or not the products were stopped there.

Figure 7: Wildlife seizures and trafficking incidences at airports, 2009-2021



Source: ROUTES Dashboard / C4ADS Air Seizures Database (C4ADS, 2021)  
 Graphics used with permission

**ROUTES**  
 Reducing Opportunities  
 for Unlawful Transport of  
 Endangered Species

**C4ADS**  
 Innovation for people

**USAID**  
 FROM THE AMERICAN PEOPLE

Note: data for 2021 cover  
 January through July only

## Seizures of illicit products globally

**Worldwide quantities of illicit wildlife products seized declined dramatically from 2019 to 2020 and 2021.** The quantities of elephant ivory, rhino horn, and pangolin scales intercepted by authorities in 2020 were ‘far less than compared with the previous five years’ and ‘both the number of seizures and weight of seizures plummeted’, which suggests that the overall level of trafficking dropped significantly (Maron, 2021). One study of global trafficking by C4ADS and National Geographic, for example, found that from 2019 to 2020, quantities of pangolin scales seized dropped by 80%, rhino horn by 90%, and ivory by 72% (Maron, 2021).

## Changes in poaching and trafficking practices

**As access to physical wildlife markets has been restricted, online wildlife trade appears to have increased** through anonymous online communication, social network groups, e-commerce platforms, encrypted messaging, virtual private networks, and hidden or ‘dark web’ services (Chin & Vega, 2020; Coalition to End Wildlife Trafficking Online, 2020, pp. 3, 14). Prior to COVID-19 lockdowns, ‘ivory and pangolin scale suppliers would rarely sell to buyers without face-to-face meetings, but... traffickers have adapted their modus operandi by increasingly using online platforms to circumvent pandemic restrictions’, raising the possibility that traffickers’ customer bases may have actually expanded throughout 2020 (Environmental Investigation Agency, 2020, p. 21). The Alliance to Counter Crime Online reported that online markets continued operating without apparent disruption throughout 2020, and that ‘illicit online advertisements for exotic pets such as cheetahs boomed’ (Maron, 2021). The scale of illicit online markets is difficult to estimate, but Facebook and Google reported removing ‘several million’ advertisements related to China’s illegal wildlife trade in May 2020 (Chin & Vega, 2020), and the Coalition to End Wildlife Trafficking Online reports having blocked 11.6 million posts and listings of illegal wildlife for sale from 2018 through 2021 (Coalition to End Wildlife Trafficking Online, 2021, p. 1).

**Disruption to international transportation routes led traffickers to reduce movements of products, and to stockpile products until routes reopen.** Disruptions to air travel caused by responses to the pandemic impeded transportation of high-value products and led wildlife traffickers to make greater use of maritime cargo and air freight, which have been less affected (see page 3). The Wildlife Justice Commission, a Dutch-based non-profit organisation, also reports that illegal traders have been stockpiling ‘huge quantities’ of products in Africa and in Asia as a direct result of border closures and increased border security during the pandemic (Maron, 2021; Wildlife Justice Commission, 2020, p. 5). The Commission is concerned that as transportation becomes easier, there a flood of stored products will be released onto the market and at the same time, pent-up demand will fuel an increase in poaching activity (Maron, 2021). The Global Initiative Against Transnational Organized Crime similarly reported in June 2020 that it was, at that time, too risky for traffickers to move their goods because of travel restrictions, and that this was likely leading to stockpiling products (Cochrane, 2020).

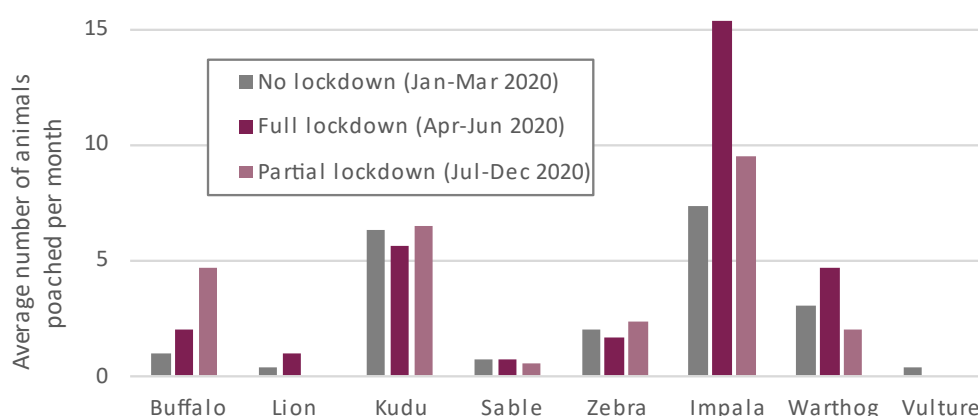
## 4. Trends in subsistence poaching

**There is a clear consensus in the literature that poaching for subsistence increased during the pandemic as a way of coping with livelihood disruptions.** However, most of the evidence available for this is anecdotal and comes from news media reports rather than more

rigorous studies. Most species targeted for bushmeat are smaller game animals, and although many of these are not endangered, widespread poaching causes ecological disturbance and there is a risk of that some species may become significantly depleted (Cochrane, 2020).

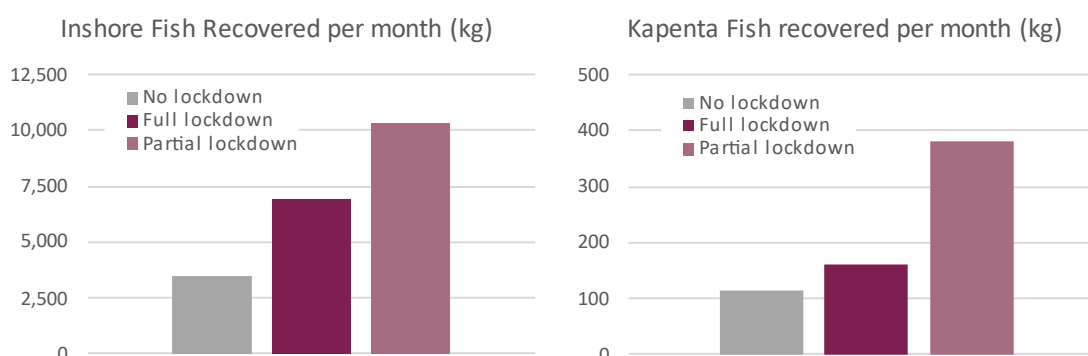
**One study in Zimbabwe found that during the period of full lockdown in the country, levels of poaching increased for some plains game species**, motivated by the demand for bushmeat for subsistence or resale<sup>5</sup> (Ndlovu et al., 2021, pp. 8–9) (see page 9 above for further discussion of this study). The lockdown periods coincided with the dry season, which normally sees higher poaching than the rainy season, adding to the pressures on wildlife (Ndlovu et al., 2021, p. 5). Quantities of illegally-caught fish recovered showed dramatic increases during the full lockdown and partial lockdown periods compared with the no-lockdown condition, although seizures of fishnets and canoes from poachers showed little variation (Ndlovu et al., 2021, p. 5).

**Figure 8: Game poaching during various lockdown periods, Zimbabwe**

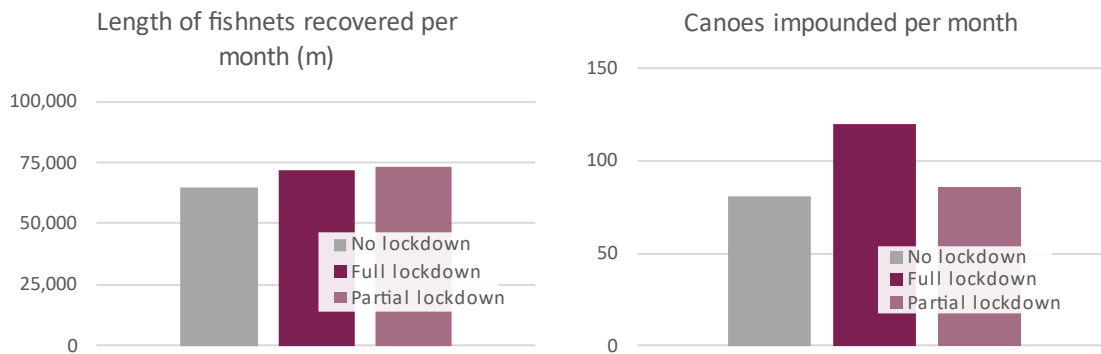


Source: Ndlovu et al., 2021, p. 5 reproduced under CC BY-NC-ND 4.0

**Figure 9: Indicators of illegal fishing activity during various lockdown periods, Zimbabwe**



<sup>5</sup> The authors of the paper conclude that poaching of game animals increased under lockdown conditions, but it is not clear how their analysis took into account the varying durations of the lockdown periods. Based on the data presented in their report, and considering monthly average poaching figures rather than total numbers of animals killed, there appears to be little difference across the time periods for most species.



Source: Ndlovu et al., 2021, p. 5 reproduced under CC BY-NC-ND 4.0

### Reports from other countries across Africa and worldwide support the contention that subsistence poaching increased during COVID-19 lockdowns:

- An Associated Press news story in June 2020 cites the chair of the African Pangolin Working Group as saying that 'bushmeat poaching was soaring, especially in parts of **southern Africa**' as 'rural people are struggling to feed themselves and their families' (Ghosal & Casey, 2020).
- In a 2022 presentation, a spokesperson for the Global Initiative Against Transnational Organized Crime noted that bushmeat poaching increased significantly at the beginning of the pandemic, including a 40% increase in bushmeat seizures in **Kenya** in the first half of 2020 compared with 2019, a three-fold increase in snares recovered in **Zambia** in the same period, and 'a vast increase' in **Tanzania, Mozambique, and Uganda** (Nelson, 2022, p. 5).
- In **Kenya**, Conservation International reported 'an alarming increase in bushmeat harvest and trafficking' as well as an increase in organised criminal poaching activity due to economic hardship as income from tourism ceased (Conservation International, 2020; Price, 2020b). A CNN report in September 2021 similarly notes that seizures of illegal bushmeat, 'are set to hit a record high' and that bushmeat poaching is driven by employment losses and poverty (McLean et al., 2021).
- National Geographic reported that 'illegal trapping and killing of wildlife for sale as bushmeat and for local consumption continued—or intensified—in 2020 in **Uganda, Madagascar, and other countries**' (Maron, 2021).
- Voice of America reported in July 2020 that '**Uganda's** national parks recorded a doubling of wildlife poaching during the pandemic compared to this time last year' (Athumani, 2020).
- Conservation International also reported 'an increase in the sale of bushmeat' in **Cambodia** (Conservation International, 2020).
- A study by TRAFFIC in **India**, based on reports of poaching in the news media, found that reports of poaching of wild animals across the country increased by two and a half times during a nation-wide lockdown, from 35 incidents in the six weeks preceding the lockdown period, to 88 incidents in the six weeks of lockdown (Badola, 2020).

Conversely, however, the **South African** Department of Forestry, Fisheries and the Environment claimed in May 2020 that ‘poaching for bushmeat in the Kruger National Park has not increased because of the lockdown’ (South Africa Department of Forestry Fisheries and the Environment, 2020).

## 5. Beneficial impacts of COVID-19

**Several authors note that the reduction in tourism and other human activity may have reduced pressures on wildlife and ecosystems.** Some popular tourism destinations that have suffered from ‘overtourism and crowding’ (Spenceley, 2021b, p. 16) may have benefited from reduced visitor traffic and pollution (Kennedy & Southern, 2021; Spenceley, 2021b, p. 16). During the periods of greatest restrictions there were reports around the world of wildlife and natural areas ‘thriving in the absence of visitors’ (Spenceley, 2021b, p. 19), of animals ‘returning to places they used to live, feed or nest’ (Spenceley, 2021a, p. 12), and of animals ‘venturing into rural and urban areas, including parks and beaches, where they have not been seen for many years’ (Corlett et al., 2020, p. 2). However, ‘such benefits are likely to be ephemeral once restrictions of human movement are rolled back’ (Hockings et al., 2020, p. 10).

## 6. Longer-term impacts on poaching and trafficking

This section of this report identifies impacts on poaching and wildlife trafficking in Southern Africa that may arise from the COVID-19 pandemic and be sustained beyond the pandemic. However, it does not attempt to discuss other long-term trends affecting poaching and wildlife trafficking in the region.

**Most authorities anticipate that poaching and trafficking will revert to pre-pandemic trends as restrictions imposed to reduce the spread of the disease are relaxed.** The Global Initiative Against Transnational Organized Crime, for example, anticipates that ‘once the virus has been contained by large-scale vaccinations, projected to be early 2022 in the US and the UK, later in 2022 for the EU and 2023 for the rest of the world, it is likely that poaching will resume to supply pent-up demand’ (Stiles, 2021, p. 24). A more recent presentation by a spokesperson for the Global Initiative confirmed that they have seen a general increase in poaching and trafficking of ‘high value products’, including a ‘huge uptick’ in rhino poaching in South Africa and Botswana, although this increase has not been seen in Tanzania, Kenya, and Namibia, likely due to intensive local enforcement activity (Nelson, 2022, pp. 5–6). The Wildlife Justice Commission agrees that ‘measures imposed to curb the widespread transmission of COVID-19 may have temporarily restricted illicit trade... but this is unlikely to last long. All indications presently show that the high-level trafficking networks will resume operations as soon as they are able, or will adapt and find alternative workarounds for the current blockages’ (Wildlife Justice Commission, 2020, p. 5). The UN Office on Drugs and Crime concurs: ‘it is highly likely that wildlife trafficking will not have substantially decreased... buyers and sellers will likely reorganize and increase focus on online trade channels and related mechanisms’ and poachers will exploit the fact that many conservation areas are suffering from reduced revenue leading to reduced capacity to guard against them (UNODC, 2020, p. 34).

**While COVID-19 persists, sporadic localised and country lockdowns and unpredictable disruptions to travel will continue to hinder traffickers’ activities and significantly reduce**

**their use of passenger air travel and road transport to move their products** (Stiles, 2021, p. 24; Wittig, 2020, pp. 4–5). Over time, however, wildlife traffickers are likely to shift their modes of transport and routes, and illegal wildlife products previously transported by airline passengers will increasingly be transported via air cargo, sea cargo, or in the case of certain fragile items or live specimens, by air courier services (Wittig, 2020, pp. 4–5).

**Wildlife traffickers are highly adaptable and are likely to change their activities to seek out new illicit business opportunities as the environment changes.** United for Wildlife anticipates that illegal wildlife traders ‘will easily adapt to the new macro market conditions and return to full profitability within 2-3 years, in line with the aftermath of the 2002-03 SARS outbreak’ (Wittig, 2020, p. 3). They also anticipate that illegal wildlife wholesalers may find opportunities arising out of the pandemic to expand their operations and market share. Restrictions on the sale and consumption of wildlife products that have recently come into force, notably in China and Vietnam, may create new illicit business opportunities such as selling and renting legally obtained wildlife trading permits, licenses, and certificates to illegal traders. Traffickers may also begin to use legal wildlife supply and distribution chains, such as supply chains for traditional Chinese medicine products, as a cover for illicit activity, possibly shifting activities towards greater emphasis on species more easily covered by the legal trade such as frogs, birds, turtles, and snakes (Wittig, 2020, p. 4).

**Continued restrictions on physical wildlife markets are likely to continue to incentivise the shift to online trading that has already been seen** at both the wholesale and retail levels (Wittig, 2020, p. 3). This may make wildlife traffickers more vulnerable to electronic surveillance and offensive cyber operations (Wittig, 2020, p. 3)

**The global tourism industry will be slow to recover from the effects of the pandemic.** One report indicates that recovery from past global disease crises has taken an average of 19.4 months (Global Rescue and World Travel & Tourism Council, 2019, p. 9), but the COVID-19 pandemic has been significantly more serious than most disease outbreaks. In a survey of international tourism experts in October 2020, most expected that international tourism would return to pre-pandemic levels only in 2024 or later (UNWTO, 2020). Philanthropic support for conservation efforts is also expected to recover slowly; experience from previous large-scale crises suggests that donor funding for African conservation is likely to be reduced for the next one to two years due to economic difficulties and shifting donor priorities (Lindsey et al., 2020, p. 1303).

**Concerns have been raised about the ability of governments to maintain commitments to wildlife conservation in the face of competing health, economic, and social priorities.** In several countries, ‘arguments for rolling back environmental protections are gaining traction, including provisions that would newly authorise or expand extractive industries and infrastructure in protected and conserved areas’, justified in part by initiatives to ‘re-energise economies for a post-COVID-19 world’ (Hockings et al., 2020, p. 12).

**With reduced resources, conservation areas will continue to suffer reduced capacities to undertake all of their functions, including detecting and preventing poaching and responding to fires and incidents of human-wildlife conflict.** The latter could lead to increased hardship to communities and in turn, reduced tolerance for wildlife and conservation work (Hockings et al., 2020, p. 11). Across Africa, United for Wildlife projects that poaching of elephants, rhinos, big cats, and other species ‘will significantly increase... in reserves and



protected areas which have been forced to reduce ranger force staffing levels, patrolling and intelligence operations, training, and/or equipment provision due to loss of tourism revenue or donor funds' (Wittig, 2020, p. 2). United for Wildlife particularly anticipates problems in **South Africa, Botswana, Kenya, Namibia, and Tanzania**, and where protected areas 'lack mutually positive relationships with the local communities that surround them (Wittig, 2020, p. 2).

**The aftermath of the COVID-19 pandemic may offer opportunities for strengthening political will to act against wildlife trafficking.** The zoonotic origin of COVID-19 and its connection with wildlife trafficking has highlighted risks in a way that might potentially be used to strengthen public opinion against wildlife trafficking, increase support for targeted bans, and make wildlife products less desirable, all of which could help undermine wildlife trafficking (Hockings et al., 2020, pp. 12–13; Wittig, 2020, pp. 3, 5). Increased public support could strengthen the political will to attack trafficking networks through coordinated international policy responses, stronger enforcement, and measures to increase social stigma for consuming and trading in illegal wildlife products (Wittig, 2020, p. 5).

**Some authors suggest that the pandemic could potentially leave a legacy of more positive public attitudes towards outdoor recreation, conservation, and protected areas.** 'COVID-19 has spurred innovation and encouraged dispersed recreation' and public messaging about 'the safety and health benefits of socially distanced outdoor pursuits' could potentially create lasting benefits (Spenceley et al., 2021, p. 109). Despite restrictions in place during the pandemic, 'people are seeking out adventure travel, natural spaces and sustainable experiences'; more diverse segments of society are visiting protected areas, there is growing interest in travel but also in 'staycations, micro-adventures and generally in domestic tourism' (Spenceley et al., 2021, pp. 110–111). The pandemic has highlighted 'the connection between healthy nature and human health and well-being', including the importance of nature for mental health; 'urban parks and protected areas are becoming a lifeline for physical and mental health... this increased usage and interest could have additional benefits for protected and conserved areas and green space more generally (Hockings et al., 2020, pp. 12–13).

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## Acknowledgements

We thank the following experts who voluntarily provided suggestions for relevant literature or other advice to the author to support the preparation of this report. The content of the report does not necessarily reflect the opinions of any of the experts consulted.

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## Suggested citation

Lucas, B. (2022). *Impact of COVID-19 on poaching and illegal wildlife trafficking trends in Southern Africa*. K4D Helpdesk Report 1094. Institute of Development Studies. DOI: [10.19088/K4D.2022.017](https://doi.org/10.19088/K4D.2022.017)

## About this report

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K4D services are provided by a consortium of leading organisations working in international development, led by the Institute of Development Studies (IDS), with the Education Development Trust, Itad, University of Leeds Nuffield Centre for International Health and Development, Liverpool School of Tropical Medicine (LSTM), University of Birmingham International Development Department (IDD) and the University of Manchester Humanitarian and Conflict Response Institute (HCRI).

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