

Policy Briefing

240

June 2021



A One Health Approach to Combatting COVID-19 and Illegal Wildlife Trade in Africa

NICK KING

Recommendations

- Adopt a 'One Health' approach at the regional, national and local level to optimise synergies and improve integration across the related sectors of human health, biodiversity conservation and climate change.
- Initiate and scale nature-positive investments to enhance social well-being, including those that minimise exposure to zoonotic transmissions.
- Support landscape restoration and food security by combatting illegal wildlife trade (IWT) and preventing unregulated land-use change.
- Design COVID-19 pandemic-response green stimulus packages to incorporate the One Health approach and link this to existing global funding sources.
- Prioritise working with and building capacity in local and rural communities most affected by economic decline, and those who live closest to the human–livestock–wildlife interface and areas of origin of IWT.

Executive summary

The COVID-19 pandemic has had a disastrous impact on the global economic and social fabric. Zoonotic disease spill-over from other species has become a familiar phenomenon, and the need for a more proactive approach to minimise exposure to and opportunities for spill-over is widely recognised. In particular, it is crucial to incorporate measures to combat illegal wildlife trade (IWT) in cross-sectoral policies addressing the triple challenges of human health, biodiversity loss and the climate crisis. Implementing an integrated One Health approach is estimated to cost one-hundredth of the economic damage that pandemics produce. This policy brief recommends incorporating the combatting of IWT into a much wider-ranging, multi-sectoral One Health approach for Africa.

Introduction

The devastating global to local economic and social impacts of the ongoing COVID-19 pandemic are now well known. Some three-quarters of emerging diseases, including almost all pandemics (eg, HIV/Aids, COVID-19), are caused by pathogens of animal origin, ie zoonoses. These spill over owing to contact among and between wildlife, livestock and people. Given this long history of zoonotic spill-over from other species, the current scientific opinion is that the most likely source of COVID-19 is zoonotic transmission from an as-yet unverified host animal species in a wildlife 'wet market' in Wuhan, China. Consequently, there has been speculation and recommendations as to how to prevent future transmissions of novel zoonotic diseases through wet markets. These include banning them completely and banning all trade in wildlife, whether for consumptive or non-consumptive use, especially the illegal and thus unregulated trade. However, since millions of people worldwide depend on wet markets for both food and work, and on wildlife meat (as well as domestic livestock and seafood products, also sold at wet markets) as a primary source of protein, such blanket bans are unworkable. Of more concern is that they would likely push the wildlife trade underground, exacerbating the already worrying global illegal wildlife trade (IWT). Inadvertently driving the expansion of IWT, by definition unregulated, would not only increase the risk of further zoonotic spill-over but also undermine biodiversity conservation efforts. A radically different policy approach is needed to avoid such maladaptations. This policy brief, while dealing specifically with the role of IWT, recognises it is just one piece of the puzzle and recommends incorporating the combatting of IWT into a much wider-ranging 'One Health' approach for Africa.¹

¹ For a detailed explanation of the complexities of the One Health approach, see Chet Trivedy, "[Solving the One Health Puzzle](#)", *Biodiversity* 21, no. 1 (2020): 1-8.

The illegal wildlife trade in context

The world is in the midst of a well-documented biodiversity crisis, with wildlife populations plummeting and species extinctions occurring at unprecedented rates. These trends are driven by habitat destruction, over-use, climate change and the illegal harvesting of and trade in wildlife.² In Africa, as elsewhere, devastating declines in biodiversity are on the rise, despite the fact that the natural resource base is still relatively intact. For example, the African forest elephant experienced a population crash of approximately 62% and a 30% reduction in its geographical range in just one decade between 2002 and 2011.³ Rapid human population growth driving encroachment, illegal hunting, poor law enforcement, and expanding infrastructure such as roads and mines were found to be the main drivers of this decline – threats that are becoming increasingly pervasive across the continent.⁴

A recent analysis of the wildlife trade database held by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the international treaty mandated to regulate such trade and ensure sustainable use, found that in just two decades (from 1998 to 2018) over 421 million individual threatened wild animals were traded across borders.⁵ The bulk of the trade was from lower-income countries to richer ones, suggesting that higher prices are obtained outside countries of origin, increasing the potential for zoonotic disease transmission. The analysis raised concerns regarding the incompleteness of the data, the unsustainable harvesting of certain species and the impact on biodiversity conservation in general, and the potential for the regulated wildlife trade to enable laundering of IWT.

According to the latest UN Environment Programme (UNEP)-Interpol evidence, globally IWT is estimated to be worth up to \$20 billion per year and rising. IWT comprises both illegal hunting and poaching for local consumption ('bushmeat') and transboundary trade through organised crime syndicates. The latter links IWT to other organised crime activities such as the illegal arms and drugs trade, as well as funding of militias in countries of origin. In addition to human health risks, IWT is thus also a serious contributor to social conflict and economic loss in source countries in particular.

However, it is important to note that concerns are also being raised regarding the risks from the legal wildlife trade in enabling disease spill-overs. The threat posed by the legal wildlife trade should be at least of equal concern as IWT, and the two addressed simultaneously.⁶

Given that in many instances the legal wildlife trade is several orders of magnitude larger than the illegal trade, incredibly serious risks are associated with the trade in

2 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *The Global Assessment Report on Biodiversity and Ecosystem Services* (Bonn: IPBES, 2019).

3 Fiona Maisels et al., "Devastating Decline of Forest Elephants in Central Africa", *PLoS ONE* 8, no. 3 (2013): e59469.

4 IPBES, *The Regional Assessment Report on Biodiversity and Ecosystem Services for Africa* (Bonn: IPBES, 2018).

5 Jia Huan Liew et al., "International Socioeconomic Inequality Drives Trade Patterns in the Global Wildlife Market", *Science Advances* 7, no. 5 (2021).

6 Vincent Nijman, "Illegal and Legal Wildlife Trade Spreads Zoonotic Diseases", *Trends in Parasitology* 37, no. 5 (2021).

wildlife, regardless of whether the species involved are traded legally or illegally. It is ineffective and possibly dangerous to focus on the illegal wildlife trade only.

Fortunately, this recognition is now permeating the policy arena, with the most recent [CITES Standing Committee meeting](#) in May 2021 noting that it is essential to address the zoonotic risks and vulnerabilities inherent in the legal wildlife trade.⁷ Member countries, especially countries of wildlife trade origin (which includes many African countries), should urgently look at improving the role of the convention in preventative oversight of IWT together with reducing the threat of zoonotic transmissions.

Responses to the COVID-19 pandemic and its impact on IWT

The COVID-19 pandemic has undoubtedly impacted biodiversity conservation and IWT in several ways. The impact on IWT is an emerging field, and difficult to measure given the illegal nature of IWT activities and their long, cryptic and convoluted supply chains. However, certain key elements have emerged, most especially the impact of lockdowns in increasing poverty and driving IWT.

The introduction of travel restrictions has reduced business travel and tourism overall, but most specifically ecotourism, and the associated income in biodiverse-rich countries has all but disappeared. This has collapsed most local employment options and associated income streams for rural communities in and near protected areas harbouring the charismatic wildlife and scenic landscapes ecotourists travel to see and experience.

Interviews with convicted wildlife offenders held in South African jails found that all offenders cited multiple socio-economic factors influencing or rationalising their decision to engage in IWT. Broadly, these included income generation, livelihood opportunity, normalisation (contested illegality), the lack of state legitimacy and a limited perception of the risks or consequences of participating in IWT. Over two-thirds claimed to have been forced into crime to survive.⁸

Given the influence of socio-economic factors on motivating participation in IWT in countries of origin, the impact of the pandemic on unemployment and poverty is profound. According to the [Global Report on Food Crises 2021](#), the COVID-19 pandemic has dramatically exacerbated the impacts of other drivers of food insecurity (such as ongoing conflict and climate change), raising figures globally to a five-year high by some 20%. Six of the top 10 countries affected are in Africa. The report forecasts that, while conflict

7 “Summary of the 73rd Meeting of the CITES Standing Committee: 5-7 May 2021”, *Earth Negotiations Bulletin* 21, no. 102 (May 10, 2021).

8 Sade Moneron, Adam Armstrong and David Newton, *The People Beyond the Poaching*, Report (Cambridge: TRAFFIC, 2020).

will remain the main driver in 2021, the economic fallout of COVID-19 will exacerbate food insecurity in fragile economies.⁹ Without urgent and targeted interventions, rural populations in particular will be forced to turn increasingly to natural resources to sustain themselves.

On a more positive side, the lockdowns, even where poorly policed, are understood to have curtailed much illegal wildlife poaching for trade, and disrupted global trade links. For example, [South African National Parks](#) has reported that local rhino poaching declined by 33% during 2020, with much of this ascribed to the global lockdowns.¹⁰ However, such lockdown-induced reductions are regarded as temporary unless other measures are put in place.¹¹

Further, it appears that the online commercial IWT has not diminished despite the widely publicised threat of disease transmission. Rather, lockdowns have been used as encouragement to purchase 'exotic pet lockdown companions'.¹² The study concludes that campaigns to ban wildlife markets as potential spill-over hotbeds have not discouraged online wildlife trade per se, but only changed the nature of it.

While some parties have advocated a complete ban on wildlife trade to prevent outbreaks and protect biodiversity, a comprehensive new study of food systems across 83 countries suggests that, far from solving the problem, a sudden blanket ban may actually exacerbate it.¹³ The analysis compared the volume of livestock protein required to replace the wildlife protein lost through a ban, concluding this would have a huge negative impact on biodiversity with over 120 000km² of new agricultural land needed for replacement livestock farming. Given that the vast majority of zoonotic spill-overs have originated where agriculture is pushing further into intact biodiversity habitats, the study suggests such a ban would not just further threaten numerous species through habitat loss but also increase the risk of future pandemics through increased exposure.

An integrated response to IWT, zoonotics and global challenges

Among the key policy recommendations to prevent future pandemics that arose from [UNEP's Fifth Science-Policy Forum for Biodiversity](#) held virtually in April 2021 in the lead-up to the [Fifth UN Environment Assembly \(UNEA5\)](#) was the need for greater nature-positive investments. These include halting unregulated land-use change, supporting ecosystem

9 Food Security Information Network and Global Network Against Food Crises, *Global Report on Food Crises 2021* (Rome: World Food Programme, 2021).

10 Chris Gilili, "Extreme' Tactics and Lockdown Buy Rhino More Time", *Mail & Guardian*, March 5, 2021.

11 Liew et al., "International Socioeconomic Inequality".

12 Thais Morcatty et al., "Online Trade in Wildlife and the Lack of Response to COVID-19", *Environmental Research* 193 (2021).

13 Holly Booth et al., "Investigating the Risks of Removing Wild Meat from Global Food Systems", *Current Biology* 31, no. 8 (2021): 1788-1797.

restoration and making food systems nature-positive. Further, the Leadership Dialogue at UNEA5 explicitly recognised that ‘[t]he health of nature and human health are inextricably linked’.¹⁴

In attempts to prevent future zoonotic pandemics, blaming wildlife for the spill-over of zoonoses is misplaced and distracting. Emergence is caused by human activities, most notably habitat destruction in the form of deforestation and proximity to, interaction between and with, and consumption of livestock and wildlife.¹⁵ This tendency has determined that our general approach to pandemics to date has been post facto, based on emergency containment and control after an outbreak has occurred. The more strategic approach would seek to reduce the drivers of pathogen emergence. Identifying potential geographic sites of pathogen reservoirs, as well as how environmental and socioeconomic changes correlate with disease emergence, could predict causal changes with human health impacts. This outlines the so-called ‘One Health’ approach widely promoted by the [World Health Organization](#), among other key players.¹⁶

Bringing human and environmental health concerns together in an integrated response enables governments to develop a multi-sectoral policy and practice strategy. Possibly the most compelling argument for such an integrated One Health approach is that it is estimated to cost just one-hundredth of the damages pandemics produce.¹⁷ Currently, disease surveillance regulations across the spectrum of global wildlife trade are too limited in scope, too dispersed among various agencies, inconsistently applied, and open to evasion through bribery, corruption and other criminal activities. It is critical to embed a One Health approach across national governments, and across national boundaries, to build cross-sectoral and transboundary emergence awareness, and detection and transmission prevention programmes. The capacity to investigate, track and source outbreaks is also key to halting future pandemics.¹⁸

Building the One Health approach into green economic recovery from COVID-19

The analysis of the CITES trade database revealed that ‘international socioeconomic inequality drives trade patterns in the global wildlife market’ and that current efforts to slow

14 UN Environment Programme, “Summary of Key Messages from the Leadership Dialogue: Contribution of the Environmental Dimension of Sustainable Development to Building a Resilient and Inclusive Post-Pandemic World”, February 22-23, 2021.

15 P Daszak et al., *IPBES Workshop Report on Biodiversity and Pandemics* (Bonn: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Secretariat, 2020).

16 “Strengthen ‘One Health Approach’ to Prevent Future Pandemics - WHO Chief”, *UN News*, February 17, 2021; UNEP, *Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies*, Global Synthesis Report (Nairobi: UNEP, 2021).

17 Daszak et al., *IPBES Workshop Report*.

18 Trivedy, “Solving the One Health”.

the global wildlife trade are insufficient.¹⁹ The COVID-19 pandemic has given impetus to improve rapidly the global governance of wildlife trade, given concerns over unsustainable use, IWT and transmission pathways for zoonotics. As a result, the study recommends that the most socially equitable approach would be to offer source countries financial incentives in return for commitments to reduce wildlife trade and enhance governance. This will help to address all three major concerns: 'While imperfect, we believe that incentive-driven policies are an upgrade on existing international agreements on wildlife trade as they may provide source nations with adequate resources for navigating the cultural complexities underlying wildlife harvesting.'²⁰

This suggestion is timely, as countries are developing pandemic stimulus packages. In particular, the mantra of 'green stimulus packages' is at the forefront of such policies, with the intention to inject funding into addressing the triple challenges of climate change, biodiversity loss and human health together. Poorer countries can take advantage of this by committing to outcomes already agreed to under the [UN Sustainable Development Goals](#), [UN Convention on Biological Diversity \(CBD\)](#) and [UN Convention for Combatting Climate Change](#), and insisting that funding promises made under these conventions by developed countries are met.

The CITES analysis revealed that a large percentage of wildlife trade occurs bilaterally between specific pairs of countries. Opportunities thus exist for directing debt-for-nature swaps and the growing arena of biocredits, including payment for ecosystem services and other green financial instruments where bilaterally relevant.²¹ Broadly speaking, poorer countries still harbour most of the world's biodiversity. As a result, not only will directing green funding towards an integrated One Health approach help prevent further zoonotic spill-over, it will also greatly assist in helping poorer nations meet the objectives of the CBD, including clamping down on IWT and improving biodiversity conservation in general. Such directed funding and commitments align with numerous global to national policy agreements. For example, the [CBD's Aichi Target 20](#) explicitly recognised that additional funding was needed for countries that are biodiversity richer yet economically poorer.

It is critical to ensure that relevant proportions of such economic stimuli are directed to those communities hardest hit by pandemic livelihood disruptions and food insecurity wrought by the challenges of climate change and biodiversity loss. This will enable improvements in their health and wellbeing, as well as their involvement in and commitment to the One Health approach. Paying people to protect and benefit from their local wildlife, including through investments in alternative livelihoods (most especially where these livelihoods are linked to wildlife, eg, ecotourism), is the most effective means of reducing both IWT and local consumption and thus reducing pathogen spill-over risk. Fortunately, integrated solutions increasingly recognise the need for improved engagement

19 Liew et al., "International Socioeconomic Inequality".

20 Liew et al., "International Socioeconomic Inequality".

21 Nicholas King, "[Conservation Finance Options to Support African Post-2020 Biodiversity Priorities](#)" (Occasional Paper 325, SAIIA, Johannesburg, 2021).

with rural and indigenous communities to ensure that efforts to protect habitats and end illegal wildlife activities do not penalise them.²²

Conclusion

Addressing the combined environmental challenges of the early 21st century – human health, biodiversity loss and climate change – calls for a more integrated, strategic policy framework than has been achieved to date through various thematic treaties running in parallel. One such framework gaining considerable traction is the One Health approach. This is designed to integrate environmental and human health interventions into a single coherent strategy, whereby the links between environmental destruction, biodiversity loss and human health are identified, recognised and addressed as one. For Africa, the One Health approach provides a consistent, comprehensive and cost-effective platform for taking on these challenges that should be adopted and promoted at national and regional (AU) levels.

22 Global Environment Facility, "[Congressional Briefing: The GEF and the COVID-19 Pandemic](#)", August 5, 2020.

Author

Nicholas King

consults on global change and environmental futures, working with governments, business and CSOs in identifying the main challenges to sustainability and new innovative solutions for the transformative changes the 21st century demands.

Acknowledgement

SAIIA gratefully acknowledges the support of the Swedish International Development Cooperation Agency (SIDA) for this publication.

About SAIIA

SAIIA is an independent, non-government think tank whose key strategic objectives are to make effective input into public policy, and to encourage wider and more informed debate on international affairs, with particular emphasis on African issues and concerns.

SAIIA's policy briefings are intended for use by policymakers, whether in government or business. They are concise, providing a brief analysis of the issue at hand, and make policy recommendations.

Cover image

A wildlife conservationist poses with a cut-out placard bearing the message 'WorthMoreAlive' advocating for an end to elephant poaching, next to some of the illegal stockpiles of elephant tusks stacked up onto pyres at Nairobi's national park, waiting to be burned along with more than a tonne of rhino-horn at what is said to be the biggest stockpile destruction in history, 28 April 2016 (Tony Karumba/AFP via Getty Images)

All rights reserved. Copyright is vested in the South African Institute of International Affairs and the authors, and no part may be reproduced in whole or in part without the express permission, in writing, of the publisher.



Jan Smuts House, East Campus, University of the Witwatersrand
PO Box 31596, Braamfontein 2017, Johannesburg, South Africa
Tel +27 (0)11 339-2021 · Fax +27 (0)11 339-2154
www.saiia.org.za · info@saiia.org.za