



The State of the African Pangolin



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ABBREVIATIONS

ACET Analytical Center of Excellence on Trafficking

AML Anti-Money Laundering

CITES Convention on International Trade in Endangered Species of

Wild Fauna and Flora

COVID-19 Coronavirus Disease 2019

IBM The International Business Machines Corporation

MERS-COV Middle-East Respiratory Syndrome Coronavirus

PMI Phillip Morris International

SARS Severe Acute Respiratory Syndrome

UN United Nations

UNTOC United Nations Convention Against Transnational Organized

Crime

US United States

The illegal trade (trafficking) in pangolins is not just an environmental problem. Pangolin trafficking presents a threat to national, regional and international security.

First, criminal networks involved in pangolin trafficking are also involved in other forms of organised crime such as money laundering, the armstrade, and drugs and human trafficking. The profits made from pangolin trafficking are strengthening organized crime and corruption and weakening good governance. There are even instances where profits derived from pangolin trafficking have been used to finance terrorism-related activities and insurgents. ²

Second, pangolins carry viruses very similar to coronavirus and may have acted as the intermediary or contributing carrier of the virus that led to COVID-19. Whether it did or not, scientist now warn that consuming pangolins can result in human-to-human virus spread. ³ The global community has learned that the resulting pandemic can cost the world billions of dollars in damage and most, if not all, countries have been affected by this outbreak in a financial, social and structural level.

The pangolin itself is not a threat to people. On the contrary, this animal whose only defence is to roll up into a ball, is an anteater, consuming some 70 million ants per year⁴, while simultaneously stirring up soil and adding vital nutrients. It is a rototiller, insecticide and fertilizer all rolled into one.

Pangolins are trafficked for their body parts: their meat, organs and foetuses are served as expensive, exotic food, and their scales are ground into powder to be used as activating ingredients in a variety of traditional Chinese medicines. The Journal of Chinese Medicine claims that: "The Pangolin [Manis Squama/Pangolin *scales*] is classified as salty and cool and as entering the Liver and Stomach channels. It is traditionally used in Chinese medicine to disperse blood stasis (for promoting menstruation and lactation), reducing swelling and promoting discharge of pus (for abscesses and boils etc.) and for expelling wind-dampness (for pain due to rheumatism/arthritis)⁵".

Pangolin scales are hard and can be kept for years in storage without degrading. Organised criminal networks favour population reductions and even extinction of pangolins because it drives up the value of their stockpiled pangolin scales. The scarcity of pangolins in Asia—a direct result of extensive and illegal overharvesting—has driven criminal networks to increasingly target African pangolins.

A cross-border, cross-continental response to pangolin trafficking is badly needed to save pangolins from extinction. Such an effort must include the identification and dismantling of organized crime rings driving the poaching and trafficking, coupled with demand reduction in consumer communities that appear mainly in China and Vietnam, but are also spotted around the world.

Developing a strategy at the height of a crisis does little to eliminate the crisis—it can only mitigate damage. Suppressing pangolin trafficking can only be achieved through proactive measures and a collaborative effort from all stakeholders. Otherwise, pangolin populations will continue to plummet and the species will effectively become extinct in the wild.

This report examines and evaluates current strategies that attempt to counter pangolin trafficking in Africa. While certain strategies are commendable for their goals, all strategies are lacking in robust and sustained implementation.

Pangolins are threatened by poaching, heavy deforestation of their natural habitats, and are consequently the most trafficked mammals in the world.⁶ Their scales command substantial sums on the black market, but their meat, blood and foetuses are also in high demand.⁷

As severe as the crisis is, many people had never heard of the pangolin before COVID. But about a million of these solitary, nocturnal creatures have likely been killed over the last decade alone. The greatest demand for the animals and their parts comes from China, with significant quantities also shipped to Vietnam and Hong Kong.

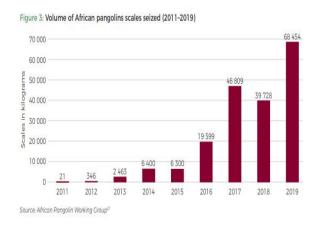
Consumers are found around the world. Over 25,000 pangolin products were seized in the United States between 2004 and 2013. Furthermore, a report published by Human Society International found that pangolin by-products, of a "medicinal" capacity, were available at US online stores.¹⁰

As populations of Asian pangolins continue to decline, traffickers have shifted focus on sourcing the four species of African pangolins. Further to this, according to the Journal of Ethnobiology and Ethnomedicine, there is ethnomedicinal use of pangolin by medical practitioners in

Sierra Leone and most parts of sub-Saharan Africa.¹²

According to D. Challender et al. (2020), between August 2000 and July 2019, the equivalent of an estimated 895,000 pangolins were trafficked globally, making it the most trafficked mammal in the world. ¹³

Scales from more than a million pangolins have been traded globally in the past decade, with seizures by law enforcement surging from 21 kg in 2011 to more than 68,000 kg in 2019.¹⁴



In recent years, pangolin products have been seized in 67 countries and territories across six continents. The animals were transported along 159 unique international trade routes using every imaginable means of transport—sent via large international shipping companies, moved on foot, by motorcycle, car, train, on container ships, speedboats and planes. Most of the air shipments out of Africa routed through Europe. Traffickers shift

trade routes regularly to avoid detection. The largest shipments departed from Nigeria, Sierra Leone, Cameroon, and Uganda.



A seizure of African pangolin scales in Bangkok. (Photo: Freeland)

Economic ties between East Asia and many African nations facilitate this illegal trade. ¹⁶ Logging, mining, drilling and agribusiness projects level forests and create inroads and access points to previously intact habitat all across the African continent, while improved transportation systems and busy trade routes to Asia make trafficking easier.

The demand for pangolins has seen prices rocket from \$11 for a kilogram of scales in the 1990s to more than \$450 today.¹⁷

This number is further confirmed by Freeland (an ACET partner) sources on the ground in both Asia and Africa. The connection between a rise in poaching and trade of pangolins and other wildlife seems to coincide with a larger Chinese presence in Africa.

Further research reveals that Chinese sourcing agents are now competing with Vietnamese sourcing agents inside Africa. A recent study found that hunters in Gabon are selling ever-growing numbers of pangolins to Asian laborers, some of whom work for the sourcing agents on the side.¹⁸ The animals or their parts are then smuggled across remote forested national borders. Local subsistence hunters are not the drivers of this illegal activity. Rather, the trade is conducted by organized poaching gangs that are filling orders placed by traffickers.

Last year alone (2019), Hong Kong and Singapore intercepted three shipments of pangolin scales weighing a combined 33.9 metric tonnes, worth more than \$100 million. ¹⁹ Each shipment was bigger than previous shipments from Africa and they all were traced back to

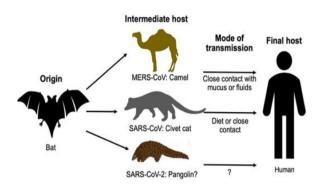
Nigeria, which is now the main hub for gangs trafficking African pangolins to Asia. Traffickers prefer Nigeria because it makes it easier for them to export. Porous borders, lax law enforcement, corruption and one of the continent's biggest ports are all factors that have helped criminal networks in Nigeria corner most of the African trade in pangolins. In 2016, less than a quarter of major pangolin seizures from Africa came via Nigeria. By 2018, two-thirds to three-quarters of the total weight seized was linked back to Nigeria. Page 12.

Another ongoing problem the pangolin faces is the young age they are poached. A study conducted by Ingram D. et at (2017) found that forty-five percent of all African pangolins that are hunted have not yet reached sexual maturity, which drastically reduces reproduction capabilities of the species, resulting in most pangolin species being critically endangered or endangered.²² The increased hunting of pangolins has correlated with the increased selling price of the mammal. Corruption facilitates poaching.

Looming Threat of Zoonotic Diseases

As local habitats for species decline, due to socio-economic development and deforestation, human to wildlife contact becomes more frequent. This inherently leads to human populations being exposed to zoonotic diseases which find their hosts in people who come into some form of contact with a "catalyst" animal that got infected somehow, sometimes by a bat.

SARS, another COVID (COVID-2), was transmitted from bats to people via civet cats. In the case of MERS-COV (Middle Eastern Reparatory Syndrome), it was transmitted to people by bats via camels. ²³ In the case of Ebola it was either the consumption of bushmeat or individuals who were in contact with a catalyst animal itself while still alive²⁴. In the case of COVID-19, there are various theories, many of which point to the pangolin or the



bat, with most pointing to both. The scientific community does agree that whatever animal set of COVID-19, the consumption of pangolins should be avoided because it is now known to be a carrier of corona-like viruses.²⁵

Cleveland S. et Al. (2007) claim that around 60% of human diseases, and around 75% of emerging infectious diseases, are believed to be zoonotic, jumping to people from wildlife. ²⁶

This demonstrates a scientific link between disease and wildlife to the point that any and all wildlife markets globally pose a significant lethal risk to human life.²⁷

What Is being done to address this Issue?

The pangolin's demise has sparked a wave of protection efforts. Biologists scramble to count how many are left in the wild; conservationists lobby to strengthen conservation and enforcement measures; and a U.S. consortium of zoos has launched a controversial captive breeding program.²⁸

In 2016, pangolins were given the highest level of protection under the Convention on International Trade in Endangered Species (CITES), a multilateral treaty signed by 183 nations. ²⁹ All pangolin subspecies are now listed as CITES Appendix I, which prohibits any cross-border commercial trade. But laws and enforcement along the supply chain between Africa and Asia remain weak. The CITES listing has, however, brought much-needed attention to, and some funding for, pangolin conservation.

Pangolin conservation funding has led to improvement in public awareness campaigns and law enforcement efforts to curb poaching and trafficking. But in light of the massive seizures referenced previously, these efforts have, at best, slowed the decline, but come far short of reversing it.

What can be done to save the pangolin?

The most important step governments and civil society can take now to save pangolins is to **enact and enforce** bans on their trade and consumption, support behavior change campaigns, and refrain from buying pangolin products.

Additionally, enforcement efforts must be significantly improved and ramped up if there is going to be any chance of deterring pangolin poaching and trafficking.³⁰

Specifically:

- Skill Building: of Rangers (antipoaching); Police and Customs (counter-trafficking); Prosecutors (prosecution); and Financial crime units (asset seizures).
- Networking: Convening national and cross-border officers that have the authority and jurisdiction to investigate, arrest and seize assets related to pangolin trafficking.
- Commitment: Health, Social and Economic authorities can make a case to close wildlife markets as they pose a threat to human security and economies by posing a health hazard.

Since pangolin poachers and traffickers are often destroying other species too, governments can protect pangolins through **comprehensive** wildlife protection strategies that are adequately resourced to dismantle organized crime.

Governments should also promote awareness of the plight of the pangolin through media and education campaigns.

IT IS CRITICAL THAT SUCH AWARENESS PROGRAMS DO NOT VILLAINIZE PANGOLINS OR ENCOURAGE PEOPLE TO EXTERMINATE THEM TO AVOID VIRUSES.

PANGOLINS WILL NOT SPREAD VIRUSES TO PEOPLE IF THEY ARE NOT POACHED OR TRAFFICKED AND LEFT IN THEIR NATURAL

Police, investigators, prosecutors and judges need training to deal effectively with wildlife crime.

Tackling illegal wildlife trade by "following the money" must be taught and incorporated into their intelligence-led, prosecution-oriented investigations.

Governments should partner with the public, researchers, business and civil society to protect natural resources.

Frontline conservationists suggest larger fines and longer sentences would help to protect pangolins and other endangered wildlife.

Global agreements to combat the illegal trade in pangolins and other wildlife include CITES,³¹ the UN Convention against Corruption³², the UN Convention against Transnational Organized Crime,³³ the African Union³⁴ and the Southern African Development Community³⁵, all of which have strategies to combat illegal wildlife trade. But

implementation lacks funding and is often not coordinated across borders.³⁶

consuming pangolins, because demand stimulates trade.

Range states need to back the CITES' mandate by enacting and enforcing stringent national laws to protect wildlife. Currently, just 17 of 48 pangolin range states have legislation that meets CITES requirements.³⁷ Many pangolin range states do not have strong penalties for wildlife trafficking, or sentencing guidelines, so many wildlife traffickers go unpunished.

Another innovative solution includes the **creation of restitution funds** by tracking and seizing assets derived by criminals from wildlife trafficking. These funds can then be used to finance wildlife protection.

Effective protection of pangolins in Africa will require **unified regional conservation** strategies.³⁸ Done country-by-country, successful protection would take more time than the pangolin can afford. Without political will and proper funding for enforcement, even the best laws will not stop the slaughter. Across their range, enforcement is lacking with most seizures and arrests happening after pangolins are already dead.

Experts also agree that educating local communities and enforcement—and offering tangible rewards for conserving wildlife—is key to preventing poaching and keeping the species alive. ³⁹ There is a particular need to reach out to stakeholders on the ground who live with pangolins, and to populations that are

Strategic Recommendations & Conclusion

In less than a decade, pangolins have gone from virtual obscurity to being widely recognized as an icon of the illegal wildlife trade, due partly to concerted efforts to raise awareness about their plight, and more recently due to COVID news.

Recommendations on how to protect pangolins in the wild include:

- Convene law enforcement at a global scale from supply, transit and destination countries to tackle wildlife trafficking.
- Implement behavior change campaigns aimed at reducing demand for pangolin, meat, scales and derivatives.
- Conduct financial and AML investigations into the organized criminal syndicates that are trafficking pangolins and other species.
- Create a restitution fund based on assets seized from pangolin traffickers to help finance counter-wildlife trafficking efforts.
- Study, identify and amend outdated legislature, as necessary, to make sure punishment is proportionate to wildlife crime and organized crime.
- Shut down wildlife markets to minimize threat of exposure to people from zoonotic diseases in order to prevent outbreaks.

Conclusion

The most trafficked mammal in the world merits our protection now more than ever. The illegal wildlife trade

poses a threat to human security on many fronts: it helps fund organized crime and terrorism which threaten national security; it strengthens illegal networks that threaten good governance; and it threatens public health and economic security by spreading zoonotic diseases globally. The economic damage caused by the coronavirus outbreak is immense, yet political will for addressing illegal wildlife trafficking remains low.

Convening international law enforcement efforts remain a priority in order to understand and destabilize global supply chains, find their money, and provide stakeholders the tools necessary to combat illegal wildlife trafficking.

Behaviour change campaigns should now target consumers to reduce demand for pangolins.

Restitution funds should be created globally to restore damage done to the ecosystem, fund frontline organizations which work on counter wildlife trafficking and to equip law enforcement with the necessary skills and equipment.

In short, wildlife crime must be regarded as a national security issue because of its links with the threat of zoonotic diseases, corruption, money-laundering and other types of syndicated, global crime.

REFERENCES

¹Illegal Wildlife Trade Conference: London (2018) https://www.gov.uk/government/topical-events/london-conference-

on-the-illegal-wildlife-trade-2018

Wildlife and drug trafficking, terrorism, and human security. Vanda Felbab-Brown, Brookings, November 8, 2018 https://www.brookings.edu/articles/wildlife-and-drug-traffickingterrorism-and-human-security/

Coronavirus: Pangolins found to carry related strains. Helen Briggs, BBC, March 26, 2020 https://www.bbc.com/news/scienceenvironment-52048195

10 Facts about World Pangolin Day. Elly Pepper, NRDC, February 13, 2018

https://www.nrdc.org/experts/elly-pepper/10-facts-about-pangolinsworld-pangolin-day

5 Pangolin use in traditional Chinese medicine, The Journal of

Chinese Medicine <a href="https://www.jcm.co.uk/news/pangolin-use-in-use

A struggle to Save the Scaly Pangolin. Emilia Goode, The New York Time, 1 May, 2016 https://qz.com/795459/the-pangolin-theworlds-most-trafficked-mammal-is-finally-a-highly-protected-

International Trade in the pangolin, the world's most trafficked mammal, has finally been banned. Echo Huang, Quartz, September 26, 2016 https://qz.com/795459/the-pangolin-theworlds-most-trafficked-mammal-is-finally-a-highly-protected-

Scale of pangolin slaughter revealed – millions hunted in central Africa alone. Damian Carrington. The Guardian, 20 July, 2017 https://www.theguardian.com/environment/2017/jul/20/scale-ofpangolin-slaughter-revealed-millions-hunted-in-central-africa-alone global Investigation: Pangolins: Trafficked to Extinction. Xu

Jianming et al., Global Environment Reporting Collective, Premium Time SG, September 25,

2019https://www.premiumtimesng.com/investigationspecialreports/354134-pangolins-trafficked-to-extinction.html

Legal action initiated to force Trump administration to halt U.S. pangolin trade. Human Society International. November 13, 2019 https://www.hsi.org/news-media/notice-of-intent-to-sue-filed-trumpadministration-pangolin-trade/

11 Pangolin Products Available Online in the United States.

Humane Society International. February 6, 2015 https://www.hsi.org/wp-content/uploads/assets/pdfs/reports/2015/HSI-Report-Pangolin-

Products-US-Feb-2015.pdf

12 Boakye M. et al (2014) Ethnomedical use of African pangolins by traditional medical practitioners in Sierra Leone, Journal of Ethnobiology and Ethnomedicine

https://ethnobiomed.biomedcentral.com/articles/10.1186/1746-4269-10-76

The state of the st

Trade and Trafficking in pangolins, 1900-2019, Pangolins, Science, Society and Conservation, Biodiversity of World, Conservation from Genes to Landscapes 2020. Pp 259-276 A question of scales: Assessing strategies for countering illegal trafficking of pangolin in Africa. Richard Chelin. Enact Africa. 6 November, 2019, https://enactafrica.org/research/policy-briefs/aquestion-of-scales-assessing-strategies-for-countering-illegal-

trafficking-of-pangolins-in-africa

I5
Africa's Pangolins caught in 'the perfect storm'. Alexis Kriel. Oxpeckers, May 6, 2019 https://oxpeckers.org/2019/05/africas-

pangolins/
The Global Trafficking of Pangolins: A comprehensive summary of seizures and trafficking routes 2010-2015. S. Heinrich et al. December, 2017

https://www.traffic.org/site/assets/files/1606/global-pangolin-

assessment.pdf

17
Pangolins: What are they, why are they so endangered and what can we do to help? Lizzie Dearden. Independent, March 4,

https://www.independent.co.uk/environment/nature/pangolinswhat-are-they-why-are-they-so-endangered-and-what-can-we-doto-help-10085887.html

18
New study sheds light on illegal global trade of pangolins.

University of Sterling. February 17. 2018 https://www.stir.ac.uk/news/2018/02/new-study-sheds-light-onillegal-global-trade-of-pangolins/

 19 Nigeria becomes Africa's staging ground for illegal pangolin trade with Asia. Paul Carsen. Reuters, September 19, 2019 https://af.reuters.com/article/topNews/idAFKBN1W40TC-OZ.

Nigeria becomes Africa's staging ground for illegal pangolin trade with Asia. Paul Carsen. Reuters, September 19, 2019 https://af.reuters.com/article/topNews/idAFKBN1W40TC-OZATP

Nigeria becomes Africa's staging ground for illegal pangolin trade with Asia. Paul Carsen. Reuters, September 19, 2019 https://af.reuters.com/article/topNews/idAFKBN1W40TC-OZATP

Ingram. D et al. (2017) Assessing Africa-Wide Pangolin Exploitation by Scaling Local Data. Society for Conservation of Biology

https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12389

John S. Ji (2020) Origins of MERS-CoV, and lessons for 2019nCOV The Lancet Planetary Health

https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30032-2/fulltext

Cunningham H. et al. (2015) Ebola and bushmeat: Myth and reality. NWFP Update

https://www.researchgate.net/publication/276937390_Ebola_and_ bushmeat myth and reality

Liu P. et al. (2019) Viral Metagenomics Revealed Sendai Virus and Coronavirus Infection of Malayan Pangolins (Manis iavanica). Viruses.

https://www.ncbi.nlm.nih.gov/pubmed/31652964

Cleveland, S. et al (2007) Overview of pathogen emergence: which pathogens emerge, when, where and why. Current Topics in Microbiology and Immunology 315:85-111

Ye Yi et al (2020), COVID-19: what has been learned and to be learned about the novel coronavirus disease. International Journal of Biologic Sciences 2020; 16(10):1753-1766 http://www.ijbs.com/v16p1753.htm

28
Controversial Copenhagen Zoo Official: Zoos are Selling Disney

'Fairy Tales' Christine Dell'Amore National Geographic. June 28, 2014 https://www.nationalgeographic.com/news/2014/6/140626copenhagen-zoo-euthanasia-marius-giraffe-conservation-science/

Pangolins of the brink as Africa-China trafficking persists unabated. Sharon Guynup. Conservation Action Trust. 8 May, 2018. https://conservationaction.co.za/recent-news/pangolins-onthe-brink-as-africa-china-trafficking-persists-unabated/

Pangolins of the brink as Africa-China trafficking persists unabated. Sharon Guynup. Conservation Action Trust. 8 May, 2018 https://conservationaction.co.za/recent-news/pangolins-on-

the-brink-as-africa-china-trafficking-persists-unabated/ 31 Convention on International Trade in Endangered Species of Wild Fauna and Flora www.cites.org

³² United Nations Convention Against Corruption

https://www.unodc.org/unodc/en/corruption/uncac.html
33 United Nations Convention Against Organized Crime and the Protocols Thereto https://www.unodc.org/unodc/en/organizedcrime/intro/UNTOC.html

African Union https://au.int/

35 Southern African Development Community https://sadc.int

 $^{\rm 36}$ Organized crime threat to endangered pangolin requires urgent government action. Ben Harris. ENACT. 6 November, 2019 https://enactafrica.org/press/press-releases/organised-crime threat-to-endangered-pangolin-requires-urgent-government-action 37

Henrich H. et al. (2016) Where did all the pangolins go? Global Ecology and Conservation. Vol. 6/ Pp: 241-253 https://www.sciencedirect.com/science/article/pii/S2351989416300

Pangolins of the brink as Africa-China trafficking persists unabated. Sharon Guynup. Conservation Action Trust. 8 May, 2018.https://conservationaction.co.za/recent-news/pangolins-onthe-brink-as-africa-china-trafficking-persists-unabated/
Pangolins of the brink as Africa-China trafficking persists

unabated. Sharon Guynup. Conservation Action Trust. 8 May, 2018.https://conservationaction.co.za/recent-news/pangolins-onthe-brink-as-africa-china-trafficking-persists-unabated/

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Analytical Center of Excellence on Trafficking ("ACET") Using Data to Combat Trafficking and Power Recovery

Every corner of our globe serves as a source, transit or destination for transnational criminal networks trafficking in people, wildlife, arms and other illegal "commodities".

Trafficking impedes development of good governance, good business, and cross border cooperation. Hundreds of billions of dollars are derived each year from trafficking, thus empowering organized crime and corruption, undermining legitimate businesses, and threatening human rights and the environment.

To mitigate trafficking, governments, corporations and civil society require reliable insights to guide effective enforcement, policies, prevention, and recovery strategies.

Powered by IBM and Cellebrite digital intelligence technology, as well as frontline civil society networks, the Analytical Center of Excellence on Trafficking (aka ACET, pronounced "asset") is an open source data fusion center that helps stakeholders make sound and timely decisions that reduce trafficking, thereby saving time, money and lives.

Using evidence analyzed by artificial intelligence technology and subject matter experts, ACET bridges data holders with lawmaker and enforcers, and spotlights trafficking problems and solutions for:

- Border authorities: to identify real time trends in illicit commodity trafficking;
- Investigators: to track and seize assets derived from trafficking;
- Lawmakers: to strengthen and streamline laws and policies to mitigate trafficking;
- Behavior change specialists: to identify social and economic drivers of trafficking;
- Corporations: to ensure compliance with laws and socially minded business.

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