



Summary of WCS Policy and Messaging on COVID-19

Overarching Position¹

To prevent future major viral outbreaks such as the COVID-19 outbreak, impacting human health, well-being, economies, and security on a global scale, WCS recommends stopping all commercial² trade in wildlife³ for human consumption (particularly of birds and mammals) and closing all such markets⁴.

What Governments and Society Need to Do Now

The only effective, practical and cost-efficient way to significantly reduce the risk of a future zoonotic pandemic caused by viral spillover from wildlife to humans is to stop all commercial trade in wildlife, particularly of birds and mammals, for human consumption.

Governments across the globe need to permanently close markets that commercially trade in wildlife for human consumption. Further efforts need to be made to fully understand and evaluate the risks of the commercial pet trade, in terms of disease transmission and risks to public health, and to act accordingly.

Rigorous enforcement of existing laws, regulations, and international treaties that deal with wildlife trade and markets is critical and necessary, but this is simply not enough. The conditions for viruses to emerge and be transmitted to humans occur in legal and sustainable trade and markets with common species as much as in illegal and/or unsustainable trade and markets. Policies focused on protected species, illegal practices, and wildlife trafficking are vital from a conservation perspective, but will fail to prevent future zoonotic pandemics. A new paradigm is needed if we are to avoid a pandemic such as the one we are experiencing today.

Background: Health

- Pathogen spillover from wildlife hosts to humans occurs at ever-increasing interfaces as we humans encroach upon and destroy wildlife habitats. Markets trading and processing live animals or fresh meat from wildlife species represent a high-risk super-interface due to the large number of admixed species and their potential to shed and share viruses for extended periods prior to on-site slaughter or onward sale. Based on the presently available data, the SARS-CoV-2 virus, which causes COVID-19, is presumed to have spilled over at a wildlife market interface. The ancestral host is most likely one of the horseshoe bat species. The intermediary or amplification host is unknown at this time.
- There are substantial human health risks from the trade in wildlife and this risk is markedly increased along the trade chain from source to market. Other issues exacerbate this, including the numbers of animals involved, stresses on animals, and mixing of domestic and wild animals. This is generally

¹ Please refer to Annex I for more details on terms.

² An activity can be considered as *commercial* if its purpose is to obtain economic benefit (whether in cash or otherwise), and is directed toward sale, resale, exchange, or any other form of economic use or benefit.

³ In this document, *wildlife* refers to mammals, birds, reptiles, and amphibians of wild origin, whether removed directly from the wild or born or bred in captivity.

⁴ *Markets* should be considered in the broadest terms, including physical markets, e-commerce, etc.

independent of whether or not animals are threatened under domestic or international law; whether or not an individual animal was removed from the wild or born/bred in captivity; whether or not the trade is legal or illegal; and whether or not the removal of animals from the wild was sustainable. Therefore, in addition to closure of markets for human consumption, governments and experts should look closely at the health risks posed by the trade in live animals for commercial pet markets.

- In 2018, the World Health Organization added ‘Disease X’: ‘... a serious international epidemic caused by a pathogen currently unknown to cause human disease’ to its priority watch list⁵. Today Disease X has arrived and firmly established itself as the COVID-19 pandemic. It came as no surprise to the One Health community. In 2008 Jones et al.⁶ reported that the frequency of viral spill-over from wildlife was increasing significantly in the past decades. Researchers repeatedly warned the global community of the massive health and economic impacts of a viral spill-over and subsequent pandemic. Translating science into policy and action on preventing the predicted pandemic failed at that time; we must not let it fail again.

Background: Wildlife Trade

Wildlife is traded around the world for use as meat, pets, skins, traditional medicine, or private collections. Animals from a wide range of species are sourced from across the globe and include those trapped from the wild or sold from captive breeding facilities. From source to market, the wildlife supply chain (both legal and illegal) involves conditions that present a high risk for the emergence and transmission of zoonotic pathogens which could potentially cause future pandemics such as COVID-19, as evidenced by SARS, H5N1, and MERS⁷. At this time, the priority is wildlife traded commercially for human consumption, but it is important to fully examine and address the risks posed by the commercial pet trade as well.

- Millions of animals are commercially traded every year, either through extraction from the wild and transportation to urban centers across the globe, or by being bred in sometimes poorly regulated commercial facilities. Some trade, such as international trade in threatened and potentially threatened species, is regulated by CITES⁸, but CITES does not address the impacts of these live animals, after they are traded.
- The wildlife trade poses a significant risk of disease transmission to people, livestock, and wildlife in countries of transit and import, independent of their origin in the wild or in breeding facilities. This threat from commercial trade for human consumption is generally independent of whether or not animals are threatened under domestic or international law; whether or not an animal was removed from the wild or born/bred in captivity; whether or not the trade is legal or illegal; and whether or not the removal of animals from the wild was sustainable.
- Although the risks from wildlife traded for purposes of human consumption are greater, there are also significant risks from wildlife traded for use as pets. The ad-mixing in many market interfaces of animals being sold for different purposes (e.g. food and pets) and of domestic and wild species also generates appreciable threats.
- The risk of spillover events is continuously increasing due to augmented contact rates between humans, wildlife and livestock driven by anthropogenic land-use changes, increased access to formerly intact wild areas through roads and rail, and extraction of natural resources. The escalation from

⁵ <https://www.who.int/activities/prioritizing-diseases-for-research-and-development-in-emergency-contexts>

⁶ Jones, K., Patel, N., Levy, M. *et al.* Global trends in emerging infectious diseases. *Nature* 451, 990–993 (2008).

⁷ K.J. Olival, P. Hosseini, C. Zambrana-Torrel, N. Ross, T. Bogich, P. Daszak. 2017. Host and viral traits predict spillover from mammals. *Nature* doi:10.1038/nature22975.

⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora (www.cites.org)

spillover to pandemic is heightened by rampant globalization, an unrestrained growth-based economy, and increased income and purchasing power in urban areas in many parts of the world.

- Rigorous enforcement of existing laws, regulations, and international treaties (such as CITES) that deal with international wildlife trade, and treating wildlife crime as serious crime, are critical and necessary but not sufficient. A new paradigm is needed.

The Importance of Protecting Nature for Indigenous Peoples and Local Communities for Food Security

Our recommendations do not pertain to subsistence hunting by Indigenous Peoples and local communities for household consumption, for whom there are often few or no other sources of protein. Closure of commercial trade and markets for live wildlife addresses the needs and safety of these communities:

- From a public health perspective, the use of wildlife for subsistence should be limited to the needs of Indigenous Peoples and local communities for whom other sources of protein are generally not available, and others hunting for their own consumption. Once a mammal or bird enters a commercial supply chain the risks of viral emergence and transmission increases⁹.
- Closing the commercial trade in birds and mammals will benefit local communities that are dependent on wild meat, by ensuring the animal protein is available for their food security (as people in urban areas are able to obtain sufficient protein, often more cheaply, from either domestic animals, fish, or plant sources).
- Any commercialization and resultant consumption of wild meat, especially in urban areas, anywhere in the world, is a significant risk to global health and security, and should end.
- If people are eating wild birds and mammals because they have no alternatives then we need to make sure that they have access to sustainably produced poultry, fish, invertebrates in some cases, and plant protein, which will provide families with a reliable and sanitary source of high quality, protein rich food, and reduce the risk of exposure to novel zoonotic pathogens.

⁹ Governments could allow for very limited domestic trade, which should be evaluated on an individual basis – e.g. the development and presence today of a small and limited local trade in caiman meat in Bolivia is accompanied with significant sanitary measures and surveillance.

Annex I: Terms

- **Why birds and mammals in particular?** There is no risk-free trade and consumption of wild animals, whether they are wild-caught or farmed, yet viral surveillance has shown that there are differences in levels of pathogen presence between different taxa, the highest risk being in birds and mammals, but there are also risks from trade and/or consumption of reptiles and amphibians. At this time, we are recommending a focus in particular on birds and mammals.
- **Commercial Trade:** We use the term ‘Trade’ to include a number of actions along the supply chain that present the highest risks of viral emergence/transmission including: capture or killing, commercial captive breeding, transport, buying, selling, storing, processing, and consumption. That includes both domestic and international trade. Many countries host physical markets where many of these activities take place and these should be a particular focus for enforcement. The following definition from CITES¹⁰ should serve as guidance: “An activity can generally be described as ‘commercial’ if its purpose is to obtain economic benefit (whether in cash or otherwise), and is directed toward resale, exchange, provision of a service or any other form of economic use or benefit.”
- **Illegal trade:** The illegal wildlife trade, involving hundreds of thousands of animals, poses a significant risk to human health as well and is driven by ongoing demand and markets across the globe. Governments have significant challenges in handling and housing live animals that are seized and confiscated through enforcement efforts, and those challenges include dealing with disease risks. Wildlife crimes should no longer be considered as a low-priority by enforcement and judicial agencies. Governments must urgently scale up efforts to combat this global crime, but focusing on illegal trade alone will not be sufficient to prevent future pandemics.
- **Resources, ending trade:** COVID-19 has shown the massive harmful impacts to economies and society of trade in wildlife for food markets, particularly for mammals and birds. Governments should properly resource (staff, budgets, equipment, technology) relevant agencies and hold them accountable to take effective action to end this trade, to the same extent as done with drug trafficking.

¹⁰ Resolution Conf. 5.10 (Rev. CoP15), para 1(b): <https://www.cites.org/sites/default/files/document/E-Res-05-10-R15.pdf>