

COVID-19 and WWF

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COVID-19 has sparked a worldwide crisis. While there is much we do not yet know about the disease, the World Health Organization has determined that COVID-19 is a zoonosis, meaning it originated from an animal and spilled over into the human population. Experts believe the initial outbreak occurred in a "wet market" in Wuhan, China where numerous species of wild and domestic animals were sold for human consumption.

Tragically, this comes as no surprise. Zoonoses can be the devastating fallout of wildlife trade and consumption, environmental degradation, and short-sighted policies that fail to fully address these issues.

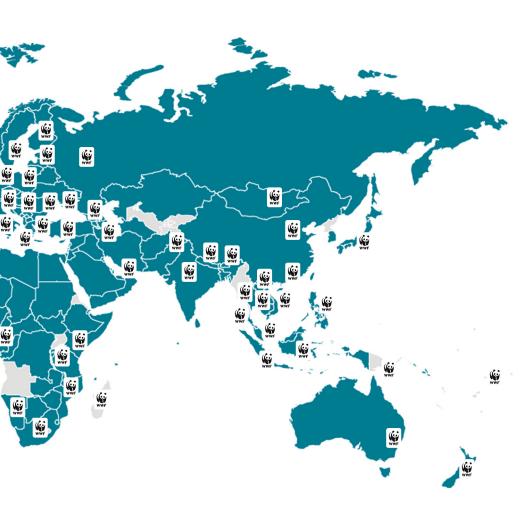
Zoonoses like COVID-19 occur around the world, at the intersection of people and wildlife—and that is exactly where WWF conducts our work. In this critical time, our mission takes on even greater urgency.

WHY WWF?

- WWF is a recognized leader on wildlife trafficking. Working in nearly 100 countries, our unique network and local knowledge is invaluable for dismantling the chain of wildlife crime from source countries (often in Africa) to destination markets (often in Asia). WWF's long curriculum vitae on wildlife trade includes co-founding the wildlife trade monitoring network <u>TRAFFIC</u>, bringing together e-commerce giants in the <u>Coalition</u> to End Wildlife Trafficking Online, and working with governments to stop wildlife crime at all levels, from source to market.
- WWF's approach to conservation is grounded in the benefits nature provides to people, making human health deeply relevant to our core values. We work around the world to keep ecosystems intact that provide critical benefits and livelihoods—and mitigate zoonotic spillover, climate change, and species loss. Our work on deforestation encourages communities, companies, and governments to recognize forests as the cornerstone of a healthier, more sustainable future.
- WWF is a science-based organization, committed to providing the critical information conservationists, policymakers, companies, and communities need to make long-lasting, systemic changes. WWF looks to our in-house team of scientists—including leading experts in wildlife science, forest health, food systems, and more—to lay the foundation for our conservation strategies.



Map 1: Countries with confirmed COVID-19 cases and countries where WWF has a presence. Source: Center for Disease Control and World Wildlife Fund



WHAT WWF IS DOING

We need science-driven, holistic strategies that address the drivers and catalysts of emerging infectious disease. These include ending the trade and consumption of high-risk species like bats and primates, reducing environmental degradation that heightens the risk of zoonoses spilling over into humans, pursuing sustainable livelihoods and food systems (particularly livestock) that safely meet the needs of people and nature, and changing the entrenched behaviors that perpetuate all of these risk factors.

WWF is already working in many of these areas. We understand the conditions that make outbreaks like COVID-19 possible—and the immediate needs where our expertise will make the greatest impact today. **We need to:**

ELIMINATE HIGH-RISK WILDLIFE MARKETS

Removing the immediate threat of market-based viral transmission is an urgent priority. This entails closing markets, reducing demand, and shutting down any trade or consumption of high-risk species.

INTEGRATE FOREST CONSERVATION INTO HUMAN HEALTH

Forests have a profound effect on global health. Keeping them intact and providing benefits and livelihoods to people is the first line of defense against emerging infectious disease.

CONDUCT SCIENTIFIC RESEARCH TO GUIDE THE WAY FORWARD

To make a lasting impact on widespread, culturally- and economicallydriven practices, we need to study their drivers and create a datadriven roadmap to a safe, sustainable, and equitable future.

SUPPORT COMMUNITIES DEPENDENT ON CONSERVATION TOURISM

Tourism is an essential component of many community-based conservation programs. Without this crucial income and incentive, communities are faced with difficult choices between protecting nature in the hope of sustaining their income, or exploiting wildlife and other resources to survive.

ELIMINATING HIGH-RISK WILDLIFE MARKETS

China banned wildlife consumption for food after the outbreak of COVID-19, but high-risk wildlife markets and trade persist in many countries, particularly in Southeast Asia and parts of Africa. Wildlife markets fill some legitimate needs for food, as well as cultural demands for delicacies, medicine, and status symbols. While not all are dangerous, markets selling high-risk species in unsanitary conditions create a perfect storm for zoonotic disease transmission and the emergence of the next pandemic.

Until recently, many people were not aware of the threat these markets pose to human health. Following the emergence of COVID-19, public awareness has risen dramatically—and so has the desire to shut down these markets.

In early March, WWF commissioned a study that interviewed 5,000 people in Japan, Hong Kong, Myanmar, Thailand, and Vietnam to gauge public opinion on wildlife markets, trade, and consumption.

93% of respondents in the countries with active wildlife markets (Hong Kong, Myanmar, Thailand, and Vietnam) said they would support action by their government to close all illegal and unregulated markets selling wild animals.

WWF is helping to leverage the public interest in closing high-risk wildlife markets through a combination of government policy and enforcement, consumer research and public awareness, and science.

THE EMERGENCE OF ZOONOTIC DISEASES IS OFTEN ASSOCIATED WITH ENVIRONMENTAL CHANGES OR ECOLOGICAL DISTURBANCES, SUCH AS AGRICULTURAL INTENSIFICATION AND HUMAN SETTLEMENT, OR ENCROACHMENTS INTO FORESTS AND OTHER HABITATS.

UNEP Frontiers Report Emerging Issues of Environmental Concern



URGING GOVERNMENTS IN SOUTHEAST ASIA AND BEYOND TO QUICKLY CLOSE HIGH-RISK WILDLIFE MARKETS AND ADOPT PROHIBITIONS SIMILAR TO CHINA

WWF has provided evidence that the public is overwhelmingly in favor of closing dangerous markets. We have offered our expertise to governments we work with in Southeast Asia to help translate that information into sound policies backed by effective law enforcement and demand reduction efforts. WWF has decades of experience advising governments and influencing policies on wildlife trade, from international CITES regulations to China's 2018 ban on ivory.

\$5,000,000

REDUCING CONSUMER DEMAND FOR WILDLIFE PRODUCTS

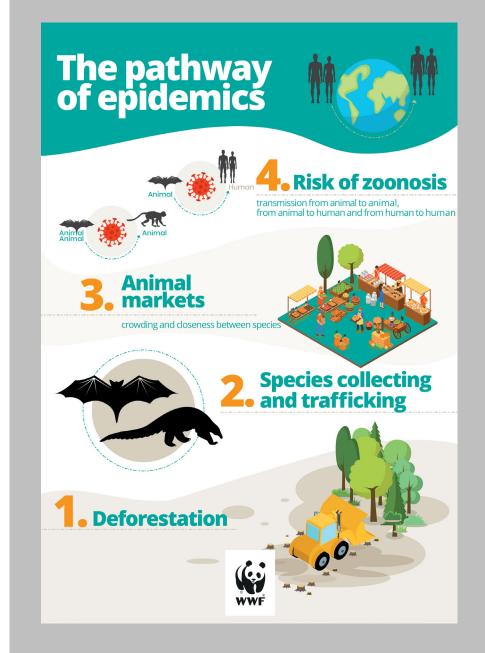
Gauging consumer behavior and public opinion is a key first step toward changing the behavior that fuels these markets. WWF has used research like this to design targeted strategies (e.g., celebrity engagement, warnings at key transaction points) for reducing ivory consumption in China. We will take a similar approach to shifting consumers away from consuming high-risk wildlife, working with corporate partners, social scientists, and governments on high-profile public engagement campaigns.

\$3,000,000

CALLING FOR THE US GOVERNMENT TO STRENGTHEN ITS OWN WILDLIFE TRADE POLICY AND ENFORCEMENT EFFORTS

WWF is urging the US government to push for high-risk market closures through diplomatic channels. WWF is calling for the US government to strengthen policies around wildlife trafficking, highrisk species, and disease transmission and to increase resources for tackling wildlife trade issues in the US and abroad.

\$650,000



INTEGRATING FOREST CONSERVATION AND HUMAN HEALTH

According to the latest research, land use change is the biggest underlying risk factor to humans for Ebola, Zika, and other infectious diseases.

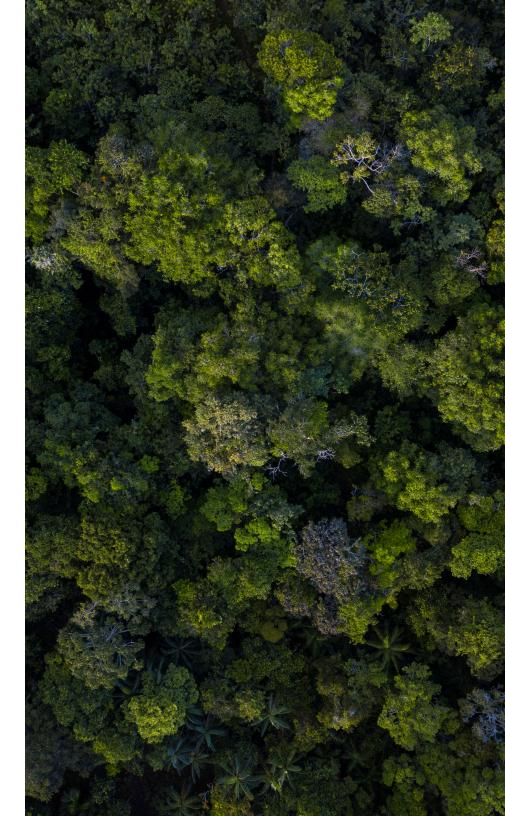
Forests are hotbeds of biodiversity, much of which is unknown and microscopic. As people deforest and degrade these ecosystems to meet the demands of the growing human population, people and pathogens come into closer proximity, and altered ecosystems are less able to self-regulate the presence of disease. Viruses encounter new hosts in livestock or people, heightening the potential for disease outbreaks.

WWF's work is rooted in the benefits nature provides to people. In addition to the many obvious human health benefits forests provide—food, medicine, clean air, mental health—research indicates that preventing deforestation could be a critical and cost-effective means for preventing disease outbreaks. Yet research on this connection is limited, with hardly any attention paid to integrating large-scale conservation into human health interventions.

In key areas where forests contribute to improved health outcomes for people, WWF is catalyzing large scale forest conservation with government, business, and commuity stakeholders that have public health interests. Our research advances a holistic approach to environmental, animal, and human health and helps identify credible solutions for people and nature.

HUMAN HEALTH AND THE HEALTH OF OUR ENVIRONMENT ARE INEXTRICABLY LINKED. OUR ABILITY TO AVERT DISEASE IS FULLY CONNECTED TO HOW WE INTERACT WITH NATURE.

Alex Batka, Senior Specialist for Global Science at WWF



BUILDING THE SCIENTIFIC EVIDENCE FOR LINKS BETWEEN FORESTS AND HEALTH

Over the last year, WWF and partners have been studying the nexus between forests and health topics such as disease, malnutrition, psychological health, physical hazards, and medicinal use. We are putting this research to use in deforestation hotspots, embedding science to make the case for appropriate forest protection as a public health measure and garner political support. We are also assessing how best to incorporate health and disease regulation into widely used conservation planning tools like InVEST models and Science-Based Targets.

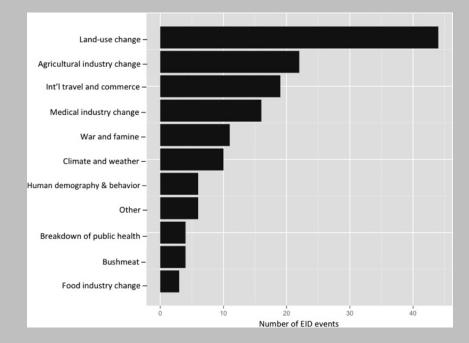
\$750,000

HALTING DEFORESTATION IN HOTSPOTS

Stopping deforestation in areas identified as potential hotspots for emerging zoonotic disease can reduce risks to human health. WWF is currently part of <u>REDD+</u> (Reducing Emissions from Deforestation and Degradation) initiatives and <u>integrated landscape approaches</u> to halt deforestation in five hotspots: Brazil, Colombia, Peru, Malaysia, and Myanmar. These collaborative, multi-stakeholder approaches align the interests of governments, local communities, and corporations to secure deforestation-free supply chains and sustainable forest management.

\$1M - \$5M Per Landscape

Drivers of emerging infectious diseases from wildlife



BUILDING THE SCIENTIFIC FOUNDATION FOR CHANGE

As a leader in science-driven conservation, WWF is immediately organizing the scientific community to call for action around closing high-risk wildlife markets. WWF is also looking ahead to the longer term, conducting research that will ensure we take <u>the right next steps</u> to keep people and nature healthy.

WWF scientists are studying the economic, ecological, and social drivers of emerging infectious disease such as land use, food systems, governance, wildlife trade and consumption, and climate change. Solid science will help us better understand where emerging infectious diseases fall in relation to other threats and priorities and how WWF can best mitigate future pandemics through conservation strategies. This research will form the foundation of a scientifically credible and strategic response to COVID-19 and inform our next steps.

A BETTER UNDERSTANDING OF HOW OUR ECOSYSTEMS FUNCTION - AND IN PARTICULAR THEIR ROLE IN DEFENDING US FROM THE SPREAD OF DISEASES - IS FUNDAMENTAL TO UNDERSTAND THE IMPORTANCE OF PROTECTING AND MANAGING THEM BETTER; SO AS TO AVOID HAVING TO RUN FOR COVER AT A LATER DATE, TO REBUILD AND RESTORE BALANCES AND ECOLOGICAL PROCESSES CRUCIAL TO OUR HEALTH PREVIOUSLY DESTROYED.

WWF Ecosystem Destruction and the Rise of Pandemics



AMPLIFYING THE VOICE OF GLOBAL EXPERTS

WWF is organizing joint action by wildlife health, zoonotic disease, and public health experts, including a sign-on letter calling for the closure of high-risk wildlife markets, as well as calls for other global and domestic policy changes.

\$45,000 (FUNDED)

INVESTIGATING THE DRIVERS OF ZOONOTIC DISEASE

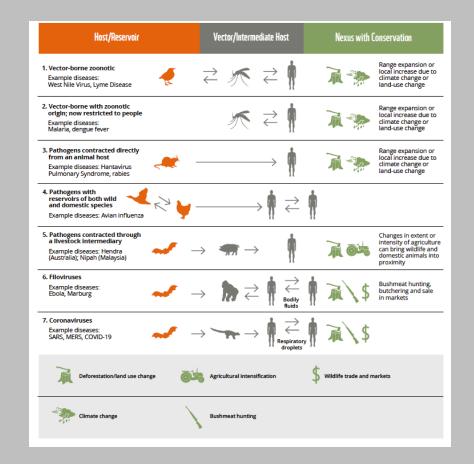
The emergence of infectious diseases is driven by complex and interrelated factors like land use, food systems, and cultural practices. To prevent the next pandemic, we need to understand and address them. WWF is analyzing the underlying systems that perpetuate zoonotic disease transmission, including strong cultural demand for wildlife products and the protein needs of rural and impoverished communities.

\$600,000

ESTABLISHING LONG-TERM BEHAVIOR CHANGE PROGRAMS

Evidence from past zoonotic disease outbreaks like Ebola indicate that many wildlife markets may re-open after the immediate threat of disease passes. With the participation of social scientists, governments, and other partners, WWF will develop long-term, research-based consumer engagement interventions to change the entrenched behaviors that drive wildlife trade and consumption. This includes working with global health organizations to ensure pandemic mitigation programs include funding to reduce demand for wildlife.

\$825,000



SUPPORT COMMUNITIES DEPENDENT ON CONSERVATION TOURISM

COVID-19 has devastated the global tourism economy, bringing travel to a near-halt. For remote communities depending on conservation tourism for their income, the next few months are critical to saving not only livelihoods but decades of conservation gains.

WWF has worked with communities around the world for many years to develop conservation tourism as a viable livelihood that balances the interests of people and nature. Wildlife watching, safari lodges, and small businesses like homestays and handicrafts provide jobs and other benefits, incentivizing communities to protect wildlife and habitat.

Without their main source of income, communities like these may now face difficult choices. No tourism dollars means no funding for conservation measures like community game guards. As security lapses and economic alternatives dwindle, local people are more likely to turn to poaching, and poachers from other areas are more likely to move in.

This shift not only undermines years of community-based conservation; if wildlife is decimated, communities' entire way of life could collapse. WWF has spent years working with local institutions to offer training and development support for agriculture, business, health, and education. If local partners lose funding or capacity, these essential support networks could founder. WWF is providing emergency funding to sustain communities and wildlife, and keep conservation tourism afloat.

WHEN WWF CAME TO NAMIBIA, COMMUNITY MANAGEMENT OF WILDLIFE AS AN ECONOMIC ASSET WAS A REVOLUTIONARY IDEA. AS PEOPLE BEGAN TO BENEFIT SOCIOECONOMICALLY, THE IDEA TURNED INTO A POWERFUL INCENTIVE FOR COMMUNITY CONSERVATION

Chris Weaver, Manging Director, Namibia Program

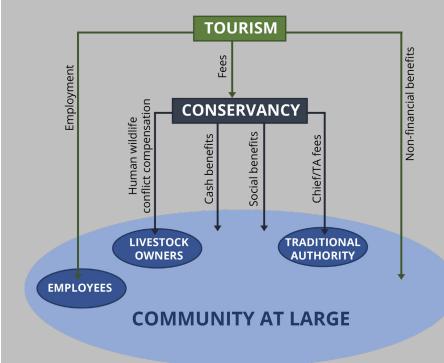


SUPPORTING NAMIBIA'S COMMUNAL CONSERVANCIES

Namibia's communal conservancies provide life-sustaining income and benefits for more than 222,000 people. The conservancy system has empowered some of Namibia's most impoverished rural communities to manage their land and wildlife sustainably, precipitating remarkable recoveries in populations of lions, rhinos, cheetahs, giraffes, and more. In turn, over the last three years, the conservancies generated a collective \$10 million annually in revenue, wages, and other benefits like health clinics and kindergartens. More than 60% of this income comes from tourism.

In the wake of COVID-19, Namibia's 86 community-run conservancies stand to lose nearly \$4 million in wildlife tourism revenue—critical funding needed to keep 700 community game guards and 300 support staff employed and engaged in conservation. Hundreds more conservancy members are at risk of losing jobs with tourist lodges. Without emergency funding, the conservancies and wildlife tourism industry WWF has spent years building up are in jeopardy, and so is the iconic wildlife that the system protects. Our first priorities are to keep community rangers on the job and compensate the hardest-hit communities, conservancies, and small-scale enterprises for lost jobs and revenue.

\$1,000,000





WHAT NOW?

There are many vital actions needed to secure a future for nature, people, our economies, and health, but reducing the immediate threat of market-based viral transmission potential, protecting forests and human health, and building the scientific roadmap are part of a first phase of action. The subsequent phase for the longer-term health and prosperity of humanity will take a major shift in how we think about and maintain the living planet around us. As nature is lost and disrupted, the likelihood of pandemics and other disease outbreaks increases. Protecting nature will help prevent future pandemics and is therefore preventative healthcare, with greater global security and economic stability.

If you would like to join us in this timely effort, we welcome your partnership.

THANK YOU

A healthy planet is the foundation of healthy people. Thank you for your interest in supporting WWF's efforts for peoples' and planetary health, to secure a future where people and nature thrive.

<u>Photo Credits</u>

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