Zoonotic Disease Threats Posed by Animal Industries Uncovered in Comprehensive New Report

Animal markets and other forms of animal industries pose serious risk of future pandemics and current regulation does not sufficiently protect public health against these threats, concludes a new 15 country study by Harvard Law School and New York University. The report documents the scope of these risks and calls for better regulation of animal industries to prevent disease outbreaks.

A new report today from the Brooks McCormick Jr. Animal Law & Policy Program at Harvard Law School and the Center for Environmental and Animal Protection at New York University warns of high-risk human-animal interactions at animal markets worldwide, and documents the threats posed to global health security by these markets and the industries that supply them, including the wildlife trade, livestock production, and wildlife farming. The report analyzes what policymakers and governments are doing to manage these zoonotic threats and exposes vulnerabilities and shortcomings in regulation that leave the public exposed and at-risk.

The report, *Animal Markets and Zoonotic Disease Risk: A Global Synthesis of a 15 Country Study*, is one of the most comprehensive assessments to date of zoonotic risk, offering an in-depth analysis of potential risks posed by animal markets and their supply chains across 15 countries and six continents. Researched and written by teams of experts, the report incorporates scientific findings, field observations, data, interviews, local and regional regulatory analysis, and other research to describe and analyze what is known about the zoonotic risks posed by animal markets and other related forms of animal industries.

“Our research found that zoonotic disease risk is not confined to any one region or type of market,” said Ann Linder, Associate Director of Policy & Research at the Animal Law & Policy Program at Harvard Law School and lead author of the report. “This is a global problem, and one that needs to be urgently addressed through better regulation to target the root causes of zoonotic spillover.”

Animal Markets and Zoonotic Disease Risk: A Global Synthesis of a 15 Country Study brings forward new examples and images gathered from across six continents to describe the landscape of zoonotic risk from a global perspective, sketching some of the most common pathways through which diseases move from animals into humans. The report:

- Assesses risk from animal markets and the major sources that supply these markets, including the wildlife trade, livestock production, and the wildlife farming industry.
- Analyzes how regulation of these industries falls short of protecting public health, increasing the risk of future pandemics and leaving the public vulnerable.
- Addresses how misinformation and misconceptions about zoonotic risks can undermine public health efforts.
- Demonstrates that zoonotic disease outbreaks often follow predictable patterns and challenges the idea that little can be done to prevent zoonotic outbreaks.
- Makes a strong case that better regulation of animal industries is needed to prevent pandemics and safeguard global health security but finds that many nations are ignoring these risks or doing little to address them.

"The polarized debate around COVID-19's origins has created a deep level of mistrust and misinformation, which this report seeks to cut through and correct," said Dr. Dale Jamieson, Professor of Law, Medical Ethics, and Bioethics at New York University and Director of the school's Center for Environmental and Animal Protection. "High-risk human animal interactions occur in every country that we studied, including in industrialized nations like the United States, and these interactions drive the global threat of disease spillover. This research analyzes how, where, and why those interactions occur and what can be done to prevent future disease outbreaks through better policy."

Harvard and NYU's research offers a sobering, detailed look at practices that drive animal-human disease transmission and what can be done to disrupt these cycles of disease emergence. The research observes that, "While the[se patterns of animal use] do not capture every circumstance of spillover, many of the most serious zoonotic viruses, from SARS to Ebola to influenza to HIV-1, have moved through one of these channels to reach humans. Future outbreaks will occur through these same pathways and many of those outbreaks can be prevented through better policy." Among the report's key findings:

- Animal industries drive zoonotic risk and present serious threats to global health security.
- Current regulation is not proportional to risk, as many high-risk human-animal interactions are underregulated or entirely unregulated.
- At present, across much of the world, regulators lack even basic information about many forms of animal industries or the risks they pose.
- Zoonotic risks are not random but occur in predictable patterns.
- Many zoonotic outbreaks are preventable, and the risk of disease spillover could be radically reduced through better regulation.

- Too often policymakers act indifferently or recklessly with respect to zoonotic risks, leaving the public vulnerable to disease outbreaks.

Policy recommendations from researchers include—

- Enhanced regulation and monitoring of animal markets and their supply chains.
- Improved public health protections across the livestock industry, the wildlife trade, and wildlife farming industries.
- Policy that facilitates and incentivizes sustainable agricultural practices to minimize habitat destruction and environmental harms that can amplify zoonotic risks.
- A concerted focus on spillover prevention rather than focusing only on post-outbreak response.
- Increased collaboration among different sectors of government and internationally among nations to address the root causes of pandemics and protect the public from future disease outbreaks.

“This research provides a comprehensive global view of zoonotic risks and the regulatory landscape that governs them to inform policymakers about how to protect the public from these threats,” said Linder. “Our hope is that this critical information can provide a roadmap for designing interventions to reduce risk and disrupt the dangerous patterns of disease spillover documented in our report.”

This report was built from 15 country case studies authored by teams of experts. Those country reports are available here:

Angola
Australia
Brazil
China
Germany
Ghana
India
Indonesia
Israel
Kenya
Peru
South Africa
United Arab Emirates
United States
Vietnam

For more information and to access the full report, please visit Harvard Animal Law & Policy Program. For a summary and major takeaways, click here. A representative collection of open-source images used in the report is available here (credits for use are included in the title). This report was researched and written by Ann Linder M.S., J.D. (Harvard Law School), Dr. Bonnie Nadzam (Harvard Law School), Dr. Dale Jamieson (New York University), Dr. Kristen Stilt (Harvard Law School), and Valerie McCarthy (Harvard Law School).

***The Brooks McCormick Jr. Animal Law & Policy Program at Harvard Law School** is dedicated to advancing the field of animal law and policy through research, scholarship, and advocacy. The program aims to improve the treatment of animals and address the complex legal and policy issues related to animal protection. https://animal.law.harvard.edu/*

The Center for Environmental and Animal Protection at New York University provides academic leadership for research and policymaking in addressing critical social issues at the intersection of environmental and animal protection. https://wp.nyu.edu/ceap/

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