



**Wildlife  
Conservation  
Society**

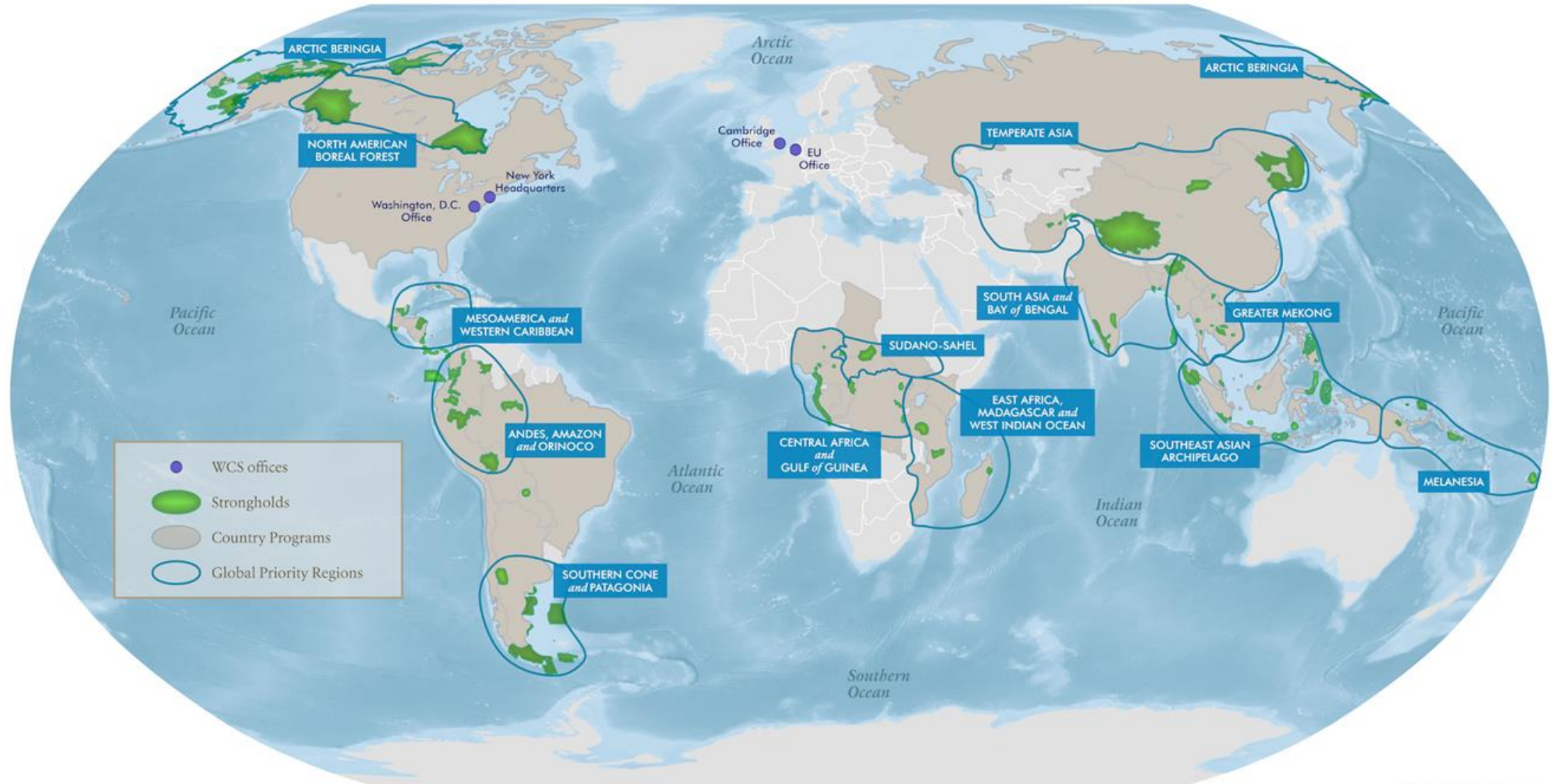
# **BE PREZODE Workshop**

*The Environmental Sector and Zoonotic Disease Risk Reduction:  
Examples from the field*

Brussels  
8<sup>th</sup> March 2023

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Wildlife Conservation Society - EU Office

# WCS: Where We Work



Credits: EuroGeographics and UN-FAO, Countries (2020). GEBCO Compilation Group (2019). August 2022

# Why WCS ?

- Only global conservation NGO with a health program (veterinary basis)
- >100 years experience in wildlife health
- One Health pioneer:  
2004 Manhattan principles → 2019 Berlin Principles
- Multidisciplinary approach
  - Field-based conservationists implementing primary prevention interventions in >60 countries
  - Policy (national & global)
  - Elevating knowledge and right of Indigenous Peoples and local communities
  - Counter Wildlife Trafficking program



## The Manhattan Principles on “One World, One Health”

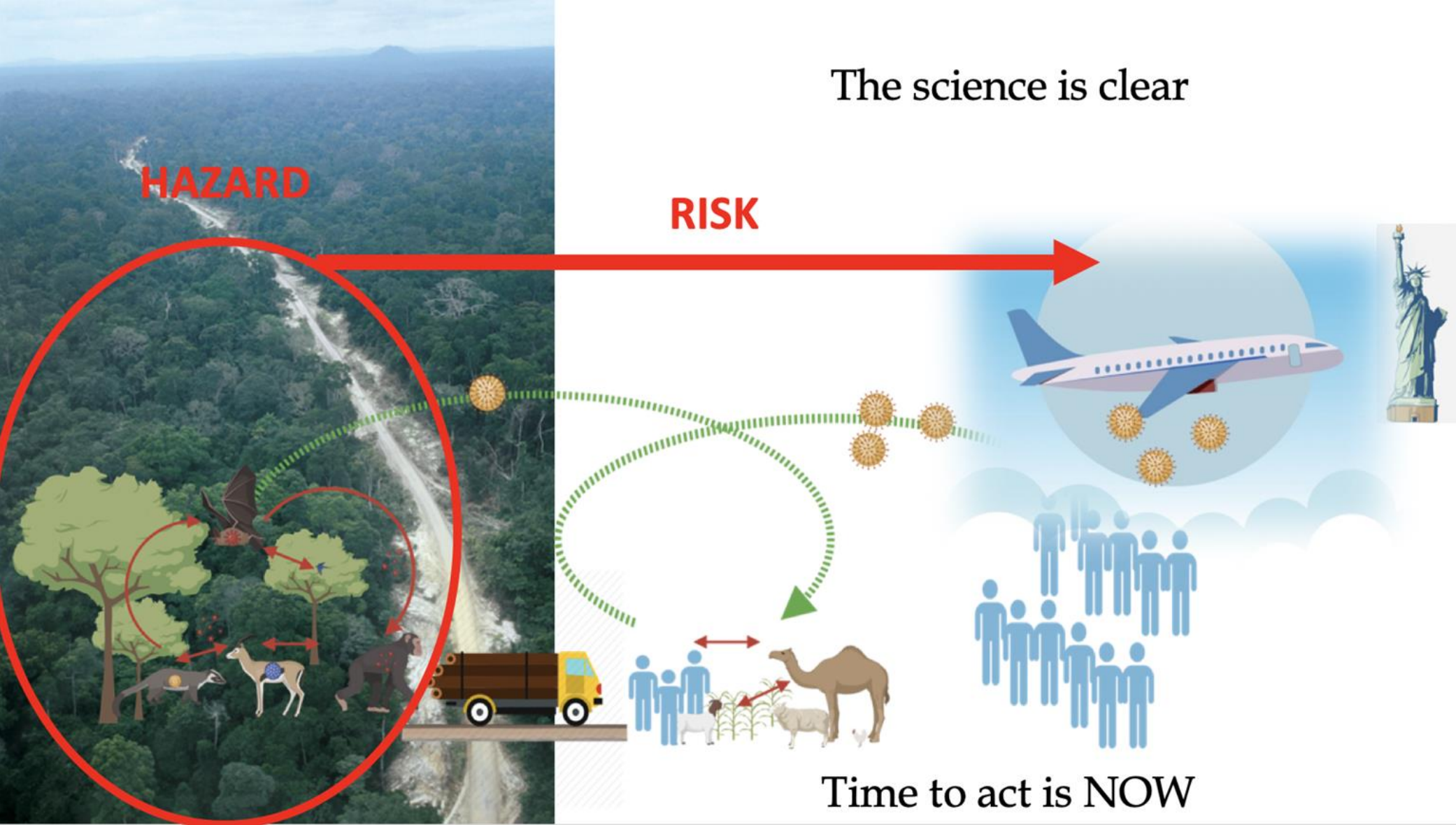
“Recent outbreaks of West Nile Virus, Ebola Hemorrhagic Fever, SARS, Monkeypox, Mad Cow Disease and Avian Influenza remind us that human and animal health are intimately connected. A broader understanding of health and disease demands a unity of approach achievable only through a consilience of human, domestic animal and wildlife health - One Health. Phenomena such as species loss, habitat degradation, pollution, invasive alien species, and global climate change are fundamentally altering life on our planet from terrestrial wilderness and ocean depths to the most densely populated cities. The rise of emerging and resurging infectious diseases threatens not only humans (and their food supplies and economies), but also the fauna and flora comprising the critically needed biodiversity that supports the living infrastructure of our world. The earnestness and effectiveness of humankind’s environmental stewardship and our future health have never been more clearly linked. To win the disease battles of the 21st Century while ensuring the biological integrity of the Earth for future generations requires interdisciplinary and cross-sectoral approaches to disease prevention, surveillance, monitoring, control and mitigation as well as to environmental conservation more broadly.”

**The Berlin Principles** 'updated' the Manhattan Principles, reintegrating ecosystem health and integrity and addressing current pressing issues, such as climate change and antimicrobial resistance. intrinsically connected and profoundly influenced by human activities.



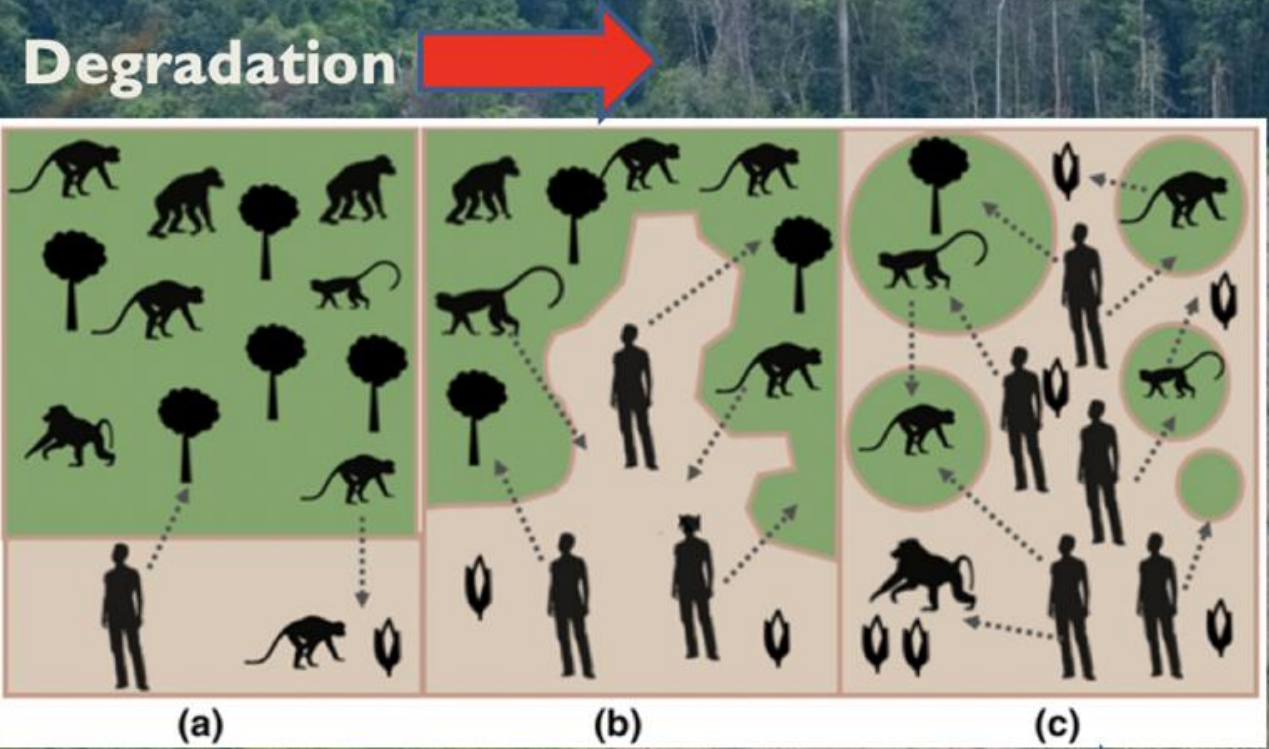
From left to right: WCS's Chris Walzer and Cristian Samper, Sir Andrew Haines, Minister of State Niels Annen, Sabine Gabrysch, Maike Voss, Lothar Wieler.

# Humans - Wildlife Interfaces and Risk of Spill-Over



# Land use change increases zoonotic disease outbreaks originating in wildlife

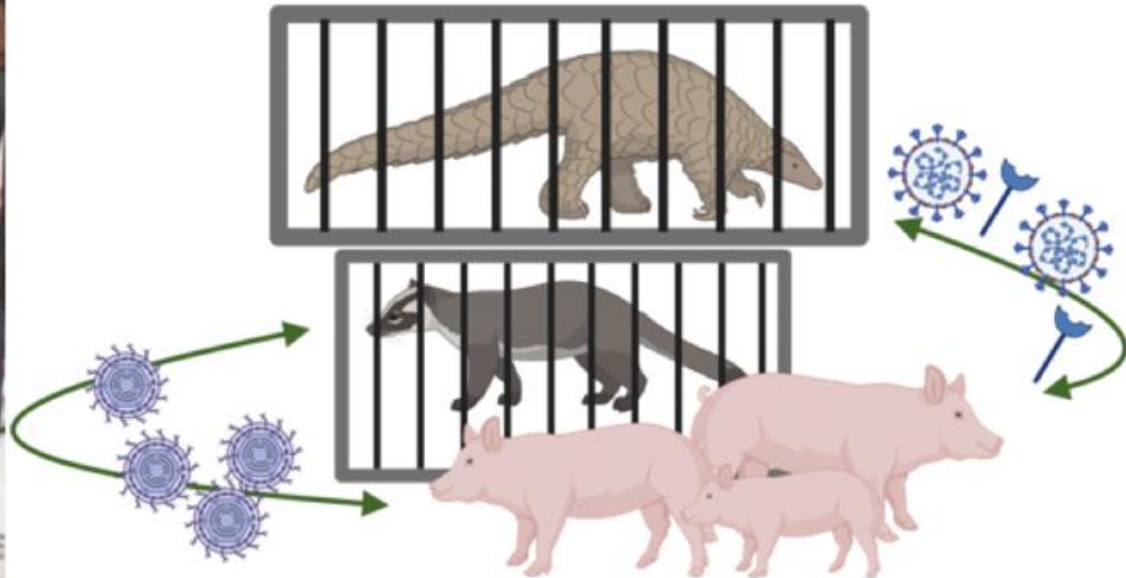
Road-building  
Mining  
Logging  
camps  
Deforestation



From: Bloomfield et al. 2020, *Landscape Ecology*; Dobson et al. 2020, *Science*



The commercial live wildlife trade and wildlife markets constitute true cauldrons of contagion.



# WCS and One Health approaches: Examples from the field

1. Wildlife Mortality Monitoring Network in Congo
2. WildHealthNet: Operationalizing National Wildlife Surveillance
3. A One Health Approach to Wildlife Trade Policy in Viet Nam





# Wildlife Mortality Monitoring Network in the Republic of Congo

- Ebola Virus Disease (EVD) outbreak in 2005
- Relevant for human and great ape health
- Community-based wildlife mortality monitoring network (subsistence hunters)
- More than 260 villages have engaged in the program
- Combined with outreach on prevention of zoonotic disease
- Efficient sample analysis essential for effective monitoring and rapid response



Community Outreach on Ebola Virus Disease  
© WCS Republic of Congo



Training Congolese teams in safe sample collection from carcasses  
© WCS Republic of Congo



# WildHealthNet: Operationalizing Wildlife Health Surveillance for One Health

- Supports governments (Cambodia, Laos, Viet Nam) to build & implement national wildlife health surveillance strategies
- Enhances safe and rapid detection, tracing, and mitigation of pathogens in wildlife
- Utilizes SMART for Health tool
- Detected trans-national disease outbreaks of zoonotic diseases (HPAI) and other pathogens of economic, wildlife, and human health significance
- Expanding to Peru, Guatemala, and others



# A One Health Approach to Wildlife Trade Policy in Viet Nam

- Implementing evidence-based policy change
- Wildlife is commonly traded for meat, pets, skins, traditional medicine, and for display in private collections
- Master Plan for the One Health Partnership Framework for Zoonoses
- Revision of a number of decrees addressing animal health, public health, food safety, and wildlife management

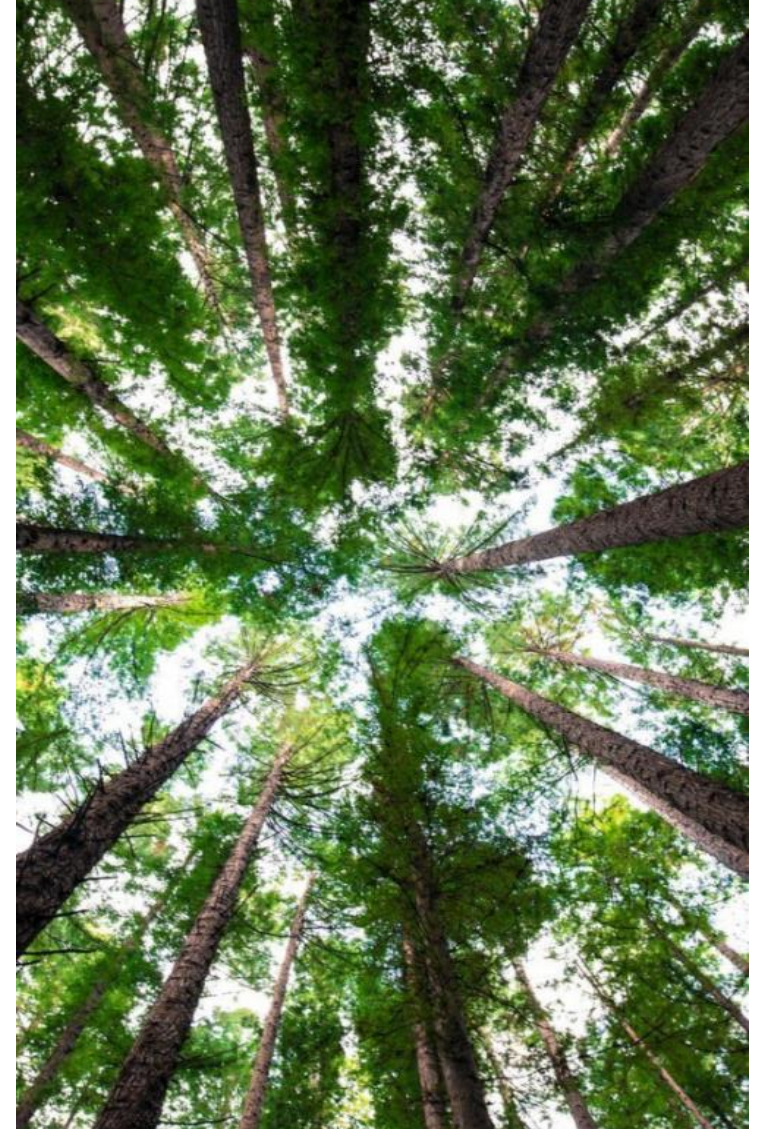


Civet in Wildlife Trade in Viet Nam  
© WCS Viet Nam

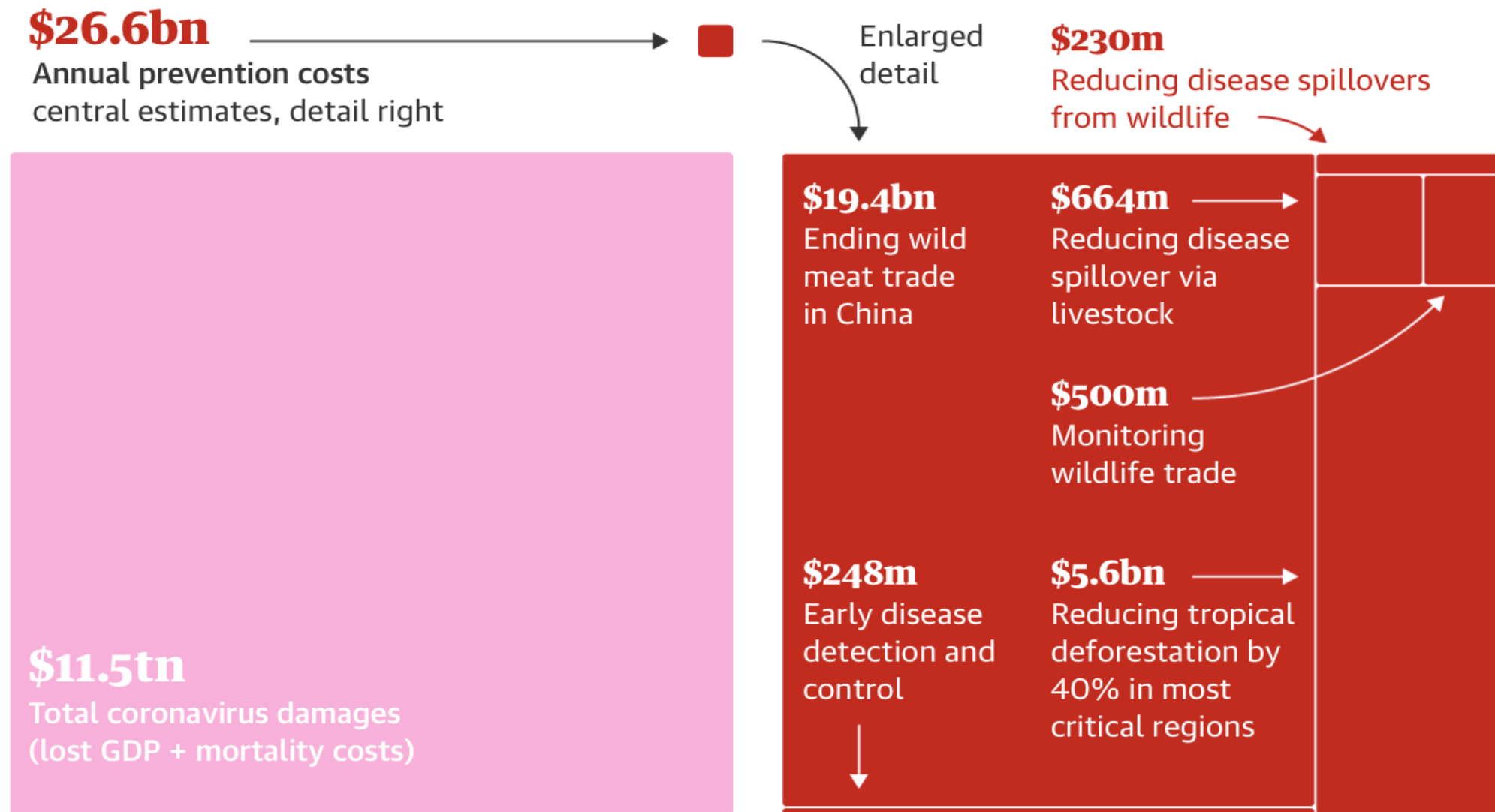


# Solutions

- Shutting down or strictly regulating wildlife markets and trade that pose risks
- Stopping clearing and degradation of tropical and subtropical forests
- Improving health and economic security of communities living in EID hotspots
- Enhancing biosecurity in animal husbandry
- Strengthening wildlife health surveillance networks
- Expanding pathogen surveillance at interfaces between humans, domestic animals, and wildlife,
- Improving global policy on pandemic prevention at source



# Annual costs of preventing future pandemics from wildlife are tiny compared with costs of the Covid-19 crisis



 | REVIEW | EPIDEMIOLOGY



# The costs and benefits of primary prevention of zoonotic pandemics

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# Thank You

## We Stand for Wildlife™



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