



# POLICY BRIEF

**SWM SUSTAINABLE  
WILDLIFE  
MANAGEMENT  
PROGRAMME**

## Build back better in a post-COVID-19 world: Reducing future wildlife-borne spillover of disease to humans

This policy brief provides decision-makers with a set of actionable recommendations<sup>1</sup> that can be implemented to prevent future epidemics caused by the spillover of diseases from wildlife and wild meat. The recommendations are based on a White Paper, which assessed:

- why spillover of disease from wildlife to humans occurs and how these zoonotic disease outbreaks can spread and become epidemics and pandemics like COVID-19;
- what efforts can be made to prevent and detect future spillover events and mitigate impacts by building resilience.

The policy brief was produced as part of the Sustainable Wildlife Management (SWM) Programme, which is an Organisation of African, Caribbean and Pacific States (OACPS) initiative funded by the European Union.<sup>2</sup>

### Key recommendations

**PREVENT: Minimize risks of exposure to wildlife pathogens at human–wildlife–livestock interfaces and mitigate impacts by building resilience**

#### **Maintain ecosystems intact and/or unfragmented:**

Prevent the overexploitation, fragmentation and conversion of natural ecosystems in order to reduce human–wildlife and livestock–wildlife interfaces, particularly in environments where the risk of zoonotic disease spillover is high. This can be achieved by:

- recognizing and respecting Indigenous Peoples and Local Communities’ rights and authority to continue to preserve the ecological integrity of their traditional territories;
- halting fragmentation, for example, by preventing the building of new roads through intact ecosystems rich in wildlife;

- restoring fragmented landscapes that still host wildlife, such as selectively logged areas;
- promoting inclusive and informed land-use planning with a One Health approach.

#### **Reduce urban demand for wild meat:**

In areas where hunting and wild meat consumption occur at unsustainable levels, support targeted social marketing campaigns to reduce or stop wild meat consumption in provincial towns and cities where there are alternative sources of protein (e.g. from livestock or farmed fish).

**Reinforce controls on wildlife trade:** Where wildlife trade is legal, an effective balance between enforcement and regulatory approaches should be considered to:

- stop illegal wildlife trafficking;
- improve legal trade management, especially in markets where the sale of live and fresh wildlife coincides with the sale of live and fresh livestock;
- enforce selective trade bans targeting species assessed to represent a higher risk of harbouring pathogens with zoonotic potential.<sup>3</sup>

**Promote food safety and hygiene standards “from the bush to the bowl”:** Educate and raise awareness about wildlife-related diseases and risks linked to specific practices. Develop capacity on food safety and hygiene to prevent possible spillover of foodborne zoonoses at all levels of the wild meat value chains.

**Support risk assessment:** Invest in risk assessment along the wildlife value chains. This will allow interventions to be prioritized and targeted at points of increased risk.

They will therefore be more effective at reducing zoonotic risks and addressing the drivers of disease emergence.

**Develop sustainable and safe local food systems:** Guarantee rural food security by allowing continued consumption of wild meat by Indigenous Peoples and rural communities. This should be allowed where:

- no alternative sources of protein exist;
- only non-protected species are consumed;
- the species present low spillover risks;
- locally appropriate food safety measures are in place.

Diversify and increase food supply by promoting and supporting local, sustainable and safe food production and alternative sources of incomes to feed rural and urban families, particularly those that rely on wildlife for food and livelihoods (e.g. in small and remote urban areas). This could be achieved, for example, through climate-smart or agro-ecological agriculture.

## DETECT: Ensure the early detection and reporting of future zoonotic spillover and disease outbreaks at human-wildlife-livestock interfaces

**Support effective frontline surveillance systems, including early detection systems:** Support the development of sustainable wildlife disease surveillance programmes. These should report early threats, inform on epidemiological risk and monitor the impact of interventions. They will provide extra protection where measures have been ineffective or insufficient. For avian-borne diseases, build on the population monitoring programme of “health sentinel” bird species to establish long-term surveillance systems.

**Map risk areas:** Invest in the development of predictive modelling based on ecosystem health indicators known as correlated to zoonoses emergence risks (e.g. mammal species richness, recent deforestation) to map risk areas where to geographically target detection efforts.

## RESPOND: Put in place One Health policy, regulatory and operational systems at the national level to improve prevention, preparedness and response to the next outbreak

**Ensure a stronger involvement of the wildlife and forestry sectors in the One Health approach,** especially to increase the development and implementation of actions further “upstream” that address land use related drivers of disease emergence (forest fragmentation, habitat loss).

**Support national implementation of the One Health approach:** Improve collaboration, coordination, planning and joint responses between disciplines and ministries, including the wildlife and forestry sectors, by:

- building capacity in the One Health approach;
- establishing coordinated decision-making procedures based on pre-defined triggers;
- maintaining integrated and interoperable information systems;
- encouraging effective regional and international collaboration.

**Strengthen sectoral legal frameworks:** Reform and develop laws, especially those related to animal health, wildlife management and food safety, in order to reduce

zoonotic risks and strengthen the population's resilience to shocks. Ensure that the reform of legal frameworks is inclusive (i.e. socially acceptable and respectful of human rights). Clearly define roles, responsibilities and budgets to ensure that the laws are effectively implemented and guarantee effective cross-sectoral coordination and collaboration.

**Promote formalization of tenure regimes that enhance community land and natural resource stewardship, and inclusive land-use planning policies:** Formally recognize and define the land, fisheries and forestry tenure rights of Indigenous Peoples and local communi-

ties. This will help to improve and secure sustainable local food systems, including wildlife-based food systems, and contribute to maintaining ecosystem integrity and health.

**Strengthen political commitment to addressing zoonotic diseases:** Provide appropriate and timely information to policy makers and other key national stakeholders on the current evidence and causes of emerging diseases. These include modifications to natural habitats and changes in agricultural practices and human behaviour.

## Note: Wild meat challenges and the SWM Programme response

Wild meat is essential for the food and nutritional security, livelihoods and cultural identity of millions of Indigenous People and rural communities. Banning wild meat consumption and trade in rural areas where people have no access to livestock or farmed fish could lead to increased malnutrition and poverty. In urban areas, the wild meat trade (fed by commercial hunting) can contribute significantly to the national economy. However, hunting has already reached unsustainable levels in many places where wild meat is traded, and its role in the economy will decline as wildlife populations are depleted.

Hunting, wild meat processing, trade and consumption pose major risks to global public health. The risks increase while moving along the wild meat supply chains, from hunting areas to urban consumers. The informal – or illegal – and/or unregulated character of wild meat/wildlife value chains exacerbates this risk and limits attempts to control them. Spillover events, where pathogens are able to infect humans and cause epidemics, are nevertheless considered relatively rare. However, a risk-based mitigation approach is needed and justified given the huge impact of such events on public health, economies and society as a whole.

**The SWM Programme is contributing to this risk minimization approach by:**

- helping Indigenous Peoples secure and exercise their territorial rights to sustainably manage the wild resources they depend on for food, income and cultural identity;
- promoting backyard production of poultry, fish and edible insects around provincial towns to ensure a sustainable supply of protein as a substitute for wild meat;
- using targeted social marketing campaigns to change consumer behaviour in large cities to reduce both individual and aggregate demand for wild-caught animals;
- supporting national governments to strengthen laws and regulations related to hunting, wildlife trade and consumption, including food safety and public health considerations;
- improving our knowledge and understanding of wild meat value chains through extensive research, in order to make recommendations, improve practices and build capacities, including on how to reduce zoonotic risks.

## Acknowledgements

This Policy Brief was developed within the framework of the SWM Programme by (in alphabetical order): Badi Besbes, Hubert Boulet, Carmen Bullon, Blaise Kuemlangan, Yingjing Li, Jeffrey LeJeune, Markus Lipp, David Mansell-Moullin, Scott Newman, Bruno Portier, Sandra Ratiarison, Kristina Rodina, Eugenio Sartoretto, Keith Sumption, Tiina Vähänen, Sophie Von Dobschuetz, Sheila Wertz-Kanounnikoff and Mette Løysche Wilkie (FAO); J. E. Fa, Robert Nasi and Nathalie van Vliet (CIFOR); Sandy Andelman, Chris Walzer, Michelle Wieland and David Wilkie (WCS); and Alain Billand, Daniel Cornélis, Ferran Jori and Marisa Peyre (CIRAD).



[SWM-programme@fao.org](mailto:SWM-programme@fao.org)  
[www.swm-programme.info](http://www.swm-programme.info)

## Endnotes

- <sup>1</sup> Measures should target and prioritize countries that are unable to control trade in wild meat and are currently ranked lowest in the World Bank's epidemic preparedness assessment.
- <sup>2</sup> The SWM Programme is a seven-year (2017–2024) initiative to improve the conservation and sustainable use of wildlife in forest, savannah and wetland ecosystems. Field projects are being implemented in 13 African, Caribbean and Pacific countries. The aim is to: improve how wildlife hunting is regulated; increase the supply of sustainably produced meat products and farmed fish; strengthen the management capacities of indigenous and rural communities; and reduce the demand for wild meat, particularly in towns and cities. It is being implemented by a dynamic consortium of four partners – the Food and Agriculture Organization of the United Nations (FAO), the French Agricultural Research Centre for International Development (CIRAD), Center for International Forestry Research (CIFOR) and Wildlife Conservation Society (WCS) – with expertise in wildlife conservation and food security ([www.swm-programme.info](http://www.swm-programme.info)).
- <sup>3</sup> Permanent blanket bans on trade and consumption of all wild species might be unwarranted and could decrease acceptance of the overall measures. However, under critical circumstances, blanket bans on all species could still be considered as temporary and/or localized emergency measures where pathogen spillover risks are assessed as particularly high. Impact assessment and associated mitigation and support measures will need to be applied to avoid any long-term side effects of those measures on human well-being, particularly on Indigenous Peoples and local communities.

## Supported by



Funded by the  
European Union

Recommended citation: FAO, CIRAD, CIFOR and WCS. 2020. *Sustainable Wildlife Management (SWM) Programme Policy Brief - Build back better in a post COVID-19 world: Reducing future wildlife-borne spillover of disease to humans*. Rome. <https://doi.org/10.4060/cb1490en>



Some rights reserved. This work is available  
under a CC BY-NC-SA 3.0 IGO licence