

# 'Forest foods' drive risks of next global pandemic

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A taste for wild meats such as pangolins and civets, often known as 'forest foods' in tropical and subtropical regions, makes the emergence of another global pandemic increasingly likely, four international organisations say.

Around 70% of emerging [infectious diseases](#) originate from animals, in particular wildlife, they say in a [white paper](#) published last month (October). The list includes Ebola, Lassa and human immunodeficiency viruses.

"When thousands or millions of urban dwellers buy and eat wild meat, the probability that at least one individual will be exposed to a pathogen of wildlife origin and then infect other people increases substantially," the paper says.

The paper was produced by the FAO, the French Agricultural Research Centre for International Development (CIRAD), the Center for International Forestry Research (CIFOR) and the Wildlife Conservation Society (WCS), as part of their Sustainable Wildlife Management (SWM) Programme.

Over 9,000 wild animal species are used as human food worldwide, according to the International Union for Conservation of Nature.

Wild meat, from species such as antelopes, ostriches, civets and pangolins, is a high-priced commodity in many major urban centres, and

with the animals come diseases.

For example, civets are considered intermediary hosts for SARS (Severe Acute Respiratory Syndrome). Pangolins, which have a suspected link to the COVID-19 pandemic, are "the most heavily trafficked wild mammal in the world", according to UN's World Wildlife Crime Report.

Animal seizures have increased from 14,000 live equivalents in 2014 to 142,000 in 2018, the report says.

## **Local hunting**

But beyond urban delicacies, wild meats often serve as a critical source of protein for vulnerable families.

"Unsatisfied needs in developing countries lead many people to hunt them to eat, legally and illegally," says naturalist Claudio Bertonatti, a researcher at Maimónides University and Azara Foundation, which did not take part in the study.

People more often capture sick rather than healthy animals as their escape capabilities are diminished, he adds.

"Nearly 6,000 different species of fauna and flora have been seized between 1999 and 2018," says the UN report. That industry is worth up to US\$23 billion.

Due to the economic crisis resulting from the COVID-19 pandemic, rural communities from Guyana and other Latin American countries have initiated lockdowns that include a return to traditional lifestyles, and a reliance on fishing, hunting and family farming to survive.

While meat from subsistence hunting is eaten locally, wild meat for

restaurants is shipped off to big cities, sometimes far away from where it was poached.

"The longer the time between meat being sourced and consumed, [the greater the] potential for [disease transmission](#)," Richard Thomas, head of Communications at TRAFFIC, a wildlife trade monitoring network, tells SciDev.Net. If the animal is harbouring a zoonotic disease—one that can jump from animals to humans—there is more time for crossover to take place.

But, "the real high-risk areas are markets where different species or animals are in close proximity to each other and to people," Thomas says. "Diseases have increased opportunity to jump across species barriers."

## **Investment**

Forest loss acts as an additional problem. According to the FAO, the rate of net forest loss is estimated to have been 4.7 million hectares per year in the past decade. Of the remaining global cover, 70% is within one kilometre of the forest's edge.

"In undisturbed or slightly disturbed forests, ecological mechanisms may exist that act as a buffer against the transmission of diseases," Sandra Ratiarison, SWM regional coordinator for Central Africa and Madagascar, explains.

Landscape changes and the opening of roads that facilitate hunting can cause major shifts in the ecology of pathogens and thus increase their probability to spill over to humans, she adds. Bans on wild meat trade and consumption have been declared in several countries, but lack of political will and resources have led to limited enforcement.

"It is essential that countries invest in zoonotic risks assessments as well as in culturally sensitive measures to ensure [rural communities](#) can access healthy diets while decreasing risks of emerging disease spillover," Ratiarison says.

A project sponsored by TRAFFIC in Amazonian Ecuador adopted this approach. The Yasuni community was overharvesting peccary, a pig-like creature, and tapirs to sell their meat in the nearby town of Coca, where it was seen as a luxury item.

After talking and working with women in the community, the Yasuni voluntarily agreed to reduce their hunting. "This was coupled with efforts to provide alternative income sources, such as the planting of cocoa for chocolate, and fish farming enterprises," Thomas says.

"Meanwhile, effort was put into discouraging the consumption of exotic meat by tourists, an initiative supported by the local mayor. As a result, the wild meat markets in Coca closed down, as did the sale of wild [meat](#) by restaurants."

Provided by SciDev.Net

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