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# Preventing the Next Pandemic: Working *with* the Environment to Protect People

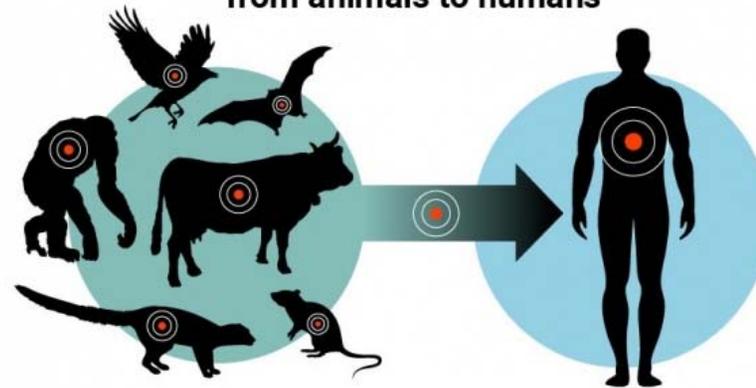


# What are zoonoses and how prevalent are they?

A “zoonotic disease” or “zoonosis” is a disease that has passed into the human population from an animal source. COVID-19, which has already caused more than half a million deaths around the world, most likely originated in bats.

## What are zoonoses and how prevalent are they?

Zoonoses are diseases transmitted from animals to humans



They  
comprise:

**60%**  
of all infectious  
diseases in humans

**75%**  
of all emerging  
infectious diseases

Source:  
UNEP Frontiers 2016 Report

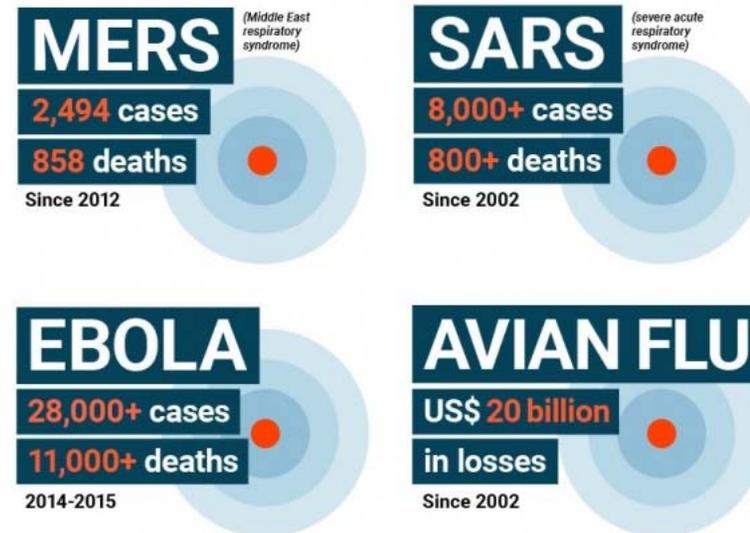


## Recent zoonoses and their impacts

Around 60 per cent of all infectious diseases in humans are zoonotic, as are 75 per cent of all emerging infectious diseases, in other words they come to us via animals.

COVID-19 is only the latest in a growing number of diseases – including Ebola, MERS, West Nile fever and Rift Valley fever – whose spread from animal hosts into human populations has been intensified by anthropogenic pressures.

### Recent zoonoses and their impacts



Source: UNEP Frontiers 2016 Report, WHO, World Bank



## Recent zoonoses and their impacts

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In the last two decades alone, **zoonotic diseases** have caused **economic losses of more than \$100 billion**, not including the cost of the COVID-19 pandemic, which is expected to reach \$9 trillion over the next few years.

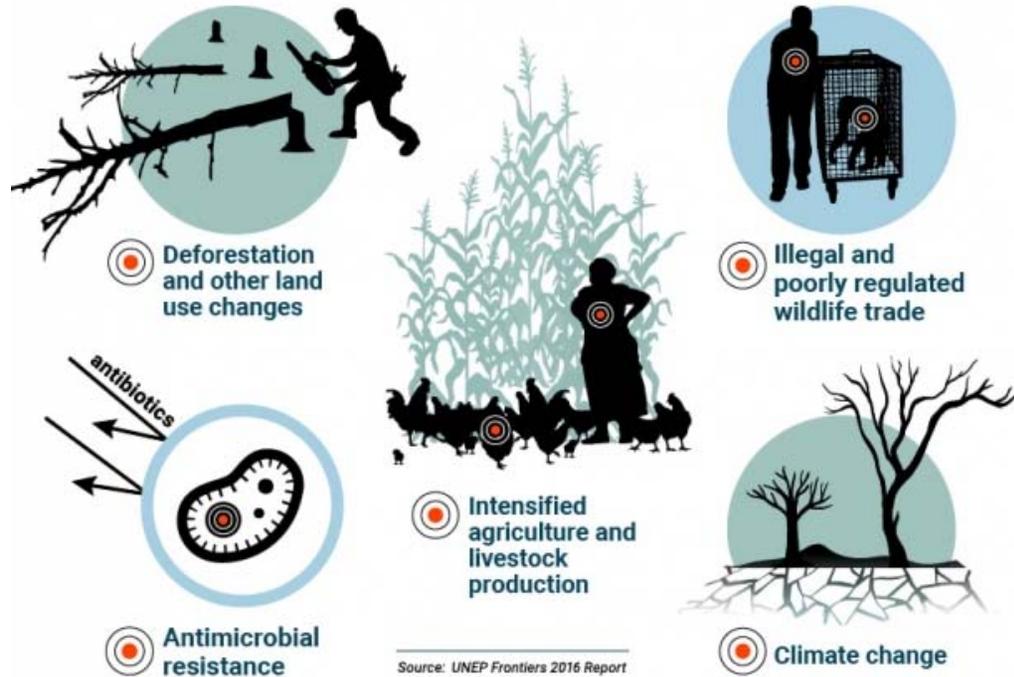
Every year, some **two million people**, mostly in low- and middle-income countries, **die from zoonotic diseases**.

The same outbreaks can cause **severe illness, deaths, and productivity losses among livestock populations in the developing world**, a major problem that keeps hundreds of millions of small-scale farmers in severe poverty.



# What factors are increasing emergence of zoonotic diseases?

What factors are increasing zoonosis emergence?  
(Diseases transmitted from animals to humans)



# Preventing the next pandemic

***“The science is clear that if we keep exploiting wildlife and destroying our ecosystems, then we can expect to see a steady stream of these diseases jumping from animals to humans in the years ahead,”*** said UNEP Executive Director Inger Andersen. ***“Pandemics are devastating to our lives and our economies, and as we have seen over the past months, it is the poorest and the most vulnerable who suffer the most. To prevent future outbreaks, we must become much more deliberate about protecting our natural environment.”***



## PREVENTING THE NEXT PANDEMIC

Zoonotic diseases and how to break the chain of transmission



A Scientific Assessment with Key Messages for Policy-Makers  
A Special Volume of UNEP's *Frontiers Report Series*



# The triple planetary crisis – climate, nature, and pollution

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## Global warming is likely to reach 1.5°C between 2030 and 2052

New climate predictions point to a 20 per cent likelihood that one of the next five years will be 1.5°C warmer than pre-industrial levels.

Emissions are heading in the direction of pre-pandemic levels following a temporary decline caused by the economic slowdown.

The world is set to see its warmest five years on record – in a trend which is likely to continue - and is not on track to meet agreed targets to keep global temperature increase well below 2 °C with an aspiration of no more than 1.5 °C above pre-industrial levels.

## Loss of biodiversity and ecosystem integrity will undermine our efforts on 80 per cent of assessed SDG Targets

Nature is declining globally at rates unprecedented in human history 1,000,000 species threatened with extinction.

Average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900.

33% of reef forming corals and more than a third of all marine mammals are threatened.

## The “toxic trail” of economic growth

Pollution and waste cause every year the premature deaths of millions of people across the world.





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**Common Thread: Unustainable  
Consumption and Production**

# We rely on one-way, linear economies driven by growing demand

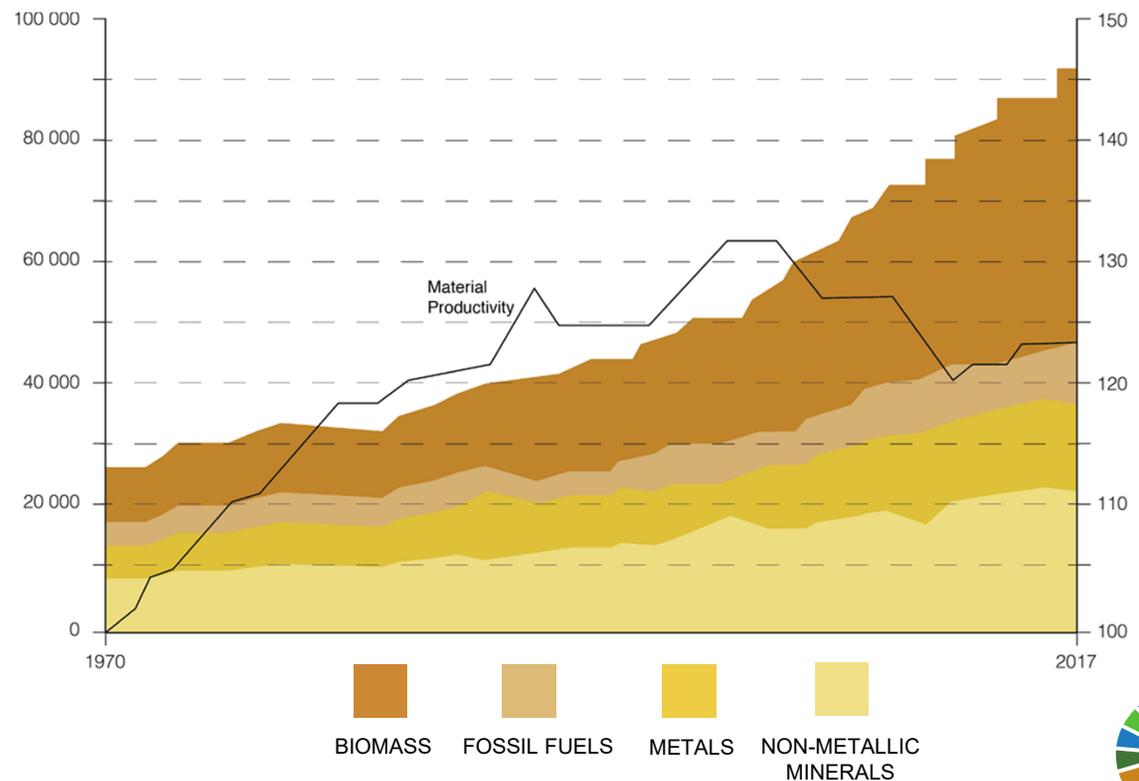
## Global material extraction and material productivity 1970-2017

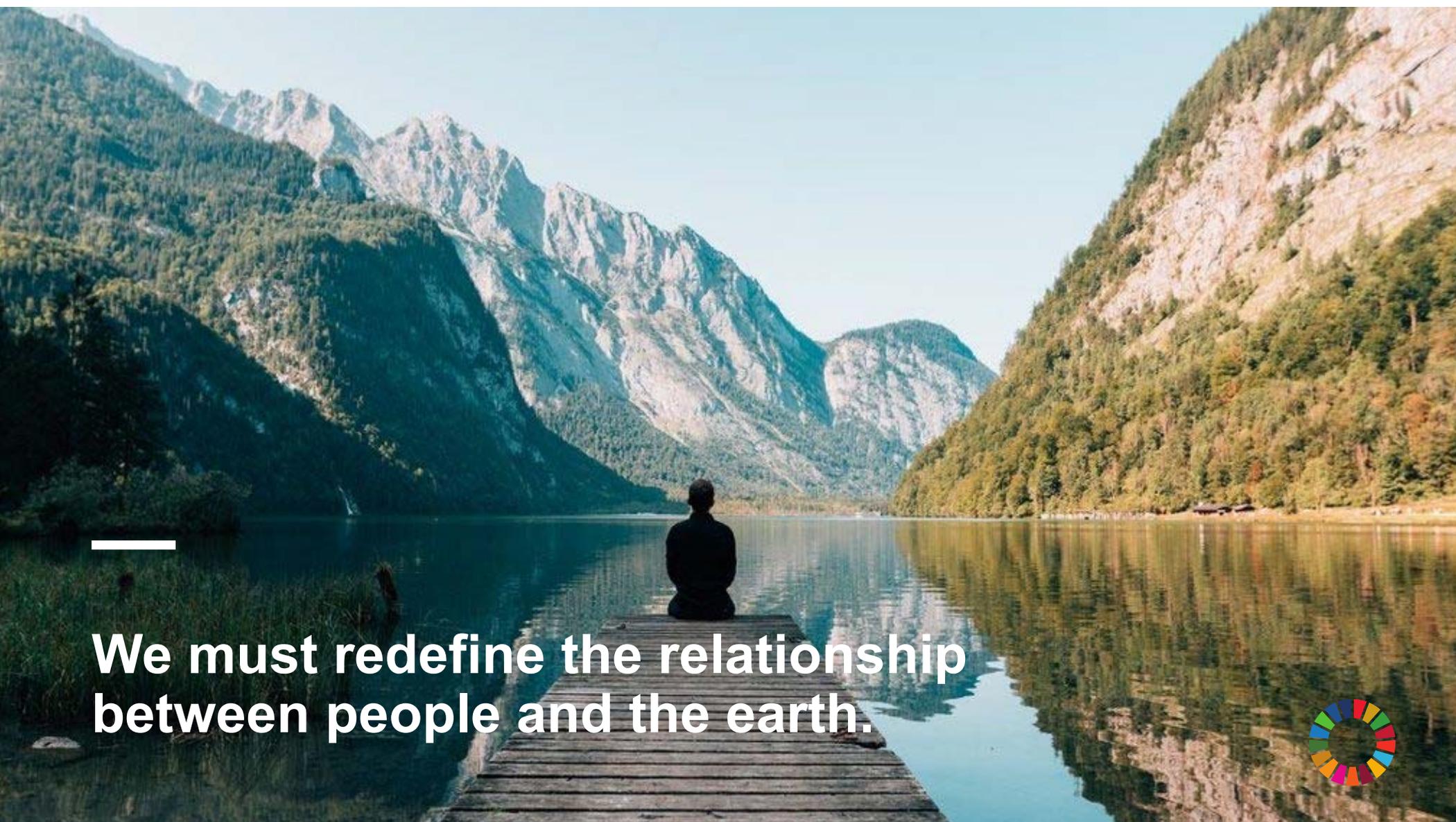


**Global resource use**  
has more than **TRIPLED** since 1970.

**Global material demand per capita**  
GREW from 7.4 TONS tons in 1970 to 12.2 tons in 2017.

**Material productivity**  
started to **DECLINE** around 2000 and has stagnated in recent years.





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**We must redefine the relationship  
between people and the earth.**





**Acting on this triple crisis should  
form the core of international  
action**





**UN**   
environment  
programme