

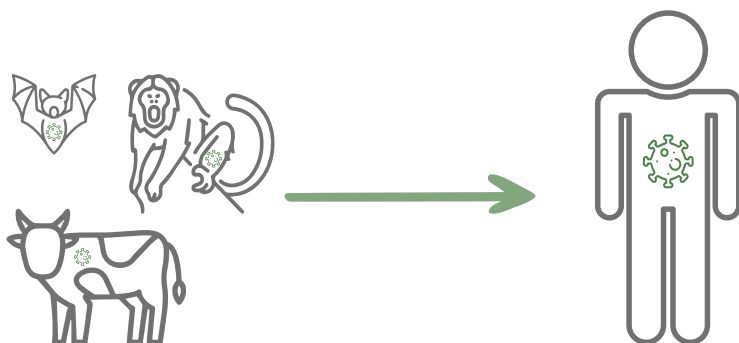
CAN FUTURE PANDEMICS BE PREVENTED IN THE SELVA MAYA?



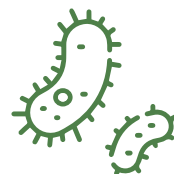
An infectious disease turns into a pandemic when it spreads over several continents, it exceeds the number of expected cases and it extends over time.

Etymologically, the word “pandemic” comes from the Greek expression *pandêmon nosêma*, which translates to “Disease of the people.”

A **zoonosis** is a disease that is transmitted to human beings by animals infected with agents such as bacteria, viruses, parasites or fungi.



Mammals, birds and livestock are reservoirs for pathogens with great pandemic potential.



70%

OF EMERGING DISEASES

(Ebola, Zika) and almost all pandemics (COVID-19, HIV) are of zoonotic origin.



There is an estimate of

1.7

MILLION UNDISCOVERED VIRUSES

in mammals and birds. Among them, between 600 and 800 thousand could affect human beings.

Increased contact between human beings and wildlife occurs due to:

- Deforestation and changes in land use
- Illegal wildlife trade
- Extensive agriculture and farming
- Climate change

The scientific community has announced that pandemics will be increasingly frequent and lethal. They will spread more quickly and have devastating impacts on the local economy if preventive public policies are not implemented.



WHAT CAN WE DO?

To reduce the risk of zoonoses and ensure the health and well-being of the population, it is crucial to create public policies with the “One Health approach”, that recognize the relationship between ecosystems, wildlife and domestic life and human health.

This approach is **multidisciplinary** (it involves the work of nurses, doctors, veterinarians, epidemiologists, scientists, among others), **multisectoral** (Ministries or Secretariats related to human-animal-environment interface) and **multilevel** (work on individual, local, regional, and global levels). Finding balance and collaboration between all actors involved is imperative to ensure the success of the implemented measures.

Ensuring the “One Health approach” is essential in the assertion of actions that allow the anticipation, prevention, detection, and control of diseases that spread between animals and humans, as well as in fighting antimicrobial resistance (AMR), ensuring food safety, amongst other challenges.

MEASURES TO BE IMPLEMENTED

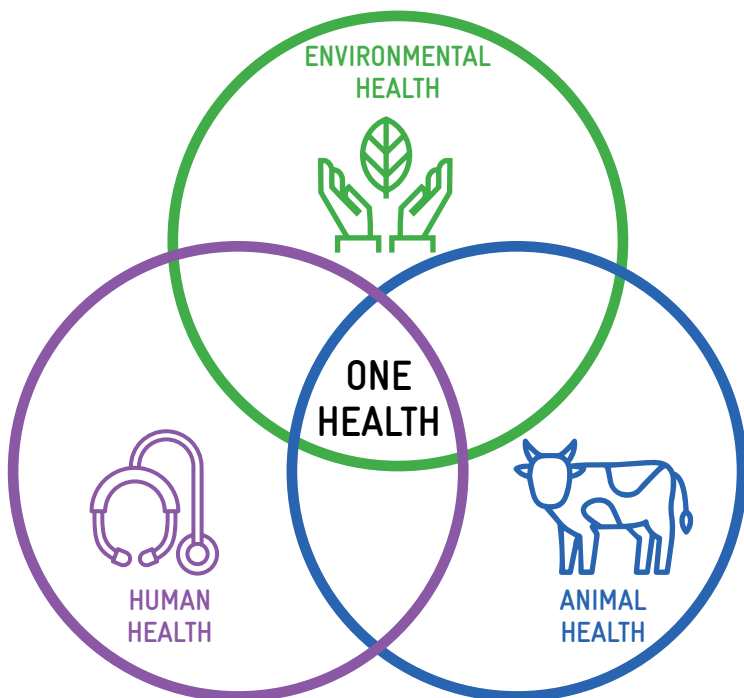
Incorporating the “One Health approach”, as well as the compliance with the United Nation’s 2030 Agenda, are crucial in order to ensure the health of the population.

To reach these goals, it is important to:

- Plan common objectives between various sectors.
- Ensure leadership towards the inclusion of the “One Health approach”.
- Guarantee fluid and constant communication.
- Designate specific resources for its implementation.

BENEFITS OF APPLYING THE “ONE HEALTH APPROACH” IN PUBLIC POLICY

- Timely and effective response to emergencies caused by zoonotic and anthroozoonotic diseases.
- Informed and responsible decision-making.
- Mutual accountability among all stakeholders.
- Realistic and applicable public policies for all economic sectors.
- Effective use of technical, human and financial resources

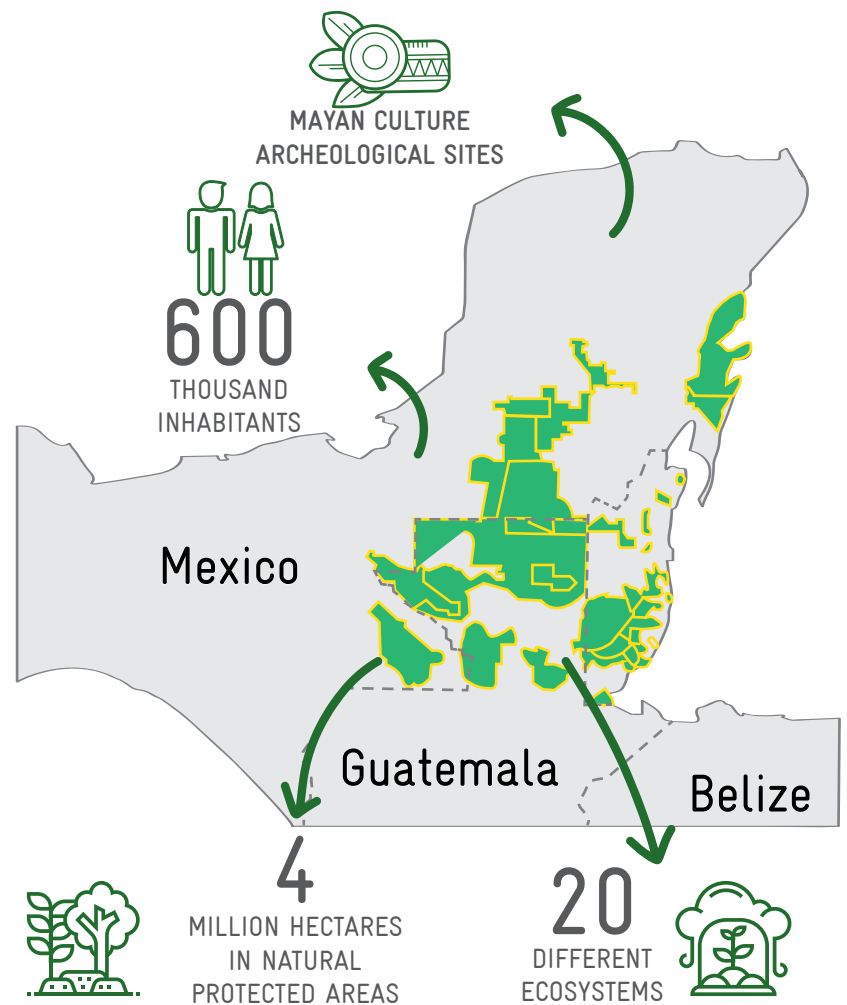


THE SELVA MAYA

The Selva Maya is the most extensive humid and sub-humid tropical mass of forest in Mesoamerica. It covers Belize, northern Guatemala, and southeastern Mexico. Its biodiversity translates into more than 20 different ecosystems, inhabited by several threatened species such as the jaguar and tapir. The region also possesses cultural diversity of great social relevance for the three countries. It is inhabited by several multiethnic communities, many of which live off the natural resources provided by the forest.

This natural and cultural richness is threatened due to multiple factors that cause deforestation and fragmentation of the ecosystems such as:

- climate change
- advance of the agricultural frontier
- unsustainable agriculture and livestock
- migration
- hunting
- trafficking of wild flora and fauna.



Due to the loss of forest coverage, the growth of urban centers and other cultural factors, contact between animals and humans has steadily increased. This situation puts human, animal, and environmental health at risk, due to the spread of potential zoonotic, viral, and bacterial agents that could evolve into diseases of considerable magnitude. Human transformations of natural ecosystems bring more and more pathogens into communities.

Hence, the application of the “One Health approach” through an intersectoral and tri-national cooperation between Belize, Guatemala and Mexico is key.

The experience with COVID-19 has shown that local risks can rapidly escalate to alarming levels.



ESSENTIAL ELEMENTS FOR THE IMPLEMENTATION OF THIS APPROACH IN THE SELVA MAYA

- Promote the protection of Natural Protected Areas through the allocation of human, financial, and technical resources.
- Train staff responsible for human, animal, and environmental health within different institutions in each country, regarding the “One Health approach”
- Generate awareness and sensitization campaigns within the local population.
- Monitor wild and domestic fauna and low-risk population (people in contact with animals).
- Generate policies that minimize contact between humans and wildlife.
- Promote measures to control the abuse of wildlife, such as trading and consumption of wild meat and animal trade.
- Promote the reduction of industrial farming and apply better phyto-zoo-sanitary practices.
- Design mechanisms for early warning and notification of zoonoses (as well as other diseases of interest) in human and animal populations.



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