NATURE AND HUMANITY

Carlos Manuel Rodríguez

cmrodriguez@thegef.org

Global Environment Facility, Washington, DC

ABSTRACT

The SARS-CoV-2 virus, which has so far caused 103 million cases of COVID-19 and 2,250,000 deaths, has a zoonotic origin. The danger of new pandemics of a zoonotic origin is growing, partly because of poor land use management, especially in the tropics. We could greatly reduce this threat by investing in nature conservation for a tiny fraction of the cost of dealing with COVID-19. The Global Environment Facility supports and strongly advocates a green economic recovery post-COVID, in the form of sustainable and nature-based development.

Key words: SARS-CoV-2, COVID-19, Global Environment Facility

Perhaps at no time more than the present does the phrase "May you live in interesting times" embody its true meaning. We indeed find ourselves in a time of great uncertainty and disorder as opposed to the peace and tranquillity we all seek for ourselves, our families and the planet.

The SARS-CoV-2 virus – which (by early February 2021) had led to more than 103 million cases of COVID-19 and nearly 2,250,000 deaths worldwide, while causing ongoing and extensive physical and economic suffering for countless more people – appears to have been transmitted from bats to humans in China. As is the case with the SARS-CoV-2 virus, 75 per cent of all emerging infectious diseases are zoonotic in origin.

Experts no longer consider the occurrence of infectious diseases such as COVID-19 as unlikely, but rather as more likely to occur with increasing frequency if the negative way humans interact with nature does not change dramatically. In fact, every year, two new viruses are estimated to transfer from animals to humans.

Although changes in land-use practices have benefited people through economic and social development, they have had long-term negative impacts on human health and the provision of ecosystem services. Critically, there is increasing evidence that land-use change is a major driver of emerging infectious diseases (EIDs). Previous analyses demonstrate that over 30 per cent of EIDs affecting people are causally linked to land-use change. Deadly diseases such as HIV/AIDS, Ebola and Zika virus all originated in altered landscapes.

While the outbreaks of much infectious disease may be inevitable, the frequency, spread and damage they cause can be controlled and reduced through the adoption of biosecurity measures, sustainable agriculture, forest and protected areas management, and sound land-use planning – supported by the right institutional frameworks that aim to maintain intact forest habitats and limit the interface between fragmented forest habitats and livestock, food production and human settlements.

In addition to land conversion, the harvesting and transport of rodents, bats and primates that are viral reservoirs deliver potential zoonotic pathogens to human population centres through the wild meat trade. To reduce disease transmission of this type, we need to expand wildlife trade monitoring programmes, and to invest in efforts to end the wild meat trade by identifying alternative sources of protein for local communities.

Current evidence suggests that the highest risk of zoonotic transmission occurs in moderately fragmented habitats in tropical regions. Thus, 'building back better' must prioritise the conservation and sustainable use of ecosystems that maintain large intact habitats in the tropics as this will secure the direct and indirect economic value of this globally important biodiversity while reducing the risk of zoonotic spillover. Of course, protected and conserved areas will make a critical contribution to securing intact landscapes.

It is imperative that the biodiversity community should make connections with public health experts, and

encourage the public health community to emphasise these linkages and help convey the importance of maintaining healthy ecosystems and habitats to reduce the risk of pandemics to a wider audience.

This approach will not only bring benefits for biodiversity, but also critical climate change mitigation, adaptation and land degradation benefits. The Global Environment Facility (GEF) is uniquely positioned to support countries, to work across sectors and collaborate with global multilateral environmental agreements to achieve these collective benefits for nature and humanity.

A recent article in Science estimated that significantly reducing the transmission of new diseases from tropical forests would cost, globally, between US$ 22.2 and US$ 30.7 billion each year. The COVID-19 pandemic will likely end up costing between US$ 8.1 and US$ 15.8 trillion globally – 500 times more than these preventative measures[1,2].

As we have often noted in the biodiversity community, an ounce of prevention is worth a pound of cure. We have yet another opportunity in the upcoming Conference of the Parties to the Convention on Biodiversity to convey this message globally. This presents the GEF with a unique opportunity and responsibility to help countries 'build back better' after the COVID-19 crisis.

This crisis has highlighted to the world, in a way none of our institutions alone ever could, the need to understand and address the root causes of zoonotic diseases in a holistic and urgent way.

Recognising the dire consequences – but also the opportunities – of where we are today, governments, business and civil society have started to make plans for recovery from this crisis.

In June 2020, the GEF released a set of immediate, medium- and longer-term actions to help address the current crisis and reduce the probability of new environmental crises emerging. The response spans measures to address wildlife trading, deforestation, urban sprawl and other pressures on ecosystems that increase the risk of zoonotic transmission.

The response also includes efforts to support a green economic recovery consistent with sustainable and nature-based development. These steps focus on the acceleration of needed transformations to economic and social systems to reduce their conflict with nature – building on efforts already underway under the GEF-6 Integrated Approach Pilots and the GEF-7 Impact Programs on: Food Systems, Land Use and Restoration; Sustainable Cities; and Sustainable Forest Management.

The mandate of the GEF, combined with its global vision and reach, places it in a unique position to work with the community of nations to ensure that the COVID-19 pandemic ceases to be a global threat and becomes an opportunity for lasting change. While the challenges are many, the current crisis can serve to reset humanity's relationship with the natural world by embracing norms and practices that lead to a more sustainable future for people and nature.

ENDNOTES

[1]https://science.sciencemag.org/content/369/6502/379

[2]To estimate the total financial cost of COVID-19, researchers included both the lost gross domestic product and the economic and workforce cost of hundreds of thousands of deaths worldwide.

ABOUT THE AUTHOR

Carlos Manuel Rodríguez is CEO and Chairperson of the Global Environment Facility. He is a former Environment and Energy Minister in Costa Rica.

RESUMEN

El virus SARS-CoV-2, que hasta ahora ha causado 103 millones de casos de COVID-19 y 2.250.000 muertes, tiene un origen zoonótico. El peligro de nuevas pandemias de origen zoonótico es cada vez mayor, debido –en parte– a la mala gestión del uso de la tierra, especialmente en los trópicos. Esta amenaza podría reducirse en gran medida invirtiendo en la conservación de la naturaleza por una pequeña fracción del costo de hacer frente al COVID-19. El Fondo para el Medio Ambiente Mundial aboga firmemente por una recuperación económica verde pos-COVID, en forma de desarrollo sostenible basado en la naturaleza.

RÉSUMÉ

Le virus SRAS-CoV-2 qui jusqu'à présent a causé 103 millions de cas de COVID-19 et 2 250 000 décès, est d'origine zoonotique. Le danger de nouvelles pandémies d'origine zoonotique risque d'augmenter, en partie à cause d'une mauvaise gestion de l'utilisation des terres, en particulier sous les tropiques. Nous pourrions réduire considérablement cette menace en investissant dans la conservation de la nature pour une infime fraction du coût de la gestion de la pandémie de COVID-19. Le Fonds pour l'environnement mondial soutient et préconise fortement une reprise économique verte après COVID, sous la forme d'un développement durable et axé sur la nature.