



# Addendum to the IUCN Programme 2021–2024

Impacts and implications of the COVID-19 pandemic and health on the IUCN Programme Nature 2030

World Conservation Congress  
Marseille, France  
3–10 September 2021



# Addendum to the IUCN Programme 2021–2024

Impacts and implications of the COVID-19 pandemic and health on the IUCN Programme Nature 2030

Approved by the IUCN World Conservation Congress on 8 September 2021

# Addendum to the IUCN Programme 2021–2024

## *Impacts and implications of the COVID-19 pandemic and health on the IUCN Programme Nature 2030*

### **1. Scope, structure and purpose of this addendum**

In late 2019, while IUCN was consulting its Members on the framing and content of the Union’s 2021–2024 Programme (**Nature 2030**), the COVID-19 pandemic was emerging. In February 2020, the IUCN Council considered whether to revise the text to reflect the anticipated consequences of the pandemic, which caused the most profound global disruption of the last 70 years. It concluded that COVID-19 did not fundamentally change the rationale or structure of **Nature 2030** but rather reinforced its relevance and importance. However, Council did undertake to develop a short companion document to address the broader implications of the pandemic and human health for the IUCN Programme 2021–2024. Council decided that the document should be a formal addendum to the Programme, and agreed it should be discussed and approved by the IUCN Membership.

This document is a response to that Council decision. The intention is to integrate the issue across the five priority programme areas and three enablers rather than create a new stand-alone theme. This addendum provides high-level strategic guidance to enable all IUCN constituencies to interpret how the existing ambitions within **Nature 2030** can be fully harnessed in the context of the pandemic and recovery from it in what has been called ‘the era of pandemics’<sup>1</sup>. The addendum follows the structure of **Nature 2030** with the commentary arranged by prioritised Programme areas (People, Land, Water, Oceans and Climate, addressing “COVID-19 and post-pandemic recovery” specifically, and then “health and conservation” in general, for each) and enablers (Technology, Public Awareness and Finance).

### **2. Introduction**

IUCN expresses sincere sympathy, condolences and solidarity to our colleagues around the world for the ongoing suffering experienced by so many as a result of COVID-19.

The emergence of COVID-19 in early 2020 was a stark reminder of the vulnerability of people, livelihoods and economies to changes in the biosphere. COVID-19 was not the first zoonotic disease to emerge in the last century. Of the hundreds of new diseases that have emerged during this time, about 60% of these were zoonoses (from other animals)<sup>2</sup>, and more than two-thirds (70%) of these originated in wild animals (as opposed to domestic animals), according to recent studies<sup>3</sup>. The virulence and transmissibility of COVID-19 underline the importance of understanding the social, economic and ecological conditions that enable the emergence of zoonoses. These underlying causes of pandemics are related to the environmental changes that drive biodiversity loss and climate change. According to the IPBES workshop report on biodiversity and pandemics “unsustainable exploitation of the environment due to land-use change, agricultural expansion and intensification, wildlife trade and consumption, and other drivers, disrupts natural interactions among wildlife and their microbes, increases contact among wildlife, livestock, people, and their pathogens and has led to almost all pandemics.”

Zoonotic diseases threaten public health and the health of livestock and wildlife. The disease burden is often felt disproportionately where health systems are weakest, those most dependent on susceptible livestock, and those people who work in and gather food, fibre and fuel from natural habitats.

---

<sup>1</sup> IPBES (2020). *Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services*. Daszak, P. et al. Bonn, Germany: IPBES Secretariat.

<sup>2</sup> Lloyd-Smith J.O. et al. (2009). ‘Epidemic Dynamics at the Human-Animal Interface’. *Science* 326:1362–1367.

<sup>3</sup> Allen T. et al. (2017). ‘Global hotspots and correlates of emerging zoonotic diseases’. *Nature Communications* 8(1); Jones, K.E. et al. (2008). ‘Global trends in emerging infectious diseases’. *Nature* 451: 990–993.

The COVID-19 pandemic has had a dramatic, if still to be fully understood, impact on society and global progress in advancing the Sustainable Development Goals (SDGs). In addition to the 155 million cases and 3.2 million deaths worldwide (as of May 2021), the pandemic has cut life expectancy in several countries by a year at least; the impacts on life expectancy worldwide are yet to be determined. In addition to the mortality and morbidity associated with COVID-19, studies indicate that pandemic-associated declines in GDP will have further impacts on life expectancy and quality of life. The year 2020 saw a global economic contraction estimated by the International Monetary Fund at -3.5%. According to the International Labour Organization, almost 9% of global working hours were lost in 2020, equivalent to 255 million full-time jobs. At the same time, falling revenues have combined with costly pandemic relief measures to increase global government indebtedness to levels not seen since post-World War II reconstruction. The pandemic has also had substantial impacts on wildlife conservation, such as the suspension of ranger patrols, resulting increases in illegal logging and poaching, and the loss of revenue for protected and conserved areas and related conservation activities. The management of the pandemic introduced further impacts on human managed systems such as the culling of animals farmed for production. All this means that the impacts of the COVID-19 pandemic may persist for years, exacerbating inequality, reducing public expenditure on social spending, including conservation, and undoing some of the progress made towards global goals, including the SDGs, over the past decade. At a time when nature is declining at rates unprecedented in human history and with much to be learned regarding the links between human health, the environment, and the role of nature, the imperative to protect and conserve nature is more vital than ever. On the positive side, there has been an accelerated acknowledgement in many countries of the importance of access to nature, and an appreciation of the value of a healthy environment for human health and well-being. There are signs that this may translate into additional investments into nature-positive initiatives: “building back better”.

### ***3. Impacts and implications of COVID-19 on prioritised Programme areas***

#### **3.1. People**

##### ***3.1.1. People, COVID-19 and post-pandemic recovery***

The COVID-19 pandemic has thrown issues of social inequality, health inequality and economic inequality into sharp relief by disproportionately affecting economically vulnerable groups. It also highlights the importance of nature’s benefits to the well-being of people and of restoring the relationship between people and nature. As the world mobilises post-pandemic recovery, IUCN will advocate for sustainable recovery approaches that put nature and equity at the heart of economic policies, taking into account the environmental and socio-economic determinants of health. IUCN will focus on addressing persistent economic and social inequalities, especially for those who are economically marginalised, in rights to and benefits from natural resources that global shocks such as COVID-19 exacerbate. IUCN will champion strengthened natural resource governance within the ecosystem approach as an appropriate post-pandemic response, work with governments, environmental defenders and others to promote the leadership of custodians and stewards of natural resources who have been marginalised in terms of their voice, recognition and agency such as indigenous peoples and local communities, women and youth.

##### ***3.1.2. People, health and conservation***

The World Health Organisation highlights nature as fundamental to human health; central to this is an interdisciplinary “**One Health**” approach, which adopts a collaborative, multisectoral and transdisciplinary approach, recognises and integrates the connections between the health of people, animals and plants, and their dependence on functioning environments to achieve optimal health and well-being outcomes for all. IUCN will contribute expertise to advancing a One Health policy that helps reduce the risk of zoonotic spillovers and prevent and contain emerging infectious diseases. IUCN will promote the integration of environmental health in health policies and vice versa, advance the mitigation of pollution and other environmental impacts detrimental to both nature and human health, and support the development of necessary legal, policy and operational frameworks. This includes activities that range from supporting the maintenance of indigenous and local knowledge, rights, and practices that sustain environmental health, to developing regulatory frameworks that eliminate illegal or unsustainable encroachment and ensure that

wildlife harvest, use and trade is legal and effectively managed, sustainable<sup>4</sup>, and poses no significant risk of pathogen spillover, and support legal and sustainable use of biodiversity and enforcement of the environmental rule of law.

## 3.2. Land

### **3.2.1. Land, COVID-19 and post-pandemic recovery**

This programme area will contribute to 'building back better'. It will help overcome the high impact of COVID-19 on rural economies and ensure that investment for recovery contributes to the prevention of unsustainable ecosystem conversion, unsustainable wildlife trade, unsustainable use of traditional medicines, unsustainable tourism, and unsustainable agriculture, while strengthening land health, community resilience and sustainable use, trade, tourism and supply chains. Nature-based Solutions (NbS) implemented across society will help guide the restoration and sustainable management of productive and city landscapes to yield multiple societal benefits. Investment in sustainable management of critical ecosystems, including effective governance and management of protected areas and other effective area-based conservation measures, will help protect societies from future shocks, reduce risk of zoonoses, and reduce biodiversity loss. Increased attention will be paid to mainstreaming full natural capital accounting in the management of production landscapes, and into the national and international footprints of trade and consumption which drive these.

### **3.2.2. Land, health and conservation**

Effective ecosystem management will mitigate the risks of zoonotic disease by maintaining and restoring the integrity and function of natural ecosystems, as well as reducing exposure and vulnerability to natural hazards, and decreasing wildlife-threatening human activities. Action to conserve, restore and sustainably manage critical ecosystems that support land and soil productivity and livelihoods, including agroecosystems, will contribute to food and water security, with positive benefits for human health and well-being. The contributions of protected areas and other effective area-based conservation measures for their medicinal, recreational, cultural, psychological and educational value will be enhanced, including in urban settings. Nature-based Solutions to improve urban living conditions will be scaled up while reducing the ecological footprint of urban centres.

## 3.3. Water

### **3.3.1. Water, COVID-19 and post-pandemic recovery**

COVID-19 has highlighted the importance of the supply of water to face pandemics, given the role of simple hand washing as an important prevention method. Recovery from the pandemic must maintain and restore the functioning of natural freshwater systems through practical applications, policy and regulatory reform. Ensuring sustainable and adequate access to water of acceptable quality requires strengthening resource management to incorporate Nature-based Solutions, and addressing water rights and access. Moreover, water security is essential for preventing and combatting future pandemics. Similarly, sustainable harvesting in inland waters must be an essential component of post-pandemic, natural resource management. Due to increased poverty caused by pandemic-driven economic impacts, these resources (e.g. inland fisheries) are facing growing risk of unsustainable exploitation. IUCN will identify and address human health implications in freshwater ecosystem integrity, species and restoration investments and sustainable management actions. Combined with this, IUCN will promote the central role of women, marginalised and indigenous groups, youth and local communities in both the management of aquatic resources, and post-pandemic recovery activities.

### **3.3.2. Water, health and conservation**

Investment in sustainable management, species and habitat protection, and restoration of freshwater ecosystems at all scales is fundamental to meet underlying human health and food security needs within SDGs 2, 3 and 6. Moreover, this investment should accelerate actions under SDG 15 to ensure that freshwater systems are able to provide essential services and benefits for people and nature in the future. IUCN will help identify Nature-based Solutions investments, taking actions to support water, sanitation and

---

<sup>4</sup> CBD definition. <https://www.cbd.int/convention/articles/?a=cbd-02>

health. These will also maintain aquatic biodiversity and ecosystem integrity, through safeguarding the quality of source waters, reducing pollution, and maintaining or restoring these systems to maximize their functioning. The Union's work will develop and source the best available scientific assessments and knowledge for decision makers.

## 3.4. Oceans

### **3.4.1. Oceans, COVID-19 and post-pandemic recovery**

Protecting and restoring marine biodiversity and healthy ecosystems is key to boosting resilience and reducing the risk of the emergence and spread of future diseases. In the short term, it will be necessary to assess the knock-on effects of various measures against COVID-19 on the oceans, such as increased plastic pollution. More generally, assessing the impact of post-COVID sectoral interventions on the ocean and its resources is required to develop management approaches that reduce the risk of unintended negative consequences. Recognising that anthropogenic stressors have greater impacts than the pandemic on some ocean sectors, e.g. mariculture, there is an urgent need to address the root causes of the pandemic and drive economic recovery in ways that address the cumulative impacts on the marine environment. The IUCN Programme will work proactively to manage new risks caused by the COVID-19 pandemic and those risks deriving from climate change. Integrated coastal zone management and marine spatial planning are essential to catalyse a sustainable and equitable blue recovery, promoting long-term planning using integrated ocean management. Applying the IUCN Global Standard for Nature-based Solutions to conserve and restore coastal and marine ecosystems is integral to a post-pandemic recovery that supports more resilient coastal communities.

### **3.4.2. Oceans, health and conservation**

Ocean pollution threatens the health of more than three billion people according to research from Boston College's Global Observatory on Pollution and Health. Interactions between ocean and human health are numerous, complex and its cumulative impacts largely unknown. Plastics, toxic metals, sewage and agricultural run-off, and marine noise affect the services the ocean provides. Coastal fishing communities, small island nations and indigenous peoples will be the most vulnerable. The Programme will advance an integrated cross-sectoral approach to addressing risks to human health from activities negatively impacting coastal and marine environments while building buffers through the protection and restoration of marine ecosystems. Central to this action is holistic, science-based decision-making that benefits people and planet.

## 3.5. Climate

### **3.5.1. Climate, COVID-19 and post-pandemic recovery**

The recovery from the COVID-19 pandemic coincides with a pivotal time in addressing the causes of climate change and supporting climate adaptation to prepare for and respond to current and future climate impacts. One cannot be traded-off against the other. Post-pandemic stimulus interventions offer governments a unique opportunity to speed the transition to a low-emissions economy whilst tackling the biodiversity crisis to create a net-zero, nature-positive world in support of the goals agreed under the Paris Agreement on Climate Change. Investing in Nature-based Solutions can stimulate economic activity, create jobs, support livelihoods and reduce inequalities while also storing carbon and building resilience. This is a critical climate-smart recovery measure that will be supported and advocated for through IUCN's climate programme area.

### **3.5.2. Climate, health and conservation**

Climate change interacts in new and complex ways with human health and the natural world. Some of these interactions pose increased risks to human health that society still needs to better understand (e.g. changing patterns of disease spread), while others pose risks that we are already equipped to address (e.g. mitigation of urban heat-island effects through Nature-based Solutions). IUCN will examine and map these interactions through science-based assessments, and work to identify interventions that can maximise co-benefits and minimise adverse outcomes for people and nature. It will also examine the health implications of climate change responses as they relate to nature. Furthermore, involvement of

IUCN Members will be crucial to address these health- and biodiversity-related issues at different high-level meetings in the years to come.

## **4. Impacts and implications of COVID-19 on Enablers**

### **4.1. Technology, data and innovation**

The most overt impact of COVID-19 on technology has been through online work, essential for maintaining productivity through lockdowns and physical distancing. This includes virtual meetings, webinars, scheduling, audience participation, voting, document sharing and training. IUCN's decentralised nature has meant that the culture already exists for embracing these technologies, but it is essential that the Union continues this uptake. Challenges include participation in low connectivity regions, rising financial costs with burgeoning demand for IT services, and growth of internet crime.

One negative implication of increasing dependence on technology has been the disconnect of society (especially young people) from nature. This contributes to “nature deficit disorder”, decreases engagement in conservation, and drives detrimental health impacts through being “always on”. IUCN will combat this through supporting the growth of citizen science to mobilise public participation in big data collection for conservation (including for example in monitoring biodiversity, combatting wildlife crime, etc.), with the co-benefit of improving physical and mental health. The COVID-19 pandemic should also be the opportunity to strengthen technological and data capacities in order to better monitor ecosystems and wildlife and detect zoonotic spillovers at early stage, e.g., through the enhanced interoperability of monitoring systems, ensuring free, prior and informed consent.

### **4.2. Communication, education and public awareness**

The dissemination of the Union's work on the pandemic and on human health more broadly is critical to ensure uptake and impact. Optimising the contribution of the Programme to post-pandemic recovery and human health, including the prevention of future pandemics, requires targeting and working with different audiences, inside and outside the institutional sphere. This means it will be critical that the Union capitalises on the diversity of its membership and the strengths and reach of its different components. IUCN's membership, which comprises a multiplicity of States and government agencies, NGOs and indigenous peoples' organisations, is especially well-placed to inform and mobilise the audiences needed to enhance the Programme's implementation.

It is essential that this diversity of communications capacity is brought together under a coherent and coordinated approach. For this, the Union will enhance communications education and public awareness programmes by taking full advantage of the strengths of its membership and Commissions, especially in virtual communications (electronic media, social media, webinars, etc.) which have become so crucial over the course of the pandemic, and counting on support from the Secretariat where appropriate. It will also highlight “bright spots” in how the pandemic's impacts have been handled, for instance in protected areas, and promote solutions for a different relationship with nature in order to reduce the risk of future zoonoses. The PANORAMA solutions platform can aid in systematising and disseminating such examples. IUCN's broad membership could for instance enhance its involvement in One Health networks to monitor infectious diseases and prevent pandemics at all scales.

### **4.3. Investments and financial sustainability**

The economic impacts of the pandemic have been stark, including the loss of lives and livelihoods and a severe economic downturn. Countries have responded with unprecedented economic recovery packages, but despite calls for “building back better”, nature does not yet feature significantly across the board, despite some encouraging signs in a number of countries. However, more than ever, economic actors recognise their dependency on nature. IUCN will continue to provide leadership and assistance in the critical shift that is needed towards biodiversity- and nature-positive economic development and financial flows, advanced for example through full natural capital accounting.

Avoiding future pandemic risks associated with degradation of nature means that addressing the direct and indirect drivers of the degradation and loss of nature is a high priority. Economic slowdown along with lockdowns has had the effect, albeit perhaps temporary, of reducing pressures on nature, and has brought into focus the importance of nature for well-being and rejuvenation. Both the physical and mental well-being of people, especially youth, has been put to the test. A new economy that values and integrates nature into economic and investment decision making must become the reality. Private and public expenditures, accounting and investments must consider environmental impacts and be subjected to regular environmental, social and governance risk assessments. Further, governments are urged to act to eliminate direct and indirect subsidies harmful to biodiversity.

## **Incorporation of efforts to address post-COVID-19 into the work of the IUCN Commissions with mandates approved for 2021–2024**

### **Commission on Ecosystem Management (CEM)**

CEM has established a thematic group on Human Health and Ecosystem Management that deploys strong interdisciplinary research expertise to examine the connections between the emergence and spread of zoonotic diseases, human health and well-being, land-use change, ecosystem degradation and biodiversity loss. It has framed a conceptual model (IGNITE) as a theoretical background to improve long-term surveillance of infectious disease emergence. CEM is also assisting field experiments to improve understanding of zoonotic disease transmission mechanisms, the routes that expose human populations to infection, and ecosystem management strategies that can help mitigate these risks.

### **Commission on Education and Communication (CEC)**

CEC responded to the COVID-19 crisis by integrating the health-biodiversity intersection into IUCN's work on education, #NatureForAll, and Union-wide youth engagement. This was delivered through two major initiatives focused on accessibility to remote learning. The first, [#NatureForAll Discovery Zone](#), is a free, open and crowd-sourced repository of nature-related educational material. It allows #NatureForAll partners, Commission members and others to both share resources and access a database of almost 400 resources in 15 languages. The second was IUCN's first-ever [Global Youth Summit](#) in April 2020, which was fully virtual and free, allowing for greater inclusivity. The Summit reached well over 10,000 people worldwide, strengthening connections between young leaders and global networks, encouraging interdisciplinary learning, providing a space for storytelling on conservation, and adding momentum to growing youth movements for nature and climate.

### **Commission on Environmental, Economic and Social Policy (CEESP)**

CEESP's #BuildBackBetter Dialogue series has focused on topics ranging from spirituality to environmental change, producing a set of recommendations related to the post-pandemic era. CEESP has incorporated these recommendations into its research plan, including reimagining conservation, the circular economy, biodiversity and human health, and the impacts of recovery on communities and gender. This research plan will guide CEESP's holistic response to the post-pandemic world providing the basis for advocacy on transformative change, equitable recovery and social justice to address the climate crisis. CEESP will hold six more dialogues prior to the IUCN World Conservation Congress and will release several research papers.

### **Species Survival Commission (SSC)**

SSC has produced statements on the relationship between species and human health including: [Guidelines for Working with Free-Ranging Wild Mammals in the Era of the COVID-19 Pandemic](#), [It is Time for a Global Wildlife Health Authority](#), [Great apes, COVID-19 and SARS CoV-2](#), [Recommendations to reduce the risk of transmission of SARS-CoV-2 from humans to bats](#), and a [Statement from Pangolin Specialist Group Chair on possible link between pangolins and coronavirus](#). An SSC "Situation Analysis on the Roles and Risks of Wildlife in the Emergence of Human Infectious Diseases" is underway, examining inter alia the frequency of direct naturally-acquired human infection (zoonosis) from wildlife reservoirs, and the risks of emerging pathogens from wildlife trade in comparison with the domestic livestock trade.



### **World Commission on Environmental Law (WCEL)**

WCEL is applying its expertise to promoting legal and regulatory means to avert zoonotic spillovers of infectious diseases, including through strengthening the laws that sustain wildlife health and reduce habitat fragmentation, in partnership with the Global Pandemic Network, International Council of Environmental Law, and others. WCEL is also deploying its knowledge on spatial planning, land-use laws and environmental impact assessments at all levels as a legal contribution to framing a holistic One Health approach, as defined by the UN Environment Assembly in 2017 [UNEP/EA.3/RES 4 (2017)].

### **World Commission on Protected Areas (WCPA)**

WCPA has long promoted the role that protected areas can play in contributing to societies' physical and mental health. WCPA's Health Specialist Group is working with protected area agencies and other partners to promote protected areas as a cost-effective, Nature-based Solution to national and local public health strategies. WCPA has a dedicated task force investigating the impacts of the pandemic on protected areas, wildlife tourism and community livelihoods, and has produced a special issue of the journal *PARKS* devoted to COVID-19 as a knowledge base for future action. It is promoting investment in protected areas as part of post-pandemic economic recovery packages as a means to prevent future pandemics and to address other global challenges.

## **5. Impacts and implications of COVID-19 on leadership and partnership**

Implementing the Nature 2030 Programme (2021–2024) to include post-pandemic and health perspectives can only be achieved through the types of partnerships and leadership identified in **Nature 2030**. As this document makes clear, the scale of the task over the next decade is immense and will require leadership at all levels. Collaborating with both institutional and individual partners, including governments, private sector (business and financial institutions), international organisations and NGOs, but also individuals, grassroots environmentalists, communities and indigenous people, will be critical to produce the evidence, tools and momentum for a sustainable post-pandemic recovery. The agency of groups including indigenous peoples, women and youth is even more important to translate these aspirations into reality. New partnerships will also be necessary, notably with the public and private financial sectors that will determine where and how post-pandemic resources are prioritised and allocated. The One Health approach, linking environmental, animal and human health, in particular, will require new alliances and collaborations. The IUCN Finance for Nature and Nature-based Recovery initiatives will provide timely and clear ways and tools to mobilise Members to engage this sector. Equally, building on the work done by the IUCN Commissions, and a closer and more strategic alliance with the health sector, both internationally and nationally, will be necessary to drive One Health perspectives into public health policy.



INTERNATIONAL UNION  
FOR CONSERVATION OF NATURE

WORLD HEADQUARTERS  
Rue Mauverney 28  
1196 Gland, Switzerland  
Tel +41 22 999 0000  
Fax +41 22 999 0002  
[www.iucn.org](http://www.iucn.org)