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## The long-term effects of COVID-19: Poverty alleviation in global cooperation on health and nature issues

### Focal facts and findings:

- The COVID-19-pandemic has spurred attention to interlinkages between health and nature.
- Zoonoses are infectious diseases that can jump from animals to humans.
- The pandemic highlights the double need to conserve biodiversity: i) for bioprospecting pharmaceuticals, ii) for reducing contact with zoonoses.
- The 'One Health' approach combines human, animal, and ecosystem health – issues that are otherwise dealt with in isolation ('silos').
- China is playing an increasingly central role, including in global health and environmental arenas.
- In the wake of COVID-19, growing poverty and inequity challenge the Sustainable Development Goals (SDGs).



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## Health and nature

The COVID-19 pandemic brought greater attention to interactions between health and nature, followed by expectations that these issues would be brought closer together through the 'One Health approach', with better integration of poverty issues in health and nature governance.

In order to reduce exposure to zoonoses and to maintain nature's provision of medicines, we must halt the loss of biodiversity.

International forums with scant relations prior to the pandemic have become more attentive to each other's agendas (see Box 1). Is this short-lived, or will it generate lasting changes in health and nature interactions? What might such changes entail for poverty alleviation?

At the general level, health and nature issues raised by the pandemic may affect most of the UN Sustainable Development Goals (SDGs). In the longer wake of COVID-19, attaining the SDGs may be hampered by economic recessions and increasing inequalities world-wide (IPBES, 2020). Travel restrictions have already affected ecotourism in many African countries, reducing incomes for poverty-stricken populations (Ibid).

With its growing global influence, China plays a significant role and has been increasing its presence also in many African countries. During the pandemic, China has been criticized for lack of transparency – but has also been lauded for supplying vaccines to least developed countries (LDCs). China heads the 15th Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD), to be held in Montreal in December 2022.

This FNI Brief sums up some of the major interactions between the issues, actors and arenas involved in the One Health approach, as activated by Covid-19.

### Zoonoses and biodiversity

There is global consensus on the importance of including pandemic responses in efforts to stop the loss of biodiversity and nature/wilderness.

Some species (rodents in particular) are much more likely to be zoonotic hosts than others: and these proliferate in human-dominated landscapes (Dasgupta, 2021). Improved biodiversity conservation is hence likely to decrease the risk of human exposure to zoonotic pathogens, while agricultural and livestock systems are increasingly encroaching on natural areas (Keesing and Ostfeld, 2021).

### Zoonoses and agriculture

Historically, the domestication of animals has led to livestock pathogens infecting humans, as has been the case with influenza, measles and smallpox (SBSTTA, 2017, p. 3). The pathogens that spill over to humans are likely to have originated from contact with domesticated species (Ibid). Humans and livestock now constitute 96% of the world's mammalian biomass, and more wild species are threatened with extinction than ever before in human history (Pörtner et al., 2021).

The central role of land-use changes in boosting the emergence of zoonoses is linked to the explosion of human and livestock populations. Contacts among people, livestock and wildlife increase as wildlife habitats diminish.

Although more intensive food-production systems may relieve the pressure on dwindling natural ecosystems, such intensive food systems could themselves be involved in spreading diseases, thereby posing zoonotic challenges.

### Zoonoses, markets, and trade

Global and local trade in food and medicines plays an important part in the spread of zoonoses.

Local informal (live animal, or 'wet') markets in poor countries are central to local livelihoods but may involve illegal trade (and export) of wildlife. In addition, the COVID-19 pandemic has showed that also intensive, high-tech, food systems may spark the spread of the disease (UNEP et al., 2020).

Several reports following the corona pandemic note that the burden of policy responses may fall disproportionately on the world's poorest populations (UNEP et al., 2020: 42). For poor people, some of the responses may entail reducing access to

#### Box 1

*CBD: Convention on biological diversity;*

*WHO: World Health Organization;*

*CITES: Convention on international trade in endangered species of flora and fauna;*

*WTO: World Trade Organization;*

*FAO: UN Organisation on food and agriculture;*

*OIE: World Organization for Animal Health  
SDG: Sustainable Development Goals;*

*IPBES: Intergovernmental Panel on Ecosystem Services and Biodiversity;*

*IPCC: Intergovernmental Panel on Climate Change.*

animal sources of food, for instance through the large-scale culling of domestic animals, and the banning of informal markets (UNEP et al., 2020: 23). See Box 2 and Box 3.

## Health and nature: medicines

Medicines are a clear example of the vital connection between health and biodiversity. Like zoonoses, the bulk of medicines originate from nature.

The pandemic has brought renewed attention to the CBD regime of Access and Benefit Sharing (ABS) from the use of genetic resources. With health and biodiversity relationships figuring more prominently on the political agenda, there is greater attention to genetic resources as sources of medicines, in turn depending on how biodiversity is governed (UNEP, ILRI, 2020).

Bioprospecting for medicinal purposes takes place by directly collecting organic material from nature, and through genetic sequencing of such material that has entered biobanks – often in the form of digital sequence information (DSI). DSI remains a controversial issue in the approaching CBD COP15 negotiations: it could undermine the ABS regime, which has been envisaged primarily as a financial mechanism to support poor countries. Should DSI be defined as part of genetic resources? Should a benefit-sharing mechanism specifically tailored for DSI be established?

## Global dialogues on health and nature

‘One Health’ involves the UN Food and Agricultural Organization (FAO), the WHO and the World Organization for Animal Health (OIE). However, UNEP and the IPBES hold that environmental considerations are insufficiently incorporated in the One Health approach. They recommend involving the CBD and CITES in One Health, to deal with zoonoses and biodiversity conservation.

With its third objective of the fair and equitable sharing of benefits from genetic resources, the CBD could also have a vital role to play in promoting fair and equitable vaccine distribution.

At the United National Environment Assembly (UNEA) in February 2022, member-states disagreed deeply on how to proceed on the linkages between ABS, DSI and One Health. Developing countries are adamant on linking health and biodiversity discussions to the ABS principles and on including DSI. They argue that the One Health approach is immature as it has failed to make this connection.

To improve the health and nature debates, better coordination may be needed also between policies on climate change and biodiversity. The IPCC (2022) report marks a watershed in linking the climate and nature crises, highlighting ecosystems and biodiversity at all policy levels and sectors. The report makes ample reference to human well-being, ecosystem, and planetary health, although it does not mention One Health.

## Health and nature at CBD COP15 and CITES Cop 19

When the COVID-19 pandemic broke out in 2020, it led to postponement of several meetings under the CBD. However, special events on biodiversity continued through online meetings, consultations, and webinars. Clearly affected by the pandemic, they highlighted the role of biodiversity in helping to prevent the spread of zoonotic diseases. Especially prominent was the 30 September 2020 Biodiversity Summit held on the margins of the 75th session of the UN General Assembly. Both the UN Secretary-General and several state leaders called for embedding nature-based solutions in pandemic recovery plans. The COVID-19 pandemic was also seen as an opportunity to rethink mankind’s relationship with nature and to align climate and biodiversity global goals. However, this momentum for biodiversity created by COVID-19 and zoonotic diseases appears to have been lost. When physical meetings were resumed in March 2022 to prepare for COP 15, there was no agreement on even taking note of the of the important 2019 IPBES Global Assessment Report on Biodiversity and Ecosystem Services, which recognized zoonotic and vector-borne diseases as significant threats to human health, and that emerging

### Box 2

*The Convention on international trade in endangered species of wild flora and fauna (CITES) already bans international trade in the pangolin, which is triply relevant:*

*The pangolin is a source of zoonoses, it is central in traditional Asian and Chinese medicine and thus the most illegally trafficked mammal, and it is severely threatened with extinction*

*(Vyawahare, 2020).*

### Box 3

*The World Trade Organization (WTO) and its TRIPS agreement on patent harmonization are central for access to Covid-19 vaccines.*

*Developing countries have notified the WTO concerning the right to compulsory licensing allowing increased production of patented Covid-19 vaccines.*

infectious diseases in wildlife, domestic animals, plants or people can be exacerbated by human activities.

Before the pandemic, the CBD COP 14 in 2018 had started a process to develop a global action plan to mainstream biodiversity and health linkages into national policies, building on the One Health approach. However, this work seems to have stalled, despite the epoch-making events that have taken place since the last COP in relation to biodiversity and health. The draft recommendation to COP 15 requests the Secretariat to complete the work programme only for COP16, planned to be held in 2024.

CITES will now have an opportunity to consider its role in relation to zoonotic diseases, if any, at its COP 19, 14–25 November 2022. A special zoonotic working group under the Convention has submitted a draft decision aimed at helping to mitigate the risk of pathogen spillover from international wildlife trade, mainly in the form of various instructions to the CITES Secretariat.

In addition, several African countries have submitted a stronger draft decision, recommending that countries (1) take into consideration the One Health approach in implementation of the Convention, (2) develop and strengthen synergies with appropriate national and international animal and public health authorities, and (3) develop a One Health CITES Action Plan to reduce the risk of zoonotic disease transmission during the events-chain from sale (including at markets) to shipment and transshipment of CITES-listed species and specimens.

### China hosting COP15

A process for a new global post-2020 framework for biodiversity with a further round of goals and targets is now underway. The aim was for this to be decided in Kunming, China, at COP 15. This had been planned for October 2020, but was postponed until 2021, due to the COVID-19 pandemic. The CBD Kunming (part 1) convened virtually, with a limited number of delegates physically present, and adopted the Kunming Declaration. This Declaration called for 'urgent and inte-

grated action to reflect biodiversity considerations in all sectors of the global economy' (ENB 2022).

At the Kunming COP, President Xi Jinping announced the establishment of a Biodiversity Fund: US\$232m (CNY 1.5 bill.) to assist developing countries, noting that 'China also calls for and welcomes contributions from other parties to the fund'. Xi also stressed that the combination of ecosystem degradation and illegal consumption and trade of wild animals heightens the risk of zoonotic diseases. 'China completely bans illegal wildlife trade, eliminates the abuse of wild animals, promotes the construction of ecological civilization, and demonstrates its determination to strengthen environmental protection.'

COP 15 underscores China's commitment to its overarching environmental policy, ecological civilization; the theme of the meeting was Ecological Civilization: Building a Shared Future for All Life on Earth (ENB 2021).

However, the follow-up meeting in Geneva, March 2022, did not give room for optimism, and it was pointed out that there were still many outstanding issues, with little time to deliver a package with quality and ambition. It was finally decided to move the COP15 to Montreal, Canada, (to be held 5–17 December 2022). China, as COP 15 president, will continue to preside over the Meetings, and will also convene the High-Level Segment and lead the facilitation of negotiations (CBD 2022). Moreover, China will fund the travel of Ministers from Least Developed Countries and Small Island Developing States to Canada to participate in the High-Level Segment (CBD 2022), in line with China's aid policy.

Biodiversity has received increasing attention in China, although not on a par with climate change. Notably, China has advocated nature-based solutions in the climate negotiations. Domestically, China scores high on conservation areas and reforestation policies, and has introduced ecological 'red lines' to restrict human and industrial activity.

This is also reflected in several recent policy papers:

The General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the 'Opinions on Further Strengthening the Protection of Biodiversity' in relation to the Kunming COP. The following goals for 2035 were listed: forest coverage rate to reach 26%, comprehensive vegetation coverage of grasslands to reach 60%, and increasing the wetland protection rate to about 60%. Also, the 'Overall plan for major projects in the protection and restoration of important national ecosystems (2021–2035)' is to be implemented.

Notably, the 14<sup>th</sup> Five-year Plan (2021–2025) highlights the need to 'implement major biodiversity conservation projects and build a biodiversity conservation network'.

Biodiversity protection is also related to poverty alleviation, with links to COVID-19 and the trade in wild animals. In 2017, a government-sponsored report by the Chinese Academy of Engineering estimated that this trade employs more than one million people (CNN 2020). That will make it is very difficult to enforce a ban, unless alternative opportunities for livelihoods can be provided (IDDRI 2020). Banning the trade in wild animals will have wider socio-economic impacts that might affect poverty alleviation efforts in rural areas in China.

In sum, environmental governance and biodiversity have received increasing attention in China, and COVID-19 has brought wildlife trade and management to the fore. China's policies and regulations on wildlife management and consumption have the potential to stem the illegal trade in wild animals. Recent regulations also reflect the country's growing commitment to protecting wildlife. However, there remains a need for better enforcement and greater public awareness to reduce the demand for such products.

For further reading, see list of central reports and articles below.

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