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Rethinking the rules of reality: How the coronavirus could paradoxically promote planetary health

Nicole de Paula



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Despite all the sadness, fear, bewilderment and frustration that it is generating, this pandemic is compelling us to “unlearn” and reshape our realities. In this time of radical uncertainty, two fundamental questions have emerged. Could the coronavirus open our eyes for the importance of a global transformation towards sustainable and resilient societies? More precisely, will we finally realize that human health is intrinsically dependent on healthy ecosystems?

For professionals involved in sustainable development research and practice, this tragedy inevitably leads to the important theme of planetary health, an evolving field of research and practice that stresses the deep interconnectedness between nature and human health.¹

Not if but when

The coronavirus is the most tangible illustration of the existential threats that we face in a globalized world.

In record speed, what was perceived as a Chinese problem became a pandemic.² As of 20 March 2020, 209 839 cases have been confirmed globally by the World Health Organization (WHO). More than 160 countries have been affected by the pandemic in just three months. This is the ultimate illustration of what a globalized world means.

Speaking at the World Health Summit in October 2019, WHO Director-General Tedros A. Ghebreyesus told the audience that a global pandemic was a matter of “not if, but when.” This statement was reiterated at the Prince Mahidol Award Conference in Thailand, a global high-level event gathering heavy-weights from the public health sector, and at numerous other public health conferences in recent years.

Why planetary health matters

The coronavirus is also the most tangible illustration of existential threats in the Anthropocene, the era in which humans have become the most powerful force impacting nature.

The current pandemic makes a well-known problem, the false promise of infinite growth, more tangible. This matters because it is the first time people are feeling a crisis and not merely acknowledging its existence. This could have radical implications in terms of future behaviour, a vital ingredient to drive societal change towards a more sustainable future.

I entered the world of public health in 2016 and have mainly focused on the synergies between the environmental and health agendas, with particular attention to infectious diseases.³ As an expert on international affairs, my task has been to bridge the gaps between these two communities to accelerate action. A significant obstacle to achieving this goal is the resistance of many actors to framing human health in the context of our environment. This is surprising considering that this issue is hardly a new one and that a substantial body of scientific evidence demonstrates the harmful impacts of environmental change.

We need to investigate why our current media coverage, with a few exceptions, does not raise these connections more often. If we want to focus on real solutions in the post-pandemic world, we will

¹http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-73292018000100213

²<https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>

³<https://www.frontiersin.org/articles/10.3389/fpubh.2019.00085/full>

have to get used to systemic thinking and value the interdependencies of human and natural systems – or, as it is also referred to: ‘planetary health’.⁴

The novel coronavirus: an invisible weapon activated by humans

The novel coronavirus SARS-CoV-2 and the resulting respiratory illness COVID-19 can be traced back to a wet market in Wuhan, China. Despite the deluge of news triggered by the unfolding pandemic, very little is reported about the synergies between environmental degradation, land-use change, unplanned urbanization, inequalities and the growing risks of zoonotic diseases.

Scientists estimate that more than 6 out of every 10 known infectious diseases in people can be spread from animals, and 3 out of every 4 new or emerging infectious diseases in people come from animals.⁵ COVID-19 is no exception. Like many other diseases, its initial transmission is a consequence of human interactions with animals and impacts on natural habitats. That’s why these diseases are known as zoonoses (From the Greek zoon for “animal” and nosos for “sickness”). Transmission does not necessarily occur through ‘natural’ interaction, rather it frequently occurs in the context of the capture, slaughter, transportation, trading and consumption of wildlife.⁶

The world has witnessed many examples of regional epidemics that also affected the global economy on a smaller scale. The SARS outbreak of 2002 was also caused by a coronavirus that originated in China and was linked to bats and later to civet cats. Likewise, an outbreak of Middle East respiratory syndrome (MERS) in 2012 has been linked to camels (and subsequently bats). Illnesses like H1N1 (or swine flu) and Ebola are also linked to animals.⁷

Responding to the coronavirus, China has ordered a temporary ban on the wet markets and tightened regulations on wildlife trade. However, the same measure was put in place during the SARS outbreak in 2002. Some experts have noted that the traders using these markets do not usually follow the highest hygiene standards. Viruses can quickly cross from one species to the next among animals awaiting processing at these so-called ‘wet markets’. Many blame the markets for what is happening now. Others are more cautious and argue that it is unfair to demonize wet markets, which are essential sources of food for people in Africa and Asia. Banning these markets, some say, could aggravate the problem by increasing illegal trade and worsening hygiene standards.⁸ Forbidding these markets is thus only one option to reduce the risk of spreading zoonotic diseases.⁹

Another more essential point has to do with a related issue that is often overlooked: devastating environmental changes and illegal wildlife trade. As former Executive Secretary of CITES¹⁰ John Scanlon puts it, the overexploitation of nature “includes the illegal, unregulated, and poorly regulated legal use of wildlife. The possible links between consuming wild animals, including the pangolin, the world’s most heavily trafficked mammal, and the spread of the corona virus has given added momentum, and a new sense of urgency, to discussions on how to end wildlife crime.”¹¹ Overall, what

⁴<https://www.rockefellerfoundation.org/our-work/initiatives/planetary-health/>

⁵<https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html>

⁶<https://www.pbs.org/wnet/nature/blog/the-novel-coronavirus-and-its-connection-to-wildlife/>

⁷<https://www.pbs.org/wnet/nature/blog/the-novel-coronavirus-and-its-connection-to-wildlife/>

⁸<https://www.theguardian.com/environment/2020/mar/18/tip-of-the-iceberg-is-our-destruction-of-nature-responsible-for-covid-19-aoe>

⁹<https://www.pbs.org/wnet/nature/blog/saving-pangolins-extinction/>

¹⁰ UN Convention on International Trade in Endangered Species of Wild Fauna and Flora

¹¹<https://www.linkedin.com/pulse/end-wildlife-crime-global-responses-must-move-times-scanlon-ao/?trackingId=Zs%2B3zBpJxAfEYLu5Ni8akQ%3D%3D>

matters is how unplanned urbanization and unsustainable patterns of consumption and production only worsen the risk of triggering new global crises. Contrary to what we thought before, it is humanity's destruction of natural habitats that enables new diseases to emerge and not the reverse. It is therefore likely that the COVID-19 outbreak could be just the first of many pandemics to come.¹²

The 2020 pandemic will draw attention to these connections and put the issue of illegal wildlife trading on the agenda of decision-makers in China. This is because China, as the leading consumer of endangered species, can really make a difference when it comes to reducing the demand for wildlife products.¹³ The question is: Will key actors act in the post-pandemic world?

Unsustainable leadership: a global health risk

Beyond the limits of current health care systems, this pandemic also highlights the risks of a political leadership vacuum in many democracies. We choose to react to crises rather than preventing them. This pandemic is giving us a hard lesson in the vital importance of sustainable development. Our current definition of "progress" is misleading and invites us to undermine the most basic of natural resources that sustain life on this planet. Crucially, faced with acute economic, environmental and social disruption, we are on the verge of losing the gains achieved through development policies in recent decades.¹⁴

One powerful message from the COVID-19 pandemic is that we are all in this together and, indeed, there is no Planet B. Everyone can be a part of the solution by altering their behaviour, while individualistic and irresponsible actions can have deadly effects on the most vulnerable populations.

A second important dimension of this crisis goes beyond the health and environmental sectors. If this virus has something positive to offer, it could be that it will reveal the shortcomings of climate deniers and nationalist leaders that reject the principles of sustainable development.¹⁵ While it is too early to say that they are losing support, leaders like Trump and Bolsonaro could struggle to maintain their bases if they fail to get a grip on the pandemic. So far, their public statements have not only lacked empathy but have also put lives at risk by denying science. Slogans like "America first" are fallacies in the context of an interconnected planet.

When horrific images of people dying alone in poorly equipped hospitals flood the media, empty rhetoric will not be enough to sustain political support. Brazil, my home country, is struggling at the moment with the lack of solidarity shown by President Bolsonaro, who continues to deny the seriousness of this pandemic by comparing COVID-19 to a "small flu".¹⁶ Instead, like Trump, Bolsonaro seems more concerned with his re-election campaigns than with the lives of his citizens.

Covid-19 reminds us of the urgent need for a holistic approach to health

It might seem counterintuitive but the real and lasting solutions to this crisis are to be found outside our hospitals. It is true that nurses and doctors are working courageously to help societies cope with

¹²<https://www.theguardian.com/environment/2020/mar/18/tip-of-the-iceberg-is-our-destruction-of-nature-responsible-for-covid-19-aoc>

¹³<https://www.nytimes.com/2018/11/19/science/wildlife-trafficking-china.html>

¹⁴<https://www.undp.org/content/undp/en/home/librarypage/sustainable-development-goals/global-trends--challenges-and-opportunities-in-the-implementation.html>

¹⁵<https://www.theguardian.com/world/ng-interactive/2019/mar/06/revealed-the-rise-and-rise-of-populist-rhetoric>

¹⁶<https://www.dw.com/pt-br/bolsonaro-nega-crise-e-culpa-imprensa-por-turbulência/a-52713055>

the consequences of a lack of preparedness for a long-predicted catastrophe.¹⁷ They deserve all our support in this critical moment. However, when it comes to designing solutions for our devastated economies, depressed populations and broken societies, we will need to reassess the role of governments, businesses, citizens and our individual and collective values. This is especially true when the moment to split the check for these rescue plans. Who gets what and how much will be defined by our priorities. Will they be the same in a post-pandemic world as they are now?

The public health crises of the Anthropocene press us to do two things: first, we must reconcile our economies with sustainable pathways to secure a low-carbon future; second, we must bridge the gaps between the natural and social sciences, given that no discipline will have a monopoly on solutions.

It is important to highlight that the goals of the planetary health community¹⁸ won't become a reality if inequalities are not addressed. Viruses have no regard for borders or social status. Inequality takes many forms, with socio-economic inequality perhaps the most evident. The hashtag #stayhomesave-lives only makes sense for those who have a house and some form of social safety net. What about the millions of homeless people around the world? Or vulnerable populations living in slums where social distancing is impossible?

The subject of human health in the Anthropocene requires some uncomfortable dialogues. How far are we prepared to go? It will depend on our courage to challenge vested interests, speak truth to power, and communicate with regular citizens through solution-oriented messages.

The pandemic is global but the responses varied, as are their results. Singapore, Taiwan, South Korea and Hong Kong have been praised for coping with the pandemic more successfully. Located close to the initial epicentre of the outbreak, these countries did not hesitate to take drastic and swift action to respond to the invisible threat. One essential aspect of Singapore's response was its whole-of-government character: inter-agency cooperation was crucial in addressing a fast spreading and complex problem. As a part of this response, Singapore's Ministry of Health cooperated with police to rapidly trace the contacts of individuals confirmed to be infected with Covid-19.¹⁹

In Europe, the situation remains dramatic. The death tolls in Italy and Spain, for example, have surpassed that of China.²⁰ In the countries that showed signs of better preparedness, travel restrictions, preventive measures and severe quarantine rules as well as increased hygiene, social distancing, and self-isolation measures were put in place. As noted elsewhere, "these countries have navigated the epidemic using a combination of testing, transparency (active citizen information), and citizen awareness guided by a timely and proactive government response. In other words, by not running while blindfolded."²¹

In a post-pandemic world, we can no longer be blind to our blindness

Science can always be improved but there is no doubt that our natural ecosystems are the fundamental basis for a healthy life on Earth. Despite the evidence, policymakers and health professionals tend to resist focusing on the links between nature and human health, despite some efforts of more progressive medical doctors.²²

¹⁷<https://www.politico.com/news/magazine/2020/03/07/coronavirus-epidemic-prediction-policy-advice-121172>

¹⁸www.planetaryhealthalliance.org

¹⁹<https://www.statnews.com/2020/03/23/singapore-teach-united-states-about-covid-19-response/>

²⁰<https://www.bbc.com/news/world-europe-51964307>

²¹<https://medium.com/presencing-institute-blog/eight-emerging-lessons-from-coronavirus-to-climate-action-683c39c10e8b>

²²www.klimawandel-gesundheit.de

The most popular definition of sustainable development appeared in the 1987 report *Our Common Future*. It is symbolic that Gro Harlem Brundtland, the former Prime Minister of Norway who led the commission behind the report, was also a medical doctor. But more than 30 years later, can we say that sustainable development is a reality? If we examine the indicators for the UN Sustainable Development Goals, the answer is clear: We are not on track to achieve any of the international targets that we have set ourselves.²³

If we want to drive change, we need to, above all, understand why we collectively fail to promote behaviour change towards sustainability at the global level. One of the reasons we are facing a pandemic with unprecedented consequences is because of the discrepancy between knowledge and implementation. This is because the promotion of policies that can safeguard our natural systems and consequently protect our health are more a political affair than a technical decision. Again, in the words of the WHO Director General, “health is a political choice” and therefore a matter of prioritization.²⁴ It seems thus more impactful from now on to concentrate less on gathering evidence about the state of the planet and more on how to inspire action that can ensure a healthy future for all.

Planetary health: the way forward

The health threats emerging from the Anthropocene are not distributed evenly. There are some urgent tasks to enhance incentives for collaboration and transdisciplinary research. We need, for example, to change incentives. It’s clear that funding structures urgently need to be modified in order to embrace innovative research that is not reductionist. Not everything will be solved by the next vaccine. To be clear: vaccines are band-aid solutions rather than the great transformations that we need to promote in our societies. The incentives for interdisciplinary work also must be improved. We need to get over ‘siloe thinking’.

The advantage of the Planetary Health community is that it is evolving both as a scientific body and a growing social movement. It’s more the second dimension that motivates me to continue working outside my comfort zone, that is with medical doctors, chemists, engineers, mathematicians, epidemiologists, lawyers and others. What I learned is that our unsustainable lifestyles have fundamental consequences for our health. More than predicting the next pandemic, we will be better off by enhancing our ability to adapt to uncertain realities. If we don’t embrace change, this won’t be the last time we will go through a global pandemic.

While in quarantine, you are probably reassessing what really matters in your life. Now, it is probably easier to believe that there are no healthy people on a sick planet. Feelings of helplessness are common but there is no better remedy for anxiety than action. This transformation towards planetary health will require not only governments but all of us. Together, we must make changes to support those in urgent need and re-imagine our future as a civilization. We simply cannot go back to business-as-usual after this crisis.

The COVID-19 pandemic has several untold stories and triggers wild possibilities. As James Baldwin once wrote: “not everything that is faced can be changed, but nothing can be changed until it is faced.”²⁵ Hope is not a strategy but an essential ingredient for change. Let’s pause, breathe, and think. If we accept this responsibility and highlight the importance of safeguarding nature as an act of enlightened self-interest, we will save lives. From this perspective, is it possible that Covid-19 will one day seem a blessing in disguise?

²³ <https://www.nature.com/articles/d41586-019-03907-4>

²⁴ Speech during the World Health Summit, October 2019, Berlin.

²⁵ https://www.brainpickings.org/2016/03/16/rebecca-solnit-hope-in-the-dark-2/?mc_cid=03c8b60353&mc_eid=b297d782f9



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Funded by the ministries of research of the Federal Republic of Germany and the State of Brandenburg, the Institute for Advanced Sustainability Studies (IASS) aims to identify and promote development pathways for a global transformation towards a sustainable society. The IASS employs a transdisciplinary approach that encourages dialogue to understand sustainability issues and generate potential solutions in cooperation with partners from academia, civil society, policymaking, and the business sector. A strong network of national and international partners supports the work of the institute. Its central research topics include the energy transition, emerging technologies, climate change, air quality, systemic risks, governance and participation, and cultures of transformation.

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Contact:

nicole.depaula@iass-potsdam.de

Address:

Berliner Strasse 130

14467 Potsdam

Tel: +49 (0) 331-28822-340

Faxl: +49 (0) 331-28822-310

Email: media@iass-potsdam.de

www.iass-potsdam.de

ViSdP:

Prof. Dr. Ortwin Renn,

Managing Scientific Director

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