

## PLANETARY HEALTH: COVID-19'S WARNING TO THE WORLD

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### Key Points>>>

- Outbreaks of infectious diseases are on the rise and are likely to become more common as human populations destroy habitats, forcing wildlife into closer proximity to humans.
- The field of planetary health is gaining attention, as the connections between human well-being and the health of overall ecosystems become evident. In the current world of uncertainty, the one thing that is certain is that the health of the planet and those that inhabit it are inextricably linked.
- Pollution has reduced and air quality has improved as countries have locked down to prevent the spread of Coronavirus. However, the impact of reduced greenhouse gas emissions and energy consumption will be temporary unless governments adopt new approaches to development that protect both the health of the planet and those that inhabit it.
- The COVID-19 crisis warns the world of the price it will pay without aggressive action by governments to reduce carbon emissions and adopt cleaner and healthier models of development.

### COVID-19

The rapid spread of Coronavirus Disease 2019 (COVID-19) is having profound social and economic impacts across developed and developing countries. On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic, and by April 11, 2020 there were nearly 1.7 million cases in 210 countries, areas, or territories, and over 100,000 people had lost their lives. The novel coronavirus that causes COVID-19 has been linked to animals and was reportedly transmitted to humans in a live animal market in Wuhan, China, in December 2019.

### Emerging infectious diseases

Research suggests that outbreaks of infectious diseases such as Ebola, SARS, MERS, bird flu, and now COVID-19 are on the rise. The US Centers for Disease Control and Prevention estimates that three-quarters of new or emerging diseases that infect humans originate in animals. Infectious outbreaks, like the novel coronavirus, threaten to become more common as human populations destroy habitats, forcing wildlife into closer proximity to humans. As humans continue to encroach on animal habitat and destroy fragile ecosystems, they come into ever-greater contact with animals. Further, illegal wildlife trade and illegal live animal markets are frequent causes of such diseases.

### A wake-up call on planetary health

While human health research scarcely considers the surrounding natural ecosystems, a relatively new discipline, planetary health, examines the health of human civilization along with the state of the natural systems on which it depends. The field of planetary health is gaining attention, as the connections between human well-being and ecosystem health become increasingly evident. While the field of planetary health is new, the idea of planetary health was brought to the attention of the world way back in 1993 when the Norwegian physician Per Fugelli wrote, “The patient Earth is sick. Global environmental disruptions can have serious consequences for human health. It’s time for doctors to give a world diagnosis and advise on treatment”.

This “treatment” necessitates radical redefinition of the models of development adopted by governments, which, till now, have promoted production and consumption at any cost. Today, three-quarters of the land-based environment and about 66% of the marine resources have been significantly altered by human exploitation. More than a third of the world’s land surface and nearly 75% of freshwater resources are now used for plant or livestock production. The expanding human footprint resulting in habitat loss and fragmentation disrupt critical animal behaviours and risk extinction of one million species of flora and fauna, many of which are predicted to be forced into extinction within just decades. The COVID-19’s global disruption provides a glimpse into the world disorder that lies ahead if we let temperature rise by more than 1.5°C above pre-industrial levels.

### **COVID-19 calls for reflection**

The COVID-19 pandemic is a wake-up call to the fact that, if governments continue business as usual, devastation of the Earth’s landscape for ‘development’ will persist at the cost of the planet’s natural resources and threaten the very survival of all species. Such a model of development, which serves governments’ insatiable appetite for ‘development’ putting profit over the cost of life, must be radically redefined. Active and visionary leadership from world governments is urgently needed to redefine approaches to development, which will be a stark departure from the environmental desecration the world has witnessed in recent decades. As countries scale up responses to COVID-19, an opportunity exists to align with the proposed redefined values of development, which embrace a safer planet and a promise of improved health for all.

### **Impact of COVID-19 on the environment**

As countries lock down and social distancing is enforced, many environmental parameters have shown improvement as pollution levels have decreased, energy use has dramatically reduced, and greenhouse gas emissions have fallen. China, the largest global emitter, has witnessed a drop in carbon emissions by 25% early this year; pollution in New York has reduced by close to 50% because of measures to contain the spread of the virus; and a nationwide lockdown in India—the country with the highest pollution levels in the world—resulted in a drop of PM2.5 (fine particulate pollutant) by 30% in some cities in just a few days. The current decrease in pollution is definitely good news, but it does not by any means imply that climate change is slowing down.

Tentative estimates, which project that COVID-19 could trigger the largest ever annual fall in carbon emissions point to the fact that this fall would not come close to bringing the 1.5°C global temperature limit within reach. Global carbon emissions would need to fall by more than 6% every year this decade, which is equivalent of more than 2,200MtCO<sub>2</sub> (metric tons of carbon dioxide) annually, to limit temperature increase to less than 1.5°C above pre-industrial

levels. Concentrations of carbon dioxide, the gas that is primarily responsible for trapping heat in Earth's atmosphere, are up from 413 parts per million this time last year to 416 parts per million now. The Scripps Institute of Oceanography has highlighted that fossil fuel use would have to decline by about 10% around the world, and that this would need to be sustained for a year to reflect clearly in carbon dioxide levels. Any visible, positive impacts of reduced energy consumption and greenhouse gas emissions will be temporary without a sharp shift in political focus to cleaner and greener solutions.

### **Emerging waste management issues**

If mishandled, the large volume of plastic and hazardous waste generated during the COVID-19 outbreak will jeopardize the environment and human health. The proper management of biomedical waste generated by hospitals and by self-care, such as medical packaging and contaminated masks, gloves, and used or expired medicines, is imperative. The COVID-19 pandemic can also lead to increase plastic packaging intensity, which could further complicate the management of waste. The safe handling and sustainable management of this waste is therefore a vital element of defining a new model for development.

### **Long-term vision needed**

Positive, sustainable environmental impacts demand long-term changes in production and consumption norms. These changes will be necessary in both rich and poor countries and will demand making radical shifts in political focus. The role of public opinion in compelling such a change will be key. As people become more aware of their dependence on the environment, governments must focus on effective science-policy interface or changes in policy, which is informed by science. A strengthening of international scientific partnerships and collective action is needed for all governments to deal with the challenge of redefining models of development to improve the lives of all species and Protect Our Planet. The current disruptions due to COVID-19 are likely pale in comparison to the upheavals in store, if governments do not act aggressively to limit warming to less than 1.5°C above pre-industrial levels and adopt cleaner and healthier models of development. As governments think about the world post COVID-19 and prepare for what comes next, they must closely examine how their actions to protect our planet can be part of the new world. It is clear, as the world grapples with many unknowns, the one thing that is known is that the health of the planet and those that inhabit it are inextricably linked.

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