

Two emergencies: climate change and Covid-19

Parallels and differences

It is arguable that, in many ways, the pandemic and the policy responses to it have delivered important lessons for dealing with the broader topic of sustainability.

Habitat destruction and an ever-increasing pressure on natural resources (especially food production) have clearly emerged as a breeding ground for pandemics (Chin et al. 2020). The assault on ecosystems that allowed the novel coronavirus to jump from animals to humans shows that sustainable use of Earth's resources and biodiversity protection have a key role in preventing similar diseases from emerging in the future.

The planet's resources are finite

The two crises bear some interesting similarities and also some crucial differences. Both the pandemic and the climate crisis are intimately connected to the exponential growth of demand suddenly imposed on resources: on the one hand, the resources available to national health systems (see Chapters 1 and 5 in this volume), and on the other, planetary resources. However, while the pandemic was partly managed by expanding the capacities of our national healthcare systems, the climate emergency cannot be addressed simply by throwing more resources at it, because, at a fundamental level, our planet's resources, unlike healthcare capacities, are finite and cannot be extended indefinitely. There is, as the saying goes, no Planet B to bail us out.

The temporal dimension of the causal links between human actions and either crisis is also crucially different. For instance, with the pandemic, the effects of individual and collective choices and behaviours tend to manifest themselves almost in real time: infections and fatalities can grow exponentially in a matter of days or weeks, shocking people and governments into action. This narrow timeframe (and also the potential for counter-measures to reverse dangerous trends in an equally short timeframe) pushes citizens to demand urgent solutions, and governments and regulators to provide immediate answers. Not so with climate change (and the loss of biodiversity), where cause and effect are more distant from each other in both time and space: a quasi-perfect manifestation of the 'boiling frog' syndrome. With climate change, collective and individual risk are also less self-evidently connected than in the case of the pandemic. Nevertheless, the strong and proactive response to the outbreak holds some lessons for addressing the slower-moving, but no less insidious, dangers of climate change.

The lockdown's impact on the environment

In the midst of this crisis, one could have been forgiven for thinking that the climate emergency could be set aside for a while. In fact, the early phases of the economic shutdown created a small window of 'climate optimism', when the air of our cities was breathable, the skies were once again blue, and pictures of Venice's unusually transparent waters seemed to present us with the possibility that a different, more eco-sustainable, future was within grasp.

The lockdown of cities, regions and even entire countries did indeed lead to a sudden drop in greenhouse gas emissions and a consequent unprecedented improvement in air quality, as documented in images by NASA (2020) and the European Space Agency (ESA) (Watts and Kommenda 2020). However, while this has certainly been a welcome, if unintended, consequence, it is clear that it lacks any structural character. Furthermore, there are not only opportunities but also risks that can arise from such radical carbon footprint-shrinking measures, and policy responses need to balance short-term actions with longer-term objectives.

On the positive side, even short-term air quality improvements in lockdown regions and a subsequent drop in global CO₂ emissions are undoubtedly an encouraging phenomenon. For example, the German think tank Agora Energiewende (2020) estimates that, due to the Covid-19 lockdown, German CO₂ emissions in 2020 could shrink by between 50 and 100 million tonnes. This means that Germany could reach an average emissions reduction of 42% in 2020 (when compared to 1990) instead of the earlier expected 37%, and thus meet its climate policy target. But could this lead to an unwarranted degree of optimism, or even to societal complacency?

The benefits will not last forever

This lockdown-induced optimism was in fact short-lived and, with hindsight, clearly misplaced. As economies began to reopen in the late summer months, our roads became progressively busier, factories and businesses started planning ahead, with a view to resuming their old production and distribution processes, and people's changing attitudes towards public transport – now viewed with suspicion as a possible locus of viral contagion – suggest that the days ahead may not necessarily be any greener.

The rebound effects of this 'back to business' reopening could reverse any positive environmental consequences and even make things worse in the longer term, just as we saw at the time of the 2009

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crisis. While global CO₂ emissions fell by 1.2% in 2009, due to a 0.1% drop of global GDP during the financial crisis, this was followed by a 5% rebound the following year (Peters et al. 2012).

At the same time, empirical evidence indicates that, despite the impact of the coronavirus crisis, a new global peak in atmospheric carbon dioxide levels was actually reached in May 2020. Measurements by the Mauna Loa observatory in the US showed that the concentration of CO₂ in the atmosphere reached 417.2 parts per million (ppm) in this month, 2.4ppm higher than the peak of 414.8ppm in 2019. Without the worldwide lockdowns, it might have risen by 2.8ppm. This means that the effects of the lockdown could only slow down the increase of global CO₂ concentration, but not stop or even mask it (Harvey 2020). And it is now clear that 2020 is also going to be the first or second hottest year on record, as global data of the first seven months of the year indicate (Scientific American 2020).

Policy responses to the pandemic do not offer a template for the climate crisis

The economic shock to people's livelihoods – with businesses, education systems and entire sectors of the economy shutting down, redundancies and restructuring taking place (see Chapters 2 and 6), travel restrictions being imposed, and disruptions to supply chains causing shortages of essential goods and services – demonstrates how damaging rapid responses can be. This is certainly not the way to deal with the climate crisis. The Covid-19 crisis should enter our history books as a stark reminder that it is best to avoid a situation in which, due to a lack of incremental action taken over a longer period, radical, almost-overnight measures become necessary to avoid a catastrophe.

The sudden stop of economic activities also has the negative side effect that it reinforces the 'growth versus environment' and 'jobs versus environment' dichotomies that sensible climate policymakers have been eager to leave behind in recent years. Any 'emergency brake' response almost inevitably triggers a reaction, from both decision-makers and large parts of the public, in which the priority becomes growth and jobs at any price.