

What if COVID-19 isn't the biggest threat?

This article is the English adaptation and extension of an article with the same subject, *Wat als COVID-19 niet de grootste bedreiging is?*, published online in *Samenleving en Politiek* (2020): <https://www.sampol.be/2020/04/wat-als-covid-19-niet-de-grootste-bedreiging-is>

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Exceeding the limits of the planetary carrying capacity is much more dangerous than COVID-19. Now or never is the moment to restore nature's breathing space and to invest in sustainable infrastructures. The European Green Deal presents a unique opportunity for doing so.



By exploiting nature beyond measure and destroying natural habitats, we open a box of pandora. For some time already, scientists have pointed to the link between the increased risk of pandemic outbreaks and the disruption or destruction of natural habitats, causing viruses to jump much easier from wild animals to humans.^{1,2} Hereby the mingling between 'us' and 'them' is a critical factor.

The problem of epidemics, however, is only one outcome of today's alarming level of ecosystem destruction. Critical loss of biodiversity and climate change are two other aspects of the same basic problem. The Swedish scientist Johan Rockström and his colleagues identified 'planetary boundaries', limits of the ecosystem's carrying capacity that must not be transgressed. In reality though, we do cross these boundaries on several fronts at the same time. Not only do we cause severe problems in terms of biodiversity loss, climate change and alterations in land use, but equally – and much less known – through the upheaval of biogeochemical nitrogen and phosphorus cycles.³ The loss of biodiversity is considered to be one of two most alarming problems, the other being the alteration of the nitrogen cycle. According to these scientists, this is thus

more severe than climate change, which in itself puts us on a pathway to self-destruction.

The loss of biodiversity is a critical problem

In order to safeguard biodiversity and natural capital, it is recommended to swiftly protect 30 to 50% of both global land areas and the seas.⁴ A cancelled UN conference on biodiversity was expected to help pushing initiatives in this direction. Will that succeed after COVID-19?

Stopping the present excesses of ecosystem destruction is even more urgent. The pressure on notorious environmental wreckers, like Brasil under the regime of Jair Bolsonaro, can be increased. Europe could do so by installing an economic embargo. Other critical regions are Central Africa and Southeast Asia, particularly Indonesia. Industries responsible for the systematic deforestation in these areas must be put to 'draining and drying'. By reverting to local, sustainable and closed cycles in Europe, we can substantially contribute to this goal. Adapting our own consumption choices and patterns is a first step into that direction.

Ecosystem pressures are exacerbated by the increasing world population as well. Fifty years ago, there were 3.7 billion people, now we are just under 8 billion. This implies that the sustainably available ecosystem services per person have more than halved since 1970. Or, in other words, our permitted ecological footprint must now be more than twice as small - and is bound to further decrease. Aiming for socially fair development and decent education for all in countries with the highest population growth can help to ease this pressure, because demographic evolution will reverse. This strategy can be closely related to the previous one about halting environmental destruction. Studies map in detail how such win-win scenarios can arise.⁵

Too much specialisation makes too vulnerable

The corona crisis has exposed the weaknesses of the globalised and hyper-specialised market system. Sustainability experts have long pointed to the need for shorter, more locally based production and consumption chains and higher built-in robustness. But apparently, a disaster is invariably needed to - hopefully - convince everyone of this need.

Flexibility and resilience to shocks (climate, food, epidemics) become, without a doubt, a new precondition of our modus operandi. This results from the fact that we are already in a regime of ecological overshoot, while the effects hereof only manifest themselves with a delay. It is therefore not inconceivable that, just as an army can summon reservists who do something different in their daily lives, we will gratefully use such flexibility for non-military purposes in the future. The first experiments in that sense have emerged: refugees and those temporarily unemployed helping farmers to harvest; the conversion of French TGV trains into mobile hospitals or Formula 1 teams building respirators. But also citizens who provide their neighbours with hot meals or who stitch self-made face masks at home. It is comforting to realise that we spontaneously adapt to the new circumstances and that unseen forms of solidarity pop up out of nowhere. But the regulations are not designed for this. It requires legal emergency plumbing to

make all of this – temporarily – possible, and the legitimacy of hastily taken decisions is at least questionable. Why don't we structurally build this common sense and adaptability into our systems? It is an illusion to think that COVID-19 remains a one-off misfortune. Now is the time to prepare for the next crisis and to avoid a new series of hasty measures implemented in a bazooka style.

Probably the beginning of much more

COVID-19 is not even the largest threat. The aforementioned transgression of the limits of the planetary carrying capacity is much more dangerous. However, COVID-19 is an immediate and sensible threat, while climate change or loss of biodiversity are slow and invisible processes. Humans are biologically programmed to pay more attention to an immediate threat close by than to a slow but greater danger far away. This was a good feature back in the days when we were hunter-gatherers, but now it is counterproductive. We slip into the boiling frog syndrome: a frog that is slowly cooked does not jump out of the pot until it is too late. If we are not able to transcend such primitive reflex behaviour and to act on a basis of rational risk management, we will pay an appallingly high price for the ignorance.

Climate experts and even banks⁶ have insisted for years that massive investments in climate change mitigation now will avoid a multiple figure of economic losses due to damage in the future. Even so, CO₂-emissions are not dropping fast enough – in the EU the trend is slowly downwards but, at the global scale, emissions continue to increase.⁷

We have also known for some time what is coming our way. The IPCC published a milestone report describing expected climate scenarios in 2007. For moderate climate zones in Northwestern Europe, this included more extreme weather events, more humid winters and drier, hotter summers.

As a case study for this context, we zoom in on Flanders, the highly urbanised northern Region of Belgium. The current drought as well as those of the past few years have thus been predicted more than a decade ago, with a high degree of certainty. With Flanders being a critical region in terms of water security, why haven't we built large water buffers during the past two decades? Today, some foresighted parties like the agricultural research centre Inagro⁸ or the provincial authority of Antwerp⁹ turn to action. But we could be much further along by now if sustainable spatial planning would have been an issue in Flanders at the time when all of this was known already.¹⁰

Similar reflections can be made for the food system. What if harvests fail more frequently? Or regarding the urban heat island, which we could have prevented much better by timely accelerating the greening of our cities. Ever-new heat records now bring us an urban hell in summer, while global warming has only started.

COVID-19 brings in another creeping danger. If the current crisis leads us to conclude that detached suburban housing and private car use are the best options to live and travel in a virus-safe way, then the remedy may kill the patient: more built-up areas and soil sealing, increased hydrological problems, less nature, more traffic congestion, higher energy consumption, increased emissions and a higher impact from resource and infrastructure use. By contrast, measures that make cities more sustainable and climate-

friendly in an intelligent way will at the same time increase the urban living quality and the city's resilience. If these qualities can be sufficiently assured, the pressure for making the opposite movement will fade. It is thus to be hoped that a short-sighted reflex will not jeopardise the much-needed efforts towards sustainable urban development and regeneration.

The European Green Deal as a unique opportunity

The response to the current crisis should have been a European one. Now we are witnessing an embarrassing spectacle of individual Member States trying to save their domestic situation in the best possible way. Such a scenario cannot be repeated. The conclusion must be that the need for European cooperation has become even more important.

The European Green Deal¹¹ should become the operational framework that structures the post-COVID response. This idea is also circulating at the highest European level. Vice-President of the European Commission, Frans Timmermans, and pioneer Bertrand Piccard, known from the Solar Impulse, write in an opinion piece: *'It is a false contradiction to say that the Green Deal is a luxury we cannot afford. (...) Doing more of the same as a rescue package cannot be the answer'*.¹²

The best environmental and climate legislation we currently have in Flanders and Belgium has come a long way thanks to the EU. Belgium is already systematically lagging behind with its environmental and climate objectives. What would it have been like without European legislation?

The keys to addressing today's major challenges lay, no doubt, at the European level. If Europe matters in the world, it is largely because we are (for the time being) at the forefront of tackling environmental and climate issues. By striving for an ambitious win-win situation in dealing with the current health crisis, we can turn an accident into something good and prove that we remain worthy of this leadership. Going fully for the Green Deal demands audacity and creativity but it can also give citizens and enterprises a renewed taste for the future. Contrary to some rather technocratic EU policies of the past, the Green Deal takes moreover a socially just transition as its starting point: *'Our responsibility is to make sure that this transition is a just transition, and that nobody is left behind as we deliver the European Green Deal.'*

One of the pillars of the Green Deal will be a *renovation wave*.¹³ Making the European built environment more sustainable depends to a limited extent on new construction and is mainly a matter of renovating and upgrading the existing building stock. Energy retrofitting not only reduces energy consumption and CO₂ emissions. Provided that the right approach is taken, a range of individual and societal co-benefits can be achieved at the same time. First and foremost, these are more comfort and a healthier indoor climate, less energy poverty, less absenteeism and higher productivity in working environments, a higher property value and greater futureproofing. Embedded in strategies of sustainable urban and spatial development, the wider co-benefits for society as a whole include reduced energy dependence, savings on social and health expenditures, less pollution, a safer and healthier living environment, more green local employment and less traffic congestion with the associated economic losses.

Renovation, by means of an individual or an urban project, can also entail more greenery, increased water buffering and better resilience. An example, which may be relevant in the light of the current crisis, is the renovation of a desolate residential tower from the 1960s in Paris. A new shell of terraces and winter gardens was draped around the building. Apart from all the other improvements, the new outdoor space or veranda for each apartment makes a lockdown a lot more bearable.¹⁴

New process designs and financing mechanisms such as *one-stop shops* make it possible to actually get the upscaled building retrofit efforts launched.¹⁵

The renovation wave also allows for a drastic increase in renewable energy production on and around buildings because renewable energy installations can be smartly incorporated into the retrofit package. The co-benefits mentioned above are thus further increased.

Additional benefits can be reaped from adopting a district- or city-scale approach, rather than working on a building-by-building basis. Urban regeneration can include rolling out sustainable district energy systems, inserting green-blue networks throughout the urban tissue or supporting the modal shift to sustainable transport modes by providing the appropriate infrastructures – taking space from the car and giving it to walking, biking and public transport. The current fear of using public transport for health reasons could be turned into an incentive to additionally promote (e-)biking and walking – and improving citizen's fitness in one move. Amongst others, local authorities in Brussels¹⁶, Milan¹⁷ and Paris¹⁸ have already grasped the opportunity and now speed up the realisation of their soft mobility plans.

A European climate law should set the Green Deal on track for all sectors: transport, energy, agriculture, buildings and industry - particularly steel, cement, ICT, textiles and chemistry.

But is there sufficient public support for all those measures? It seems like an eternity, but at the occasion of last year's local elections, 270,000 Belgians supported the *Sign for my Future* campaign for a sustainable and climate-neutral future. At the time, a report indicating the pathways Belgium can adopt to achieve this goal was submitted to the political world.¹⁹ The recommendations can straightforwardly serve as a local translation of the Green Deal principles. A new report by a group of academics looking at the post-COVID recovery also makes the same links.²⁰

Now is the time to invest in the sustainable infrastructures of the future. Provided these investments are well thought, they serve a triple purpose: recovery in the short term, increased robustness and sustainability in the long term.

Endnotes

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