SEI magazine

Sydney Environment Institute Magazine 2020 Confronting Crises

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David Schlosberg Director and Co-Founder

David Schlosberg is Professor of Environmental Politics in the Department of Government and International Relations at the University of Sydney, and Director of the Sydney Environment Institute. His work focuses on contemporary environmental and environmental justice movements, environment and everyday life, and climate adaptation planning and policy.

He is the author of *Defining Environmental Justice* (Oxford, 2007); co-author of Climate-Challenged Society (Oxford, 2013); and co-editor of both *The Oxford Handbook of Climate Change and Society* (Oxford 2011), and *The Oxford Handbook of Environmental Political Theory* (Oxford 2016). His latest book, *Sustainable Materialism: Environmental Movements and the Politics of Everyday Life*, was published by Oxford.

David Schlosberg is one of the Research Leads on Climate Justice and Problems of Scale, Creating Just Food and Energy Policy, Environmental Disasters and Just Governance, Building an Understanding of Best Practice Local Food Interventions, Community Engagement in Food Governance and Evaluating FoodLab Sydney.

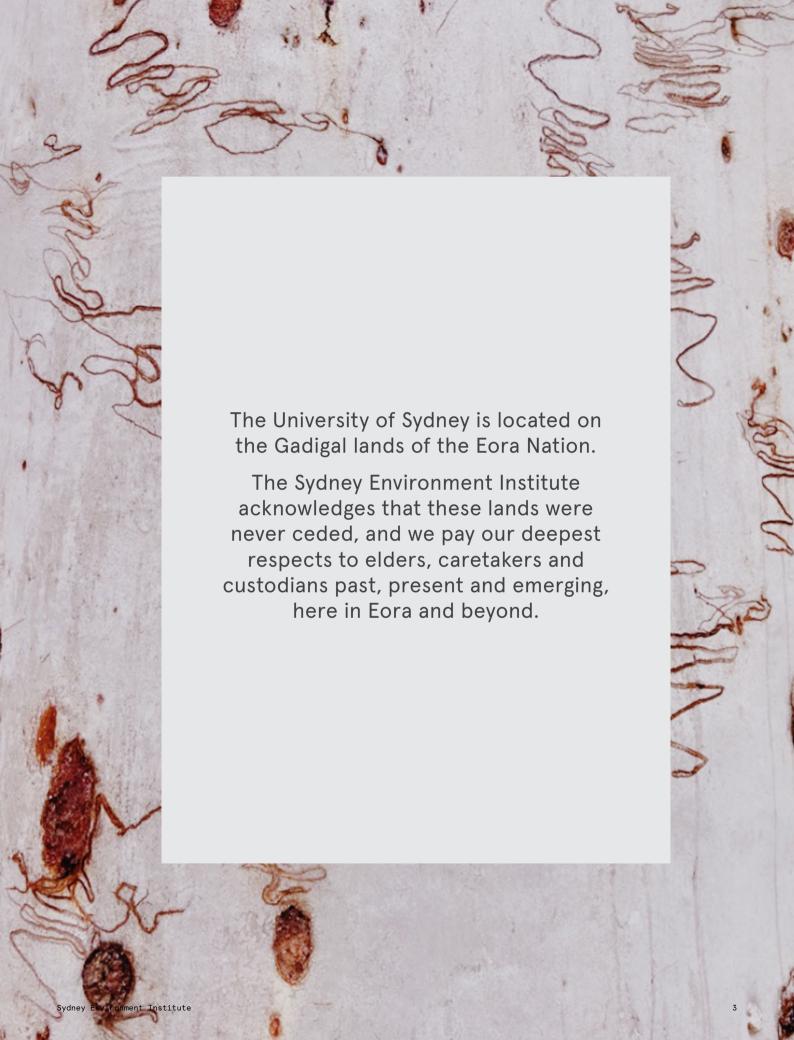


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Michelle has been a practising multidisciplinary theatrical artist for over twenty years. She is the co-founder and artistic director of The Living Room Theatre where she has created, directed, and performed in 26 original works that have found homes in flagship venues like Sydney Opera House, Carriageworks, and Pier 2/3, as well as non-theatrical spaces. Michelle's work is centred upon themes of violence, complicity and women's bodies. Her stories are meted out through the elongation of time, using object & light; film & movement; body, sound and space. She currently leads the multidisciplinary project, 'Sites of Violence', which merges artistic and academic understandings of human and non-human experiences of violence, and the processes, emotions, and meaning that this violence makes manifest.

Michelle St Anne is the Research Lead on Sites of Violence.



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https://sei.sydney.edu.au/publications/issue-5-confronting-crises/



Confronting Crises: Introducing the Corona and Climate Series

Over the past twelve months, we have curated a series of opinion pieces from the Institute's community that explore the intersections between ecological and epidemiological crises and the fight for a different future.

Liberty Lawson, Content Editor, Sydney Environment Institute

09 April 2020

Published 09 April 2020

It's hard to believe that it was only three months ago that we returned to the SEI office after the Christmas break and the horrors of New Year's Eve.

The windows had been shut tight against the smoke that hung thick over Sydney, as we sat, lost for words, publishing a news post that didn't welcome or celebrate the new year, that instead mourned a profound loss.

And today, working from our living rooms, our grieving has been interrupted. The images of the <u>blood red skies above Mallacoota</u> residents take on a new significance – it's their N95 masks that are most noticeable now.

Those of us who braved the ashen skies in November, December and January to buy face masks, unsure of what the future would hold, certainly could never have predicted that these masks would not only be sold out statewide, but globally, in just a few short weeks.

When we complained about the thick smoke that <u>prevented us from going outside</u>, sometimes for days at a time, we never could have imagined that we could soon be confined to our homes, by law, for weeks or more.

And now, here we are. It feels like we barely had a second to revel in the luxury of fresh air and to catch our breath before holding it once more, sheltering from another amorphous, unprecedented threat carried in the air, even though the skies are finally blue.

But as our Director David Schlosberg recently pointed out – it isn't as though we didn't see this coming. Like with climate change, and the east-coast bushfires, the threat of a global pandemic has been predicted by epidemiologists for decades. We chose not to listen, not to prepare.

These crises disproportionately affect those who are already most vulnerable. Health impacts aside, just this week data shows that the NSW Police Force has been out in droves fining people in Sydney's southwest for violating social distancing laws, despite the majority of violations, and cases, arising in the more affluent eastern suburbs. The so-called 'essential workers' who are now risking their safety on our front-lines, as cashiers, delivery drivers and sanitation workers are mostly doing so on the minimum

wage. We are seeing a weaponisation of the divide between individuals, <u>nations</u> and <u>species</u> for political gain. But we are also seeing remarkable acts of compassion, generosity, unity and resilience.

Now, more than ever, the promise we made in January, that 2020 would be a year of continued action and lasting change, still rings true.

Corona and Climate Series

The global upheaval we have witnessed in a few short weeks is absolutely unprecedented. The climate crisis and the COVID-19 pandemic run many tragic parallels, but the scale and swiftness of the coronavirus's spread means that change is happening right now, in every corner of the world, offering a unique opportunity for renewed action, critical analysis and a chance to revolutionise systemic structures of inequality, division and injustice.

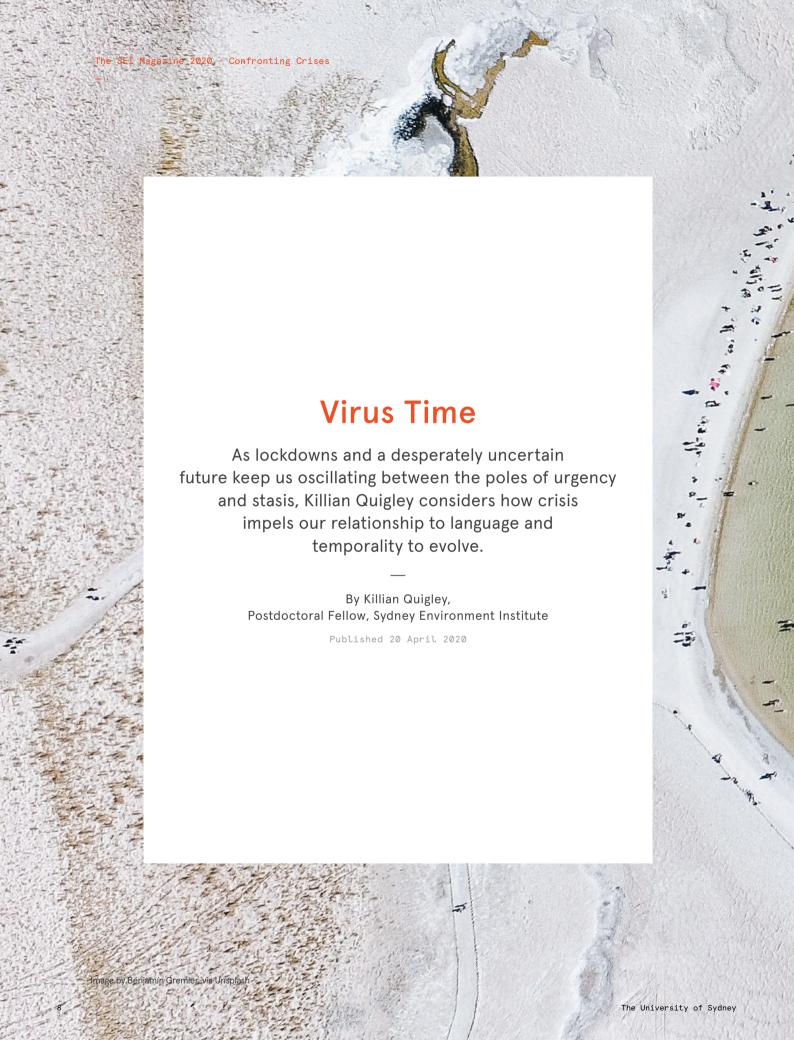
The Corona and Climate article series, authored throughout 2020 by a diverse range of our internationally recognised scholars, focusses on questions of resilience, adaptation and justice in the face of global crisis.

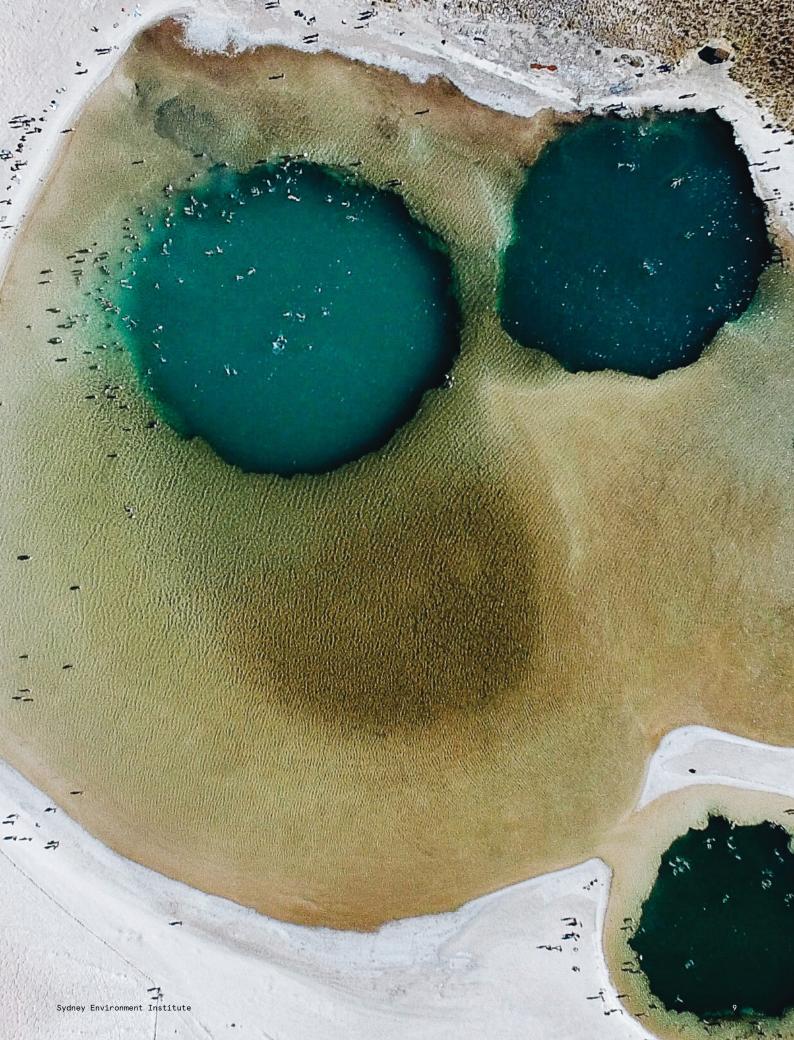
With the depth of multi-disciplinary expertise carried by our extensive network of researchers and the lived experiences of our local communities, we hope to shed light on the impact of the COVID-19 pandemic locally and internationally while critically analysing the intersections with the escalating climate crisis.

The series, collected here as the 2020 issue of the SEI magazine, explores the consequences of crises for finance and industry, welfare, multispecies justice, environmental policy, immigration, institutionalised racism, public infrastructure and urban design, mental health and more.

The world will not, and should not, return to normal. By diving into the uncomfortable questions and opening new doors for unlikely collaborations, above all we hope to open up a space where we can come together to imagine and fight for a better future.

This series is produced by SEI Deputy Director, Michelle St Anne, and edited by Liberty Lawson and Genevieve Wright.





Published 20 April 2020 Along the paths of the pandemic, life-worlds have undergone-and are undergoingdramatic, diverse, unequal, and asynchronous change. Language furnishes some vivid examples. Earlier this month, Bernadette Paton, Executive Editor of the Oxford English Dictionary, described the ways COVID-19 has created and repurposed a vocabulary of its own. Learning the histories of terms like "selfisolating"—an epithet, originally, for *nations* practising political and economic isolationism has me asking how my lexical practices have been shifting. Furthermore, I'm wondering what their shifting has been doing to my sense of self, my relationship to work, my experience of community, and my ability to imagine what lies ahead.

When we talk about the coronavirus, we talk about time-about how long it's been since we saw a good friend, perhaps, or for how many weeks we've been attempting to simultaneously home-school children and "work from home". Official discourses talk time too, such as when they forecast the moment the disease is due to "peak" in a particular spot, or when they speculate about reductions and extensions in social distancing restrictions. And just as it matters how I describe and understand how I'm doing in the context of this crisis, it matters how public speechespecially the authoritative kind-selects and conveys the words, images, and narratives that frame conversation, and even frame thought.

Take, for example, "pause," "hibernation," and "cryogenic suspension," three very different metaphors all in pursuit of something like the same goal. Their respective utterers-Governor Andrew Cuomo of New York. Spanish Prime Minister Pedro Sánchez, and Australian Treasurer Josh Frydenberg-have chosen bits of language that (are supposed to) render policy response, and the pandemic writ large, comprehensible for their constituencies and broader audiences. More specifically, these metaphors express faith in the state's ability to fix the boundaries of the emergency in time. So doing, they seek to produce that faith in the persons who hear and read them, and who may go on to incorporate them, consciously or otherwise, into their own sense of what is going on.

These are basic functions, and they're critical ones: as the linguist Wolfgang Klein has written, in order for "well-coordinated collective action"-such as the operations of human society-to take place, it's necessary that the members of a community have reliable practices of sharing and co-creating "temporal information" when they communicate with one another.1 In the present instance, the better and worse functioning of such practices have enabled individuals and societies to inhabit the period of the pandemic more and less effectively. Just yesterday, my friend and I video-chatted about what we were looking forward to doing, and where we were looking forward to going, after the pandemic. By writing our stories into the future, past the time of the virus, we enjoyed an interval of welcome emotional and psychological relief.

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"The pandemic's impact on industrial activity has afforded earth's atmosphere a short-term diminishment in air pollution. But global warming is not quarantining, and neither are the political, economic, and cultural structures that bear outsized responsibility for it."

Killian Quigley

Still, more needs knowing about the temporal metaphorics of this pandemic, particularly as they issue from administrative and political discourses. The words I mentioned earlier do more than characterise life under the coronavirus and seize its past, present, and future bounds. They imply a capacity to put time itself on some kind of hold—or to momentarily dislocate whole societies from one mode of temporality to another. And they suggest that something like normal time exists; that we are now taking an enforced (but elegantly managed) time out; and that normal time will recommence at an interval of authority's organising, if not exactly choosing.

What relationships-to the past, the present, and the future-does this framing encourage or enable? What relationships does it obscure or disallow? "Pause," "hibernation," and "cryogenic suspension," and metaphors like them, describe states of atemporality, of being removed from time, or of time having been arrested in its flow. But of course we know that while certain times are instructed to play dead, other times surge on in the progressive tense: in the United States, the Trump administration is crippling fuelefficiency standards for automobiles. Off the coast of Queensland, the Great Barrier Reef is bleaching along the entirety of its length. Yes, the pandemic's impact on industrial activity has afforded earth's atmosphere a short-term diminishment in air pollution. But global warming is not quarantining, and neither are the political, economic, and cultural structures that bear outsized responsibility for it.

For that matter, to what sort of-and to whose-normality is life directed to return? As the futurology² of coronavirus response weaves tales of a resurgent status quo, it is incumbent upon us all to contemplate what persons, communities, and systems would be well-served by such resumption, and which would be "going back" to suffering as bad, or worse, than "before." In a recent article on temporality, embodiment, and racialisation, Helen Ngo makes the pertinent argument that different bodies are afforded different abilities to orient themselves in mainstream time-and that "white embodiment is not only futurally oriented, but also free to take up the present and past as it wishes, and in the manner of its own choosing".3 Thinking with Ngo's work, I want to know what oppressive legacies are inscribed within the temporal metaphorics of the coronavirus, and of other official futurologies besides.

This is not a pause. There will be no "going back". So writes Arundhati Roy, for whom the pandemic is an historical "rupture," not a temporary break from business as usual. It is, moreover, "a portal, a gateway between one world and the next". To say as much is to acknowledge that together, we share the strange fact of being with the virus in our places and times, footings that might afford unanticipated poetic and political horizons. Taking rigorous heed of language heard, made, and shared is part of the ongoingness of ethical care within the several emergencies that unevenly house us. This has been true, will be, and is now.

Killian Quigley is a postdoctoral researcher at the Sydney Environment Institute. He is co-editor of *The Aesthetics of the Undersea*, author of articles on plastic, marine pastoral, and other subjects, and was researcher in residence, recently, with Works on Water/Underwater New York

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- I borrow the term from Catherine Brace and Hilary Geoghegan, "Human geographies of climate change: Landscape, temporality, and lay knowledges," Progress in Human Geography 35.3 (2010), p. 292.
- 3. Helen Ngo, "'Get Over It?' Racialised Temporalities and Bodily Orientations in Time," Journal of Intercultural Studies 40.2 (2019), p. 247.



COVID-19 Kills, but Inequality Does Too

Rebecca Lawrence and Alison Ziller compare the laissez faire COVID-19 management of the Swedish Government with Australia's approach to explain why decades of systemic inequality will catch up with us regardless of how well we police this pandemic.

By Dr. Rebecca Lawrence, Senior Research Fellow, and Dr. Alison Ziller, Research Affiliate, Sydney Environment Institute

Published 22 April 2020



Published 22 April 2020

Sweden is seen as an <u>outlier</u> when it comes to its COVID-19 response. It's not shutting bars, restaurants, and work-places, nor placing any stringent communist-style restrictions on gatherings to 2 people (unlike Australia). Their relatively lax approach simply stipulates a maximum 50-person limit for any gatherings. How, then, does Sweden plan to manage COVID-19? One obvious way, and one that has already been <u>reported</u> here in Australia, is by relying on the "social obedience" of the Swedes. Swedes are used to respectfully following social norms and rules, and when Governments come with advice (in this case, about social distancing) they generally listen.

Having said that, Sweden has already experienced around 1500 COVID-19 related deaths, over 50 times more per capita than Australia. Clearly, if they are letting so many more die from COVID-19, the Swedes are calculating a different kind of cost-benefit analysis than we are, so they are betting on something more than just "social obedience".

The cost-benefit analysis in Australia goes something like this: we need to save as many people from COVID-19 as possible, full stop. We are prepared to go to any lengths to do so. Many will become unemployed, and we will prop them up with a (small) increase in unemployment benefits. Politicians won't openly admit this next bit of the equation, but here it is: those who are at the bottom of the social ladder will likely fall even lower, because we're not prepared to fundamentally redistribute wealth in our society (marginal increases in welfare just don't cut it, and prioritising "business, not government" as a way out of this economic crisis is highly likely to further exacerbate existing social inequalities).

"Politicians won't openly admit [that] we're not prepared to fundamentally redistribute wealth in our society, [so] while we choose to save some people who might have otherwise died from COVID-19, we will essentially kill others".

What this means is that while we choose to save some people who might have otherwise died from COVID-19, we will essentially kill others, or at least considerably shorten their lives. This is because any increase in social inequalities will have adverse outcomes for peoples' life expectancies, that is, public health. As epidemiologists Richard Wilkinson and Kate Pickett have shown in their seminal book "The Spirit Level", the greater the relative inequality in a society, the more likely we are to die younger. That is particularly so for the people at the bottom of the social ladder, but true even for those at the top. No-one benefits from increased social inequalities, but least of all those who are already poor. While we may be saving lives right now from COVID-19, the actual social and public health impacts of lock-downs will not be known for decades.

Some impacts will, of course, be more immediate: increases in domestic violence and increased alcohol consumption; social isolation and negative mental health impacts; all of which have received limited media attention in Australia. Some of these impacts have been half-heartedly acknowledged by the Australian Government, with band-aid funding to domestic violence organisations and limits on alcohol purchases, neither of which constitutes a serious or adequate response to the real social issues. What is noticeably entirely absent from the Australian Government's current cost-benefit analysis is the long-term cost to human lives because of increased social inequalities.

Alison Ziller is a lecturer on social impact assessment in the Department of Geography and Planning at Macquarie University. Alison is also a consultant social planner specialising in social impact assessment (SIA).

Rebecca Lawrence is a Senior Research Fellow at the Sydney Environment Institute. Rebecca joins the institute in 2020 after her time at the Department of Political Science, Stockholm University as Research Fellow. She is Chief Investigator for a major research project funded by the Swedish Research Council for Sustainable Development on the impacts of mining on local and Indigenous communities in Sweden, Norway, Finland and Australia. Rebecca is also funded by the Norwegian Research Council for a project concerned with the integration of Indigenous knowledge systems into environmental decision making.

"Politicians won't openly admit [that] we're not prepared to fundamentally redistribute wealth in our society, [so] while we choose to save some people who might have otherwise died from COVID-19, we will essentially kill others."

Dr. Rebecca Lawrence and Dr. Alison Ziller

Sweden, on the other hand, has a fundamentally different starting point. It benefits from far fewer social inequalities than Australia: the gap between the "haves" and the "have-nots" is much less in Sweden than it is in Australia. Research shows countries like Sweden that are more equal benefit from higher levels of social trust, more trust in governments, and less fear in general. Australian society, conversely, has less trust in governments, less social trust and is more fearful.

Trust is an expression of mutuality, sometimes expressed as mutual reciprocity, which is at the heart of social wellbeing. It involves care for others and a sense of responsibility to the rest of society. Trust, mutual reciprocity and relative equality all reinforce the other. When you have a good level of trust and relative equality, as in Sweden, the country maintains its social infrastructure in every sense of that term. It maintains its social safety net, health services, access to support and learning, laws and governance in the interest of public health.

So, it's not just that Swedes are used to listening to and following advice in the interests of the common good, it is also that Sweden has a social infrastructure in place on which a robust response to COVID-19 can rely. Australia, on the other hand, has eroded its social and health systems. It is now trying to rely on individual behaviour that is not backed up with either a well-resourced health and welfare service or a common understanding and agreement about the importance of mutual reciprocity in a crisis. Which country is more likely to take a measured and sustainable approach to the management of COVID-19?

There has been a lively debate in Sweden as to whether a full lock-down is socially sustainable. Senior civil servants, politicians and public commentators have referred to the risk of "social unrest" under a lock-down, as well as adverse mental health impacts,

increased child poverty and domestic violence. Add to this the fact that the unemployed in Sweden receive much higher benefits than those in Australia, so those who are made redundant in Sweden due to a COVID-19 driven economic downturn, are less likely to fall into poverty. In short, Sweden has so far chosen a moderate approach to managing COVID-19; one that is much more likely to be socially sustainable in the longrun, and one that is much likely to do less damage to existing social inequalities. So, while more people per capita may die in Sweden due to COVID-19 than in Australia, we'll end up proportionately losing many more lives to inequality than Sweden ever will to COVID-19.

A note from the authors (December 2019): This article was originally published in April of 2020 and much has happened since. In December 2020, total COVID-19 death rate per million people in Sweden stood at 716 which compares with 67 in Norway, 162 in Denmark, 76 in Finland (and 40 in Australia). COVID fatalities in Sweden have hit vulnerable, marginalised and immigrant populations hardest, something that has also played out in other countries. These data show that Sweden is not impervious to social inequalities, and that these inequalities have public health consequences for those most vulnerable. The data also suggest another reality - that relative equality is a good long term public health strategy but is less suitable as a rapid response tool in an emergency. Nonetheless our overall argument remains relevant: relative social equality in Sweden is much better than in most other industrialised nations. As a significant long term public health strategy, its impact on the virus in the longer term will need to be appraised

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The Pandemic Has Changed Everything and Nothing

As the ash has settled and a nation bunkers down, Greenpeace Australia Pacific CEO David Ritter reflects on the shift in social conscience and the growing challenge to political corruption and inaction.

> By David Ritter, Chief Executive Officer of Greenpeace Australia Pacific

> > Published 15 May 2020

Standing quietly one morning under the mature Queensland brush box tree (Lophostemon confertus) that grows, wildly out of scale, in the back corner of our tiny inner city courtyard, I'm joined from nowhere by a <u>pied currawong</u> (Strepera graculina) who looks at me, steadfastly, from its target-like eye.

With oafish anthropomorphism, I say good morning to the bird. The pied currawong continues to stare studiously, moving only slightly, assessing, I suppose, whether this loud and brightly clad biped represents an immediate threat, or perhaps a source of food.

It is just another uncanny midweek morning in inner western Sydney suburbia, in a year that already feels a decade old. We live under an air route that is now empty of planes, the flight path becoming quickly grown over with clean sky. And like countless others around Australia under pandemic lockdown, I'm working from home today.

I feel a surge of gratitude for privilege and I want to share my appreciation of good fortune with the currawong but do so only silently. I'm grateful to be in employment, I now think in silent secular prayer, and I am thankful for the closeness of wife and daughters whom I not only love but deeply enjoy being with; for friends and neighbours and a society that is holding up; for utilities that work, for food and drink that is healthy and available; and for peace.

So much has been revealed this year.
More than seventeen million hectares
of green was turned to black: that's
an area greater than the Netherlands,
Belgium, Denmark, Switzerland and
Slovenia combined, or more than five
times the size of Taiwan, or more than
16 times the size of Lebanon. In North
Queensland, the third great bleaching

of our Great Barrier Reef was the most extensive yet, erasing the brilliant colours of the coral into a dull white. On land and sea, so much colour and life are gone, killed by conditions of planetary heating, created by people primarily by burning coal, oil and gas and through cutting down trees. The chickens of climate inaction had come home to a foul and bitter roost.

In Australia, we have all of the resources, policy solutions and technology fixes that we need to make the rapid shift to the safety and security of abundant clean energy. It is a move that would also be immensely popular, as a very large majority of adult Australians want effective action to reduce greenhouse gas emissions. And one can only presume the margin would be even greater among the kids who will inherit the mess.

What has held Australia back is a malign complex of vested interests; the fossil fuel order, 'game of mates', united in the exercise of dirty power, twisting our democracy away from the common good.

Politicians may crave the sugary rewards of short-term political advantage but the distant eternal eye of the laws of physics and chemistry stare straight through the venal sophistry of petty humanity. The only choice remaining to the death cult defenders of the fossil fuel industries is to deny truth itself, an option that many have taken like their Qantas chairman's lounge admission depends on it.

So, this spring and summer, even as the fires raged and the seas heated, there was a <u>sustained effort by powerful forces</u> to minimise the role played by climate change in creating the conditions for the disaster. It was the fossil fuel

order's response to their <u>Chernobyl</u> <u>moment</u>. Disinformation was politically weaponised by certain politicians, amplified by a gallery of pundits and systematically disseminated via social media, to spread falsehoods and shift culpability away from the coal, oil and gas industries. The regime was shaken but held for now.

Meanwhile, in umpteen stricken country towns, flaming valleys and daydark backroads, and around the kitchen tables in the cities, we Australians remembered ourselves. That we are a society of people, held together by common bonds of land and sea, road and sky, kinship and friendship, communality, interdependence and fate.

In the era of neoliberalism, we have been force-fed the slow poisonous untruth that people are selfish selfmaximisers, aspiring homo economicus, worth no more than our use-value and our contribution to the gross domestic product, and only as good as our own efforts in self-marketing, owing nothing to anyone, unless by dint of binding contract or as part of a communications strategy. It was never true, and the fires burned away those lies for any who were looking. Volunteer firefighters turned out with no thought of reward; professional first responders were on the frontlines of danger out of vocation; people cared for one another and for animals too, rescuing, hugging, sharing, baking, witnessing, taking in and giving comfort. The piggy banks of Australia were put to the hammer as we searched our souls and found charity.

The skies went brown and grey in the cities for days on end. Melbourne, Sydney and Canberra all took a turn at being the most polluted city on earth, as the ultra-toxic smoke choked us, "In the era of neoliberalism, we have been force-fed the poisonous untruth that people are selfish. The fires burned away those lies - volunteer firefighters turned out with no thought of reward, people cared for one another and for animals, rescuing, hugging, sharing, baking, witnessing, taking in and giving comfort."

David Ritter

contributing to the deaths of more than 400 people. Then the rains came and the last of the fires was put out. And then, just a few weeks later COVID-19 arrived, bringing our cities to a screeching halt. We looked up and long-hidden stars reemerged, and from their immeasurable distance across the void, asked twinkling questions of where next for the human race. All life on earth is now watching, with the acute orb of a currawong. What will we do?

Every rational-minded observer asks the obvious question. Why won't Australia respond to the climate emergency, the same way we have reacted to the COVID-19 crisis? The Morrison Government listened to the scientific and medical experts and acted prudently, in the common good, to halt the pandemic. Can we just have the same again for the climate emergency, please?

The answer is a tantalising maybe. First, the inertia. The science writer Ketan Joshi has observed that while it may feel as if the Pandemic has changed everything, the brute facts of institutional corruption remain unaltered: "The first point is that the same people are in power, and they exist within the same power structures. ... There has been no alteration to the bonds of kinship that form a glistening web between fossil fuel executives, industry lobby groups, conservative journalists and politicians in major parties. These people are still in each other's phone books. The second reason is that there is a pre-existing, bespoke rhetorical assumption Australia's fossil fuel industry can easily slip into. ... the largely-unquestioned mythology of economic prowess."

And so it is that oil-and-gas-man Nev Power is handpicked by the prime minister to lead the National COVID-19 Coordination Commission, his appointment threatening to the cruel hopes of a new clean energy beginning. The same people. The same power structures.

Yet there is also an unruly momentum that is building because of what we have collectively lived through. The recent visceral mass shared experience of Australians is now that of extreme climate damage – with almost 80% of us impacted by the fires – the importance of our social bonds were revealed in extremis, so too was the generative ability of government when the public good was made paramount. We know what we must avoid; we have seen afresh what is possible; we know what must be done.

So, the contest is on. The abiding metastasis of lies and vested interests that hold the nation to tortured ransom versus the democratic spirit, and the twinned beauty of sober truth and abiding hope; charged with the renewed energy of our shared recent history and driven always by the open possibilities of the deep future.

David Ritter is the Chief Executive Officer of Greenpeace Australia Pacific. Prior to joining Greenpeace, David worked as an academic and a lawyer in both commercial and native title practices, and is a widely published commentator on politics, law, history and current affairs. David is an Honorary Associate of the Sydney Environment Institute.

"Why won't Australia respond to the climate emergency the same way we have reacted to the COVID-19 crisis?"

David Ritter

Governing Global Health Versus Climate Health

Following on from last week's World Health Assembly, Charlotte Owens considers the role of politically convenient science in comparing the unprecedented international response to COVID-19 with decades of haphazard and stagnating climate crisis governance.

> By Charlotte Owens, Master of International Security, The University of Sydney

> > Published 26 May 2020

Published 04 June 2020

Few global phenomena elicit as much fear as pandemics or environmental breakdown. And yet, while we have been grappling with how to stop, change, ignore, mitigate against, and adapt to climate change for decades (through haphazard, politicised governance that has eroded public trust in institutions), the past months have revealed that for governments, dealing with a pandemic is much more appealing than tackling a slow-burn issue like the climate crisis. Last week's 73rd World Health Assembly has reinforced this growing sentiment in policymaking circles.

Responses to the COVID-19 pandemic have, at a governance level, been exceedingly rapid, especially in comparison to how governments and international organisations respond to climate change. This illuminates the underlying and blunt truth that human health trumps climate change. Of course, the irony is that climate change does and is affecting human health.

The pandemic has generated a greater mobilisation of political will across the board, in both local and global contexts, and has successfully dominated the news cycle for the majority of 2020. Australians have become accustomed to listening to our Chief Medical Officer and receiving targeted announcements on social media advising against coronavirus disinformation. And yet, hardly the same can be said for the government's response to climate change. It was even deemed the wrong time to talk about climate change during Australia's catastrophic bushfires of the summer of 2019 - 2020. The interesting and troubling dynamic of believing science when it's convenient and suits the political values of a system has become increasingly apparent; the scientific profession is respected during a pandemic, but not a climate crisis.

Alongside a suite of multilateral initiatives after World War II, the World Health Organisation (WHO) was established in 1948 to create a system of global health governance. The ambition of the organisation, as per its constitution, is to strive for "the enjoyment of the highest attainable standard of health" as a fundamental human right. Much of the WHO's substantive role in the prevention of non-communicable diseases is ignored, as responses to disease outbreaks of epidemic and pandemic proportions are significantly more attractive, alluring, and most importantly frightening.

As per its mandate, the WHO responded promptly to China's alert of a new infectious disease outbreak in Wuhan on December 31, 2019. The WHO has appropriately been at the centre of managing the communications and technical expertise of the pandemic, however, due to the revered principle of non-interference in domestic affairs, the implementation of its health recommendations is the responsibility of member states. It is worthwhile to note that international organisations, such as the WHO, function on the premise of member states agreeing to dilute their sovereignty in the interests of the international community. Although the organisation has become the latest arena of geopolitical tension, the member states were largely able to refrain from politicising health governance during the recent World Health Assembly.



"It will certainly be interesting to see whether the UNFCCC is capable of taking a leaf out of the WHO framework— if it does, it will be a key turning point for climate policy and the health of the planet."

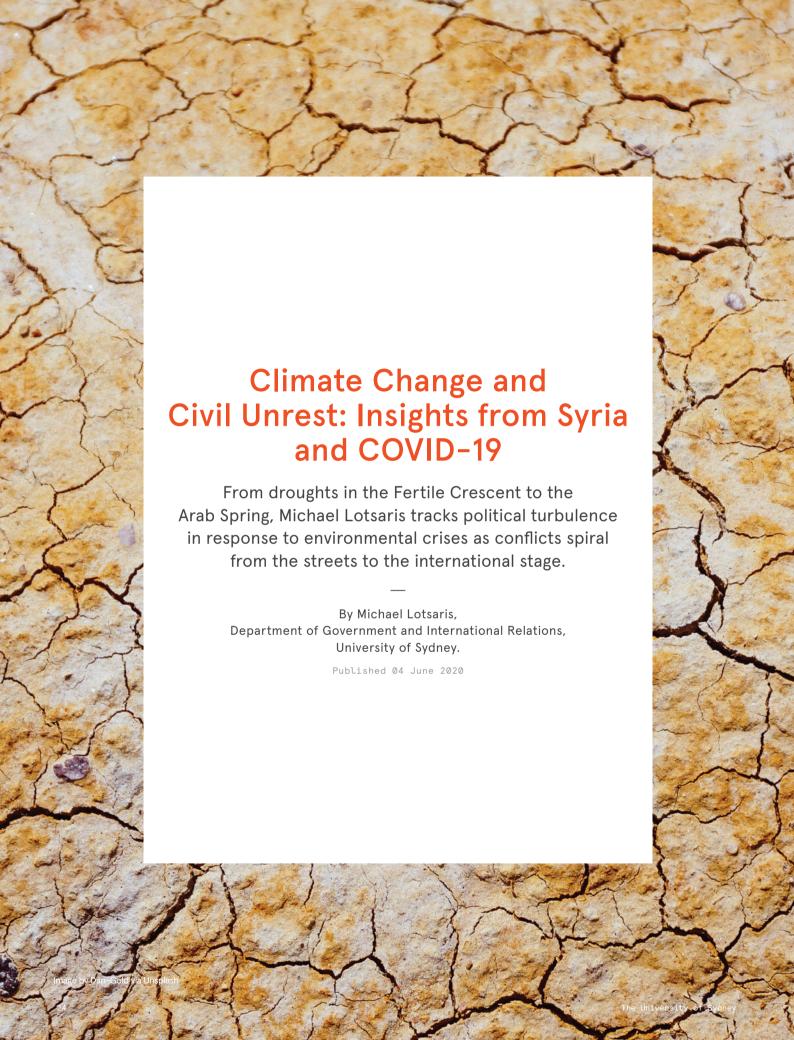
Charlotte Owens

Earlier last week, the World Health Assembly formally adopted a resolution to review the origins of the virus and in turn the WHO's management of the health crisis. The steps that were taken to achieve this outcome highlight a decision-making process foreign to the climate change sphere. This European Union - Australia motion was passed by 137 countries, including China, showcasing an unparalleled eagerness to hold governments and institutions accountable. What was initially perceived as governments scapegoating an international organisation to distract from domestic system failures has since shifted to a pragmatic approach to uncover the origins and international response to COVID-19. The reality is that member states of the WHO have acted in a fashion, in terms of speed and unanimity, that is vastly different to years of stagnant climate negotiations. It's plausible that the immediate economic downturn experienced across the globe has influenced such behaviour, yet it has been well-documented that a similar situation will occur if industries fail to transition to a green economy.

In light of this, calls have been made for governments and global institutions focused on climate change, such as the United Nations Framework Convention on Climate Change (UNFCCC), to mirror any future response on the pandemic model. This presents an interesting scenario as the WHO is often criticised for seemingly overreactive responses to health crises, such as in the H1N1 pandemic, when in fact these preventative measures are necessary in order to curb the depth and severity of the health crisis. The very nature of pandemic management is based upon such preventive principles that, when extracted and applied to climate governance, would be undoubtedly criticised as draconian and an assault on the sacred sovereignty of states. It will certainly be interesting to see whether the UNFCCC is capable of taking a leaf out of the WHO framework- if it does, it will be a key turning point for climate policy and the health of the planet.

The global governance of health versus climate couldn't be more dissimilar. The rapid, bipartisan response to the pandemic in Australia occurred at a rate that is at complete odds with current climate policy. despite the latter having decades more warning and impacts that are potentially exponentially more significant for human health, the economy, and beyond. It remains to be seen whether the resolution adopted at the World Health Assembly will maintain its momentum and remain on the international agenda. Considering the extent to which the pandemic has penetrated all aspects of modern life, it seems plausible to conclude that it will. Perhaps a crisis needs to be new and unfamiliar, as the coronavirus is, in order to gain, and more crucially, maintain the attention of governments.

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The industrialised advancement of technology has both reduced the distance of communications between people from across the world, and expanded their global footprint more than ever before. This simultaneous and interrelated process of global interconnectedness and omnipotence has enabled the ramifications of localised events to spiral onto the international stage. Therefore, there is much to be learnt from the parallels between the conflicts in Syria, the COVID-19 pandemic, and anthropogenic (i.e. human-induced) climate change in contributing to civil unrest across the world.¹

The outbreak of the Syrian Civil War in 2011 was arguably the most politically significant phenomenon of the decade. It produced one of the largest refugee crises in modern history, and enabled the growth of non-state militant groups. These two particular ramifications presumably augmented the globalised spread of peoples' anxieties with regard to territorial integrity and public safety, in the aftermath of the economically disruptive Global Financial Crisis, thereby culminating in increased political scepticism towards the competency of their authorities. This most likely facilitated the rise of political extremism, populist electoral shifts, and new threats to public safety.

These developments seem like an unbelievably tremendous ripple-effect from the instability of one particular country as a consequence of its particular domestic political issues. However, some researchers have suggested that the Syrian Civil War can be attributed to the greater global phenomenon of anthropogenic climate change.² Syria was subjected to its most severe drought on record between 2006 and 2009, resulting in the collapse of agricultural livelihoods.³ It has been reasoned that this environmental shock to the rural economy induced thousands to move towards more urbanised regions for new homes and

employment.⁴ This influx of migration is inferred to have worsened the availability of resources and social services.⁵ Amidst the growing fervour of the Arab Spring movement, which appeared to resolve such issues in Tunisia, organised protests began to condemn the Syrian government for its purported political mismanagement of such grievances, which ultimately spiralled into full-scale armed conflicts.⁶

Although the significance of climate change as a factor that elevated the likelihood of civil unrest, let alone conflict, in Syria has technically been inconclusive in the academic literature, there is evidently an intuitive prospect that climate change, as an increasingly disruptive global phenomenon, risks multiplying existing threats to the stability and security of societies.⁷ Even nation-states regarded as relatively more politically stable could face increased risks to the security of their people. Lives and livelihoods in Australia are not only directly vulnerable to climate change but can also be impacted indirectly through the international ripple-effect of climate-related social disruption within foreign countries such as Syria.

Assuming the phenomenon of climate change would progress as an increasingly disruptive global crisis, then its political ramifications may unfold with similarities to the political fallout of the COVID-19 pandemic. The first recorded death is considered to have occurred on 9 January 2020. Two months later, this infectious disease had claimed over 4,000 lives globally. Two months further into May and this figure has surpassed 300,000 deaths worldwide. The exponential spread of COVID-19 generated extraordinary emergency measures in the name of public safety among world governments, severe disruption to commerce and employment,

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"Climate change, as an increasingly disruptive global phenomenon, risks multiplying existing threats to the stability and security of societies."

Michael Lotsaris

and the <u>aggravation of information warfare</u> within the public discourse. Such concerns surrounding national security, economics, and ideology were also associated with the violent escalation of the Arab Spring.

In Brazil for instance, some citizens have demonstrated against president Jair Bolsonaro's dismissive view of COVID-19 by banging on kitchenware from their residences. whilst others have rallied on the streets by his side against lockdown measures. Demonstrations against stay-at-home orders within the United States have featured protestors equipped with plate carriers and rifles. Australia has been the site of the T-Pocalypse panic that spread throughout the world during the initial growth of the outbreak, as well as some limited protests against lockdowns. In a similar fashion to the first waves of the Arab Spring, shutdown measures in Lebanon have amplified existing public grievances towards deteriorating economic conditions, resulting in banks being set on fire by protestors.

Evidently, the civil stability and national security of world societies are challenged by disruptive phenomena with global reach, such as the Syrian Civil War and COVID-19 pandemic. It could be argued that such global forces would only seriously affect less developed countries with weaker institutional resilience. However, even in a country as prosperous and politically robust as Australia, the Syrian Civil War contributed to the elevation of the threat of terrorism, and the COVID-19 pandemic compelled an unprecedented economic support package of \$320 billion from the Australian Government.

These two cases have already generated considerable challenges to the national

security of the Australian community, and there is mounting evidence that climate change will induce further socio-political turbulence as the 21st century progresses. Aside from addressing intense environmental stressors including droughts and bushfires within its borders, the Commonwealth must also consider and respond to foreign climate-related issues, especially those that require the deployment of military assets. In fact, it was recently revealed that a report was conducted for the Department of Defence that examined and forecasted the civil security implications of globally disruptive phenomena including climate change for Australia.

It must be emphasised that the intersection of climate change and security, through both research and practise, remains a developing field. Aside from the complexity of understanding climate change itself, there are various approaches to analysing its security implications, such as focussing on civil unrest, armed conflict, migration, or focussing on subjects outside of the state-centric paradigm such as natural ecosystems.⁸ In light of the political turbulence of the past decade, especially within the past few months, the impending challenges of the climate breakdown warrant more active attention through a security lens.

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Bushfire Smoke Exposure, COVID-19 and Respiratory Health

SEI editor Liberty Lawson speaks with epidemiologist
Dr Geoff Morgan about his research on the impacts of smoke
exposure from the summer bushfire crisis, and
the disproportionate health effects of air pollution and
respiratory viruses on already vulnerable populations.

By Liberty Lawson,
Content Editor, Sydney Environment Institute

Published 09 June 2020

Liberty Lawson: You recently co-authored a paper published by the Medical Journal of Australia looking at the impact of bushfire smoke exposure on health. Could you walk us through your findings and their significance?

Geoff Morgan: This study looked at the health burden due to the recent bushfires that covered much of south-eastern Australia from October 2019 to February 2020. It used a methodology which looked at the attributable health burden due to environmental exposure, in this case, air pollution from the bushfires. We estimated the proportion of air pollution that was related to the bushfire smoke during that period in Queensland, New South Wales, the ACT and Victoria, and combined this data with information on the health risks due to air pollution from local and international epidemiological studies.

We estimated 417 excess deaths due to the fire smoke pollution, 1124 excess cardiovascular hospital admissions, 2027 excess respiratory hospital admissions and 1305 emergency department admissions. We know that air pollution, including fire smoke, is associated with a whole range of adverse effects on respiratory and cardiovascular health and our study is a way of trying to understand the magnitude of that effect on the population of South Easter Australia exposed to fire smoke during the catastrophic 2019/20 fire season.

It's quite a contrast to see your figure of 417 in comparison with the 33 deaths that occurred directly from the fires.

This is a tragic situation for all the families who lost loved ones from the direct effects of fire including firefighters and people defending the home or fleeing from the fire front. It's difficult to compare the deaths from the direct effect of the fire and the premature deaths that occur due to smoke pollution because we know that smoke pollution generally affects vulnerable people with existing chronic respiratory or cardiovascular disease, as well as the elderly and young children. For example, one of the uncertainties around the mortality burden due to air pollution is the duration of life lost from exposure to air pollution, while acknowledging that any loss of life is a terrible thing. We assume that the people being affected by air pollution and whose deaths have been brought forward are not young, fit health people. So it's difficult to compare the loss of life due to direct effect of the fire front and the indirect effects of fire

Our study illustrates that fire smoke pollution has real health consequences and that we need to better manage fire in our environment as well as the messaging around fire smoke pollution so that we help people to reduce their exposure and thus reduce their risk of adverse health effect.

Do you see any trends in the statistics that are coming out around COVID-19, with the virus, like the smoke, disproportionately affecting populations that are already quite vulnerable?

There is some work emerging that the impacts of COVID-19 may be higher in locations with higher air pollution. We know that the people who are most vulnerable to COVID-19, elderly people with pre-existing disease, are also vulnerable to the effects of air pollution. And air pollution exposure, over a long period of time, can cause increased prevalence of those conditions. There may be higher rates of vulnerable people in those areas with high air pollution and so these vulnerable groups would also be vulnerable to the effects of the coronavirus.

The methodology for this study used epidemiological modelling, do you think it would benefit future research if there was more data collected in real-time by health authorities?

Epidemiologists are always going to say there should be more data collected. One of the complexities around air pollution research is that no one is classified as having died from air pollution, as happens with chronic disease or cancer, no one gets air pollution on their death certificate. And so, it's only by epidemiological research and statistical modelling that we can examine the many ways in which air pollution affects our health.

What would be useful is to find out more about people's exposure to air pollution – for example, how much air pollution exposure people experience where they live, where they work, as well as inside the home and the workplace. That could help us get a better assessment of their levels of exposure during their lifetime, or even just prior to an adverse health event. We have done studies where

we have looked at ambulance call-outs and air pollution levels and found that the level of air pollution where the ambulance picked up the patient – not necessarily their home – is associated with ambulance call-outs and specific health conditions.

So there is a significant causal link, but since this isn't directly reflected in patient data, like a coronavirus diagnosis for example, does this influence management and response?

From the air pollution and climate change perspective, what is interesting is that there has been a huge government response to COVID-19, which has virtually closed down the economy and changed the way people live, and at the moment in Australia there have been around a hundred deaths. That is tragic for the families and I completely support the Governments response to the Covid-19 pandemic. But if you look at the number of premature deaths from the fires [417], or the annual number of deaths from air pollution in Sydney estimated to be around 420 deaths per year, one questions is: why is the government willing to take such a huge response to COVID, and not to urban air pollution or other environmental risk factors that could have substantial health effects - like climate change? And one of the differences may be related to the fact that if someone dies of COVID we know who that person is, we know their name. One difficulty with many environmental risk factors for health is that the environmental factor that had a major contribution to the timing of their death, or their admission to hospital, is not recorded on the health record for that person. This can make it more difficult to convince people and politicians that these health effects are real, and that the magnitude of the effects is big, and that we need to take action to reduce that large health burden.

Geoff Morgan has more than 15 years experience in epidemiological research, as well as environmental health policy and education. His research address important health issues in both environmental health research and health services research, specialising in the use of state of the art biostatistical and geographical information system techniques applied to routinely collected health data linked to small area level socio-demographic and environmental risk factors. The results of his research have been translated into environmental health and health services policy and his current work includes epidemiological studies into: modelling service delivery for rural and remote birthing services in Australia; the health effects of smoke from various sources including bushfires and wood heaters; the effects of drinking water quality on health; the health effects of heatwaves: the relationship between neighbourhood walkability and health; the impact of care coordination on the management of patients with chronic disease. He has a joint appointment with the University Centre for Rural Health - University of Sydney and the North Coast Public Health Unit.

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This definitely highlights the critical importance of studies like yours, in drawing that direct link between the impact of these deaths and these large-scale environmental events, and hopefully, in motivating better preventative strategies and responses.

In the future, when we eventually, hopefully, move to a non-carbon based economy resulting in generally lower air pollution emissions, catastrophic fire seasons like what we experienced in 2019/20 could become the major source of air pollution exposure that people experience in their life. And so, we need to make sure that we not only manage the direct effects of the fires, and the Rural Fire Services and fire authorities do a great job with that, but we also need to manage the health burden of smoke exposure, and try to reduce that exposure. This means taking action to reduce the impacts of climate change which is related to the increasing frequency and severity of fires we are seeing in Australia, and globally.

We need to evaluate the risk of air pollution in the wider context of the effects of bushfire and of community safety. For example, hazard reduction burning is an important tool for reducing fire risk and managing smoke should be integral to the planning of hazard reduction programs. Close collaboration between health, environment and fire management agencies is essential for achieving the best overall outcomes for community wellbeing.

What has been surprising from my perspective [over the past few weeks] is that most governments have embraced science in their responses to COVID-19, and this gives me hope that this acceptance of the importance of science in decision making will lead to renewed action to reduce the impacts of climate change on planetary systems and on human health.

The full study, 'Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia', published by the Medical Journal of Australia is coauthored by Nicolas Borchers Arriagada, Andrew Palmer, David Bowman, Geoffrey Morgan, Bin Jalaludin and Fay Johnston, and can be accessed via the Medical Journal of Australia website.



We're in This Together: Working Towards a New Food Culture

FoodLab Sydney doctoral student Eva Perroni finds businesses, individuals and community organisations rising to meet compounding environmental, public health and economic challenges through potent acts of social solidarity.

By Eva Perroni, PhD Research Fellow, Foodlab Sydney, Sydney Environment Institute

Published 10 June 2020

The cumulative pressures of large-scale back-to-back shocks that Australia has collectively borne witness to, including ongoing drought, the recent megafires and the current global health COVID-19 pandemic, have triggered a gamut of emotional responsesranging from shock, sadness, anger and grief to acceptance, compassion and perseverance. Not only are many Australians working through the loss of property, livelihoods or even loved ones, but also the very fabric of familiar life and the comfort brought on by its standard routines. As the country transits through the uncharted emotional and practical aspects of compounding environmental, economic, and health crises, individuals, businesses and community organisations are rising to this unprecedented challenge through small but potent acts of social solidarity, bringing support, relief and moments of normality to members of their community.

History clearly demonstrates that the uneven impacts of such crises hit society's least privileged the hardest, exacerbating existing disparities as they relate to food. Presently, the food security implications of a COVID-19-triggered economic slowdown are manifesting in some of the most

vulnerable populations across Australia. International students and temporary visa holders are queuing for food across the country, while members of isolated communities, immuno-compromised and elderly persons face barriers in safely accessing supermarkets. Migrants and newly-arrived refugees excluded from the government's support mechanisms are relying on food and care parcels from charities to feed their families. Widespread job and income loss are increasing financial pressures and pushing more people into the ranks of the food insecure, making the fissures of Australia's already fragile food relief system all the more apparent.

"Widespread job and income loss are increasing financial pressures and pushing more people into the ranks of the food insecure, making the fissures of Australia's already fragile food relief-system all the more apparent."

The disruptions caused by coronavirus have also extended along the food chain, forcing a massive reshaping of local food system enterprises, operations and transactions from farm to plate. Social distancing measures have forced restaurant and farmers' market doors to close to the public, creating a major demand shift from food service to an already highly concentrated food retail

sector. This has not only resulted in a reorganisation of how and where people buy, prepare, and consume food but has also placed major strain on small farming and food businesses struggling to find alternative avenues to sell their goods and stay in business.

There are obvious implications on food systems in both urban and rural areas, so how might these disruptions prompt a re-think of Australia's food and agricultural systems towards building more diverse and resilient local food systems? The future of how and what Australians eat, and who has the privilege to choose, is contingent upon the pursuit of a new, values-based food culture once quarantine is lifted.

New initiatives and collaborations among businesses that place the social health of our communities at the core their enterprises are already charting a path toward a more equitable food culture. An example is Colombo Social, a social enterprise kitchen who have evolved their #PlateitForward campaign to feed the most at-risk members of communities across Sydney during this difficult time. Together with a team of talented chefs and experienced restaurateurs and in collaboration with charity partners Mission Australia and Settlement Services International, the

"Sharing people, expertise, operating models, resources and ambition can help social enterprises already successfully addressing social problems to become more efficient and grow so that they can reach more people and increase impact."

Eva Perroni

Eva Perroni is a doctoral student at FoodLab Sydney, an interdisciplinary project supported by University of Sydney's Sydney Environment Institute (SEI) and UNSW Canberra, in partnership with the City of Sydney, and TAFE NSW addressing local food insecurity through participatory social enterprise. Her research will assess opportunities and processes in building a participatory culture to effectively address food insecurity and social exclusion within local communities in Sydney.

FoodLab Sydney wants to learn how food and farming enterprises across Sydney and New South Wales are coping with increasing challenges across Australia's food chain and what their visions are for a more resilient, equitable food system.

Contact Eva Perroni at eper8307@unisydney.edu.au to share your views and be part of the discussion.

initiative has already delivered more than 11,000 high-quality meals to elderly Indigenous Australians in Redfern, social housing residents in Camperdown and people seeking asylum in Marrickville.

"Community lies at the heart of the #PlateitForward movement and Colombo Social. As a for-purpose business we have a responsibility to help the most at risk and vulnerable which is what we did at the time they needed it," says Colombo Social founder Shaun Christie-David. "A lot of companies look out for those in their 'target market' but we wanted to help out those who may never be our customers, but are integral and incredible members of our community, and sometimes get overlooked. This was always the purpose behind #PlateitForward, and with the economic crises continuing and worsening, we have committed to this project as a long-term project."

Difficult social problems often require collaborative solutions, and for Shaun, facilitating smart partnerships among social enterprises and across sectors is one way of bringing impactful solutions to more people. Social enterprises share many common features: limited resources, dwindling sources of funding, and passionate but often overworked teams. The key commonality, however, is the shared vision as purposedriven businesses to create positive social and environmental change. Sharing people, expertise, operating models, resources and ambition can help social enterprises already successfully addressing social problems to become more efficient and grow so that they can reach more people and increase impact.

"Collaboration in our sector is crucial for our collective long-term sustainability as an industry. We are stronger together and can create change and impact much greater through smart and aligned partnerships," affirms Christie–David. "As the recession hits harder we will see budgets getting tighter and therefore every dollar saved means so much."

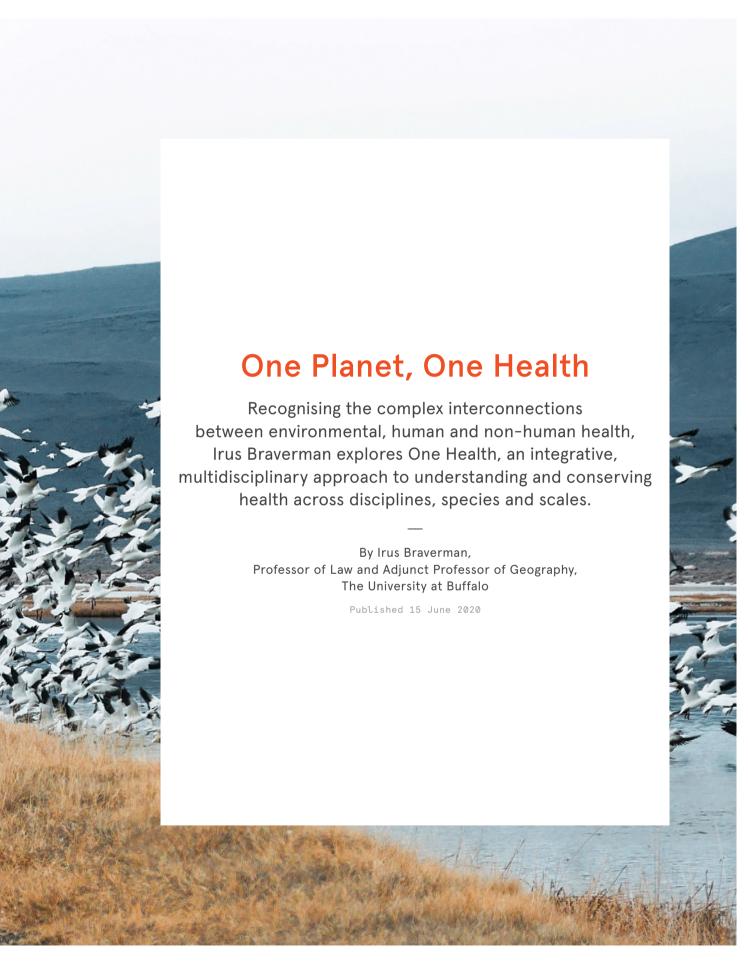
Collaborative and inclusive strategies and policies are also required by the government to create enabling environments for social enterprises and other innovative programs working toward greater food equity. "Joinedup" policy thinking and action, where government works collaboratively across portfolios and agencies to develop a more holistic approach to policy design and delivery, are required to reform the macroconditions that place vulnerable community members at increased risk of food insecurity and limit the opportunities for small food and farming enterprises to thrive. Crucial to this task is a participatory policymaking process that brings industry and community to the table and foregrounds the experiential knowledge of those most involved in and affected by food system issues.

These are unprecedented times of unprecedented need, calling for leadership across all levels of the food system to stimulate transformation with unprecedented solutions. "We have seen how important food security [in this country] is and that hopefully will lead to us coming together," says Christie-David.

Driven by creative energy, community solidarity and an urgent sense of pragmatism, businesses like Colombo Social are building networks and alliances to share skills, knowledge and resources while fostering an ethics of care towards society's most vulnerable and food insecure. Drawing on this collaborative, community-driven ethos can open up pathways and policies so that Australia not only bounces back from these cumulative crises but bounces forward to a better, more equitable food culture.







"The myriad planetary crises are deeply interconnected: the coronavirus crisis is connected to the climate change crisis is connected to Black Lives Matter and the social justice crisis."

Irus Braverman

Published 15 June 2020

Each of us has likely heard, at one point or another, that everything on this planet is connected—the flap of a butterfly wing and so forth. And we might even feel, intuitively, that this is true. But in the face of the different catastrophes that have been competing for our attention day in day out, things might not seem all that connected. In fact, the catastrophes seem to be demanding our urgent prioritisation: which is the one we'd be willing to hit the streets for, or invest our money in? At the Black Lives Matter demonstration, which drew hundreds of passionate protesters in our midsize U.S. city, my 10-year old seemed disappointed. She has been striking for the climate on many Fridays for the past year. "We've worked so hard and we've never got a turnout like this," she said. "The climate crisis just doesn't seem to be as important to many of these people."

But that isn't necessarily true, or at least it shouldn't be. Not just butterfly wings but also the myriad planetary crises are deeply interconnected: the coronavirus crisis is connected to the climate change crisis is connected to Black Lives Matter and the social justice crisis. Although we understand this intuitively, our brains and our knowledge systems somehow compartmentalise them, as if we needed to decide on a focus to be able to comprehend an issue. The One Health approach to these issues expands the lens so as to recognise the interconnections, bridging our habits of compartmentalisation and the silos of our disciplinary ways of knowing. It allows us to recognise that we are facing unprecedented challenges on multiple fronts: a rising demand for dietary animal protein, a loss of biodiversity, and the fact that over 75% of emerging infectious diseases are zoonotic.\(^1\) Such challenges require a

Experts don't all agree about the history of the One Health approach. Some trace it back to the One Medicine approach of the early 1900s, others claim that it only began in earnest with the rise of conservation medicine in the 1990s. But one thing is in broad agreement: that One Health, in its contemporary manifestation, is "a transdisciplinary approach to study the relationships among the health states of humans, animals, and ecosystems to ensure the conservation of all".²

collaborative, holistic, and interdependent approach to health.

Adopting such a triadic outlook that includes humans, animals, and the environment is crucial to One Health (or, as some still call it, "conservation medicine"). As Thomas Lovejoy wrote in the preface to *New Directions in Conservation Medicine*: "We have come to understand that the health of humans, animals (and plants!), and ecosystems are all inextricably intertwined. Indeed, given the major disturbance

to the biophysical system of the planet itself through climate change and ecosystem destruction and degradation, we also must include the 'health' of the biosphere". The book Conservation Medicine: Ecological Health in Practice further defines this new discipline, arguing that, "scientists and practitioners in the health, natural, and social sciences [must] think about new, collaborative, transdisciplinary ways to address ecological health concerns in a world affected by complex, large-scale environmental threats".4

One Health is not only interdisciplinary, then. It is also multiscalar. Scientists can "piece together an understanding of the processes—spanning all levels of biological organisation, from cells to ecosystems—that comprise the ecological context of health. Such an approach is a radical shift away from viewing diseases solely in terms of the response of individual organisms to infection or the spread of infection through populations".5 What were once perceived as more or less rigid categories are increasingly understood as messy, fluid, and dynamic multi and interspecies relationships.6

Reflecting on the coronavirus outbreak, Saint Louis Zoo's veterinarian and a strong proponent of One Health Sharon Deem cautioned about the tendency, even within One Health, to highlight the plight of humans and neglect everything else. In her words:

"Most people have no idea that Ebola has wiped out half of the great apes in areas in the Congo. They just think of it as a human disease. So we jump right into our concern for humans. But in the long run, we are going to shoot ourselves in the foot because we are not going to get down to the root cause at the conservation level. The only positive thing in the [coronavirus] is that people are saying [that] we need to close down wet markets. [So] we are realising that we need to figure out ways to feed humans—but not at the cost of wildlife trafficking and human pandemics" (interview by Zoom, January 2020).

Deem is passionate about wildlife: "In 50 years, we could be a planet of 11 billion people and billions of domestic animals, but close to zero free-living wild animal populations. How pathetic is that? . . . It's tragic."

But does the One Health approach go far enough? In "Views from Many Worlds", social anthropologists Hayley MacGregor and Linda Waldman suggest that it doesn't. They assert that although One Health speaks about multiplicity and cross-disciplinarity, it is at the same time reliant upon (western) scientific ways of knowing and practising medicine, and on traditional distinctions between humans and animals,



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and between nature and society. They show, for example, that the vast majority of One Health texts do not incorporate Indigenous vocabularies or insights about colonial structures and ethnic, racial, or gender power dynamics.

How, precisely, to bridge interdisciplinary silos has indeed been the challenge of One Health. Animal health experts, human health experts, and ecologists all have a seat at this table. But social scientists and humanities scholars have, as of yet, not been too involved. When I first contacted her, Sharon Deem was delighted that a social scientist was taking interest in One Health. Without anthropologists, she said, we wouldn't have understood local burial practices that contributed to the spread of Ebola and we could not have then effected change on this front.

But the role of social scientists in this context can, and should, be broader than identifying local human practices that contribute to diseases. Social scientists can provide a mirror for One Health to reflect on itself so as to recognise the limits of its expertise, as integrative and transdisciplinary as it

already is, and to consider other forms of knowledge that move beyond the scientific ones. This is a call for the inclusion of such scholarship so as to build a "multier" disciplinarity of One Health.

This, perhaps, is what social science and posthumanities participation could bring to One Health: a fresh perspective that would productively unsettle the categories implied by One Health frameworks and the boundaries they still all-too-readily draw between humans, animals, and the environment. "Human exceptionalism blinds us," anthropologist Anna Tsing wrote, in a statement that is not only descriptive but also cautionary.8 Despite such criticisms, it is important to acknowledge that the novel practices of One Health are a bellwether of this powerful and potentially transformative moment and one that shows us that the way forward is in making the connections.

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COVID-19 and Renewable Energy: Australia's Golden Opportunity

"With the right policy and green funding settings, we can finally live up to our ambitions as a renewable energy superpower and overthrow our reliance on non-renewable energy," says Dr Madeline Taylor.

By Madeline Taylor, Sydney Law School, The University of Sydney

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"Economic recessions often also come hand in hand with the relaxation and wind-back of environmental regulations to fast-track large fossil fuel projects in an effort to easily kick start economies."

Madeline Taylor

Australian CO2 emissions from electricity generation declined by 8% in the National Energy Market this year.¹This didn't result from policy change or the COVID-19 lockdown itself, but from our changed daily habits. The other significant factor in our emissions drop is the increased uptake in renewable energy.

While this emissions drop is welcome news, a much larger and urgent risk looms. Australia is now officially in the first recession in 29 years. Historically, restarting economies after recessions causes emissions to surge. For example, emissions grew rapidly in the rebound from the Global Financial Crisis in 2010 increasing by 5.8%, compared to the previous long-term average of 2.0%. This cancelled out any previous emission reductions experienced in 2008.²

Economic recessions often also come hand in hand with the relaxation and wind-back of environmental regulations to fast-track large fossil fuel projects in an effort to easily kick start economies. This is evident in the recent approval of the 25,0000ha coking coal mine on 6,000ha of koala habitat, 41,000ha of potential agricultural land and 11 wetland zones in Queensland, and the likely imminent approval of the Narrabri coal seam gas project.³ ⁴ Environmental crimes also occur during economic crises when media and political attention is turned elsewhere. Rio Tinto's recent destruction of two ancient Aboriginal rock shelter site of the Puutu Kunti Kurrama and Pinikura peoples to make way for iron ore mining has appalled the nation.5 This demonstrates worrying signs of an economy focused on increasing economic activity at the expense of our environment and emissions targets.

Despite the gains in renewable energy market penetration, coal remains the dominant energy source in our electricity mix representing 56% of total generation.⁶ A recession may favour easy access to existing fossil fuel energy sources while pulling investments in new renewable energy projects. The COVID-19 pandemic has led to a collapse of funding by more than 50% for new wind and solar project commitments in Australia and a drop of up to 20% in global energy investment (A\$601 billion) compared with 2019, according the International Energy Agency⁷

2019 saw the highest levels of carbon emissions ever on our planet. Australia must make reductions to its emissions consistently year on year at a rapid rate in order to reach the zero-emissions by 2050 target, set by all Australian states and territories. Yet, Australia has not had a consistent federal energy or emissions reduction policy for over thirty years. Indeed, such lack of policy direction was once again confirmed by the federal government which will not follow the example of states and territories in creating a federal zero emissions by 2050 target.⁸

We must create, implement and enforce clear and consistent renewable energy policy to ensure our emissions do not surge in our eventual economic rebound. Such a policy could centre on the resources that we have in abundance – solar energy.

The Australian continent receives annual radiation of 58 petajoules or 1600kWh per square metre per year, representing 10,000 times the national energy consumption.9 However, overall, the provision of onshore commercial large-scale commercial solar power within Australia is relatively small, at 7022 MW.¹⁰ Large-scale solar energy is not yet broadly deployed as an energy source for large industrial loads in Australia. This is largely due to a lack of battery storage and a lack of consistent policy and regulation encouraging its commercial deployment.

Madeline Taylor specialises in Energy and Natural Resources Law and specifically on the intersection between unconventional gas regulation, energy policy, and landholder rights. In particular, her research advances a novel examination of transitioning energy regulation from a comparative and socio-legal perspective, including the strategic governance of energy and the fragmentation of ownership rights between the state, corporations and

In the wake of calls for a federal energy policy, the *Energy Technology Investment Roadmap Discussion Paper* was recently released. However, the Roadmap doesn't represent a policy stance, rather, it surveys an enormously broad framework of 140 differing low emission technologies to bring investment and 'improve productivity and support a resilient economy'.¹¹ Such investment will take on an uncontrolled market-led basis by 'incentivising voluntary emissions reductions on a broad scale' without introducing any taxes or pricing on carbon.¹² There is no indication that large-scale commercial renewable energy projects will be prioritised.

The omission of coal from the *Roadmap* represents a long-awaited moment for many Australians. However, in its place, gas is touted as playing an important role in 'balancing renewable energy, ramping up and down to match supply and demand'.¹³ Such a statement is true to the extent that current storage infrastructure is not able to balance intermittent renewable energy generation. Rather than pinning hopes on a 'gas led' recovery that could create a graveyard of stranded gas infrastructure within a matter of years, a 'battery led' recovery is what the Australian energy sector desperately needs.

Speeding up the creation of battery infrastructure via green funding and deployment, backed up by regulatory and policy certainty, will provide stability and reliability for renewable energy. The call to develop battery technology and facilities is largely being taken up by the solar industry. But as storage technology is an expensive business that waxes and wanes with economic peaks and troughs, a government-backed green fund and regulatory

requirement to build large-scale batteries in conjunction with large-scale solar energy farms (over 5 MW) would provide much-needed certainty and resilience to our energy sector.

However, time is not on our side. We cannot leave our energy policy future and the fate of renewable energy uptake to the 'invisible hand' of the market any longer. The UN and climate scientists alike have warned we have just ten years to stop irreversible damage from climate change. 14 In order for Australia to play our part, we must fast-track consistent federal energy policy and deploy a green stimulus package. This could include creating renewable energy zones, earmarked and strategically reserved for renewable energy projects and connected via integrated transmission lines within the National Energy Market. The funding and deployment of large-scale batteries to increase efficiency, productivity and stability would also provide much-needed firming capacity to renewable energy.

COVID-19 represents a once in a generation pivotal opportunity to reset our energy system and finally create a sustainable renewable energy policy. Such a policy is in the public interest and will ensure we continue to reduce our emissions to safeguard our planet, currently experiencing the sixth mass extinction event. Renewable energy must also go beyond political cycles and contestation. It is time for Australia to move on from a struggle over large-scale renewable energy to harnessing its golden opportunity as a sustainable, secure and lucrative export opportunity both domestically and when exported internationally. With the right policy and green funding settings, we can finally live up to our ambitions as a renewable energy superpower.

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Jo Longman and Maddy Braddon find stark parallels between their work on the mental health and wellbeing impacts of climate change and the current pandemic gripping so many lives.

By Dr Jo Longman and Maddy Braddon, University Centre for Rural Health, Lismore, The University of Sydney

Published 12 July 2020

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Published 12 July 2020 Even though we behave as though it isn't, change is a near-constant in our world, and at present, it feels like crisis is the new normal.

The kinds of radical changes we have had to adapt to during the most devastating bushfire season in NSW on record and now throughout the COVID-19 pandemic have brought our relationship with the physical and social world into sharp relief.

Reflecting on this whilst feeling completely overwhelmed in lockdown, we have been struck by the incredible similarities between how our mental health has been affected by both the bushfire crisis and pandemic experiences.

The powerful and diverse mental health impacts of the climate crisis are becoming more widely recognised. Reading through some of this literature to conduct a review (focused mainly on climate change in the form of extreme weather-related events such as floods and fires), we discerned three 'pathways' by which these events affect our mental health.

Direct, distal and generalised impacts

Firstly, a direct impact exacerbates pre-existing mental illness, affects mood disorders like depression and increases suicidality through a direct experience. For example, the terror of experiencing a direct threat to one's life from a bushfire, or the aching loss and grief of losing one's home and treasured possessions. In the case of COVID-19, it seems that this direct mental health impact would be experienced by people facing the fear and uncertainty of a positive test result, and by the numerous healthcare workers on the frontline, trying to cope with the distress of, for example, impossible decision making.

The second, 'distal', pathway is characterised by a profound mental health impact (e.g. anxiety, emotional distress, vicarious trauma) not related to a direct experience of the climate crisis but that is there none the less. An example of this would be feeling distressed by all the debris piled up on the streets following a flood even when one's own home or suburb was not inundated with floodwater. Similarly, many of us watched on in horror, albeit from a distance, at the scenes unfolding in New York City at the height of the pandemic in the US and feared what might or could have happened in our own communities here in Australia

The final pathway is more generalised, characterised as a broader climate anxiety, a 'climate grief' if you will, about the health of the planet and the uncertainty of its future. This affects mental health in terms of guilt, helplessness, hopelessness, frustration, and a loss of connection to place, identity, and sense of control.

This existentially threatening sense of impending apocalypse and its mental health impacts has been with us throughout the pandemic.

Community resilience

What we know from research on the mental health impacts of the climate crisis is that community resilience (including social capital, the 'glue' that holds society together') can protect against negative mental health outcomes. This community resilience can be defined as the "existence, development, and engagement of community resources by community members to thrive in an environment characterised by change, uncertainty, unpredictability, and surprise" and is associated with optimism, being socially connected, learning from the past and learning patience and tolerance.

This pandemic has taught us to really appreciate, in the starkest way, the fine mesh of social relationships that are integral to our mental health and wellbeing and that being physically distanced is actually incredibly hard. There have also been inspiring displays of community resilience as groups come together around 'mutual aid', here in Australia and beyond. This, we hope, is showing us what is of greatest value in society, that we cannot get through adversity that affects us all as individuals. Not only this, but we can act together in caring ways to become stronger and participate in solutions to society-wide problems like the climate crisis and pandemics.

Many others have been thinking about and discussing these powerful parallels between the climate crisis and the pandemic. An open letter submitted in May 2020 by health professionals to G20 leaders argues that a healthy recovery includes a focused effort on pollution, climate change and deforestation, in order to prevent "unleashing new health threats upon vulnerable populations".

Extreme weather, and the capacity to recover from it individually and as a community (physically, financially, mentally and emotionally) does not affect the population equally. Similarly, COVID-19 seems to have had the greatest impact on disadvantaged parts of the community. Regardless of what kind of crisis emerges, it is crucial that governments, policymakers and support services continue to find robust ways to support communities, to strengthen their capacity to thrive and support one another through hardship. Witnessing the unequal impacts of the climate crisis and the pandemic unfold demonstrates the importance of a strong collective response.



Jo Longman is a Research Fellow at the <u>University Centre for Rural Health</u> (part of The University of Sydney, based in rural northern NSW). Jo leads a project collaborating with a broad team including colleagues from the SEI, funded by the NSW Department of Planning, Industry and Environment and the University of Sydney. The project aims to develop a typology of the mental health and wellbeing impacts of climate change, and to explore enhancing resilience among vulnerable rural communities. To date the project has conducted a Scoping Review of the literature and developed a draft typology. The next stage of the project is to engage the community in three rural NSW locations to review the findings and identify priorities, and to then develop a policy brief for government based on the findings of the project.

Maddy Braddon is a research assistant on the project Identifying the impacts of climate change on mental health and wellbeing of vulnerable populations and strengthening intersectoral capacity to enhance rural adaptability and resilience. Maddy has an Environmental Science background and is a change-maker with a focus on climate justice and building community resilience.

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The plastics industry is notorious for manipulating consumer behaviour by tapping into our most fundamental desires and fears, writes India Gill, and with the industry's future in jeopardy, the opportunity to re-brand single-use plastic bags as a safer option for public health than reusables is a marketing dream come true.

By India Gill, Faculty of Arts and Social Sciences, The University of Sydney

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"The plastic industry is tapping into the threat of coronavirus contamination, deeming reusable bags as vectors for the virus, when there is little scientific evidence [...]. This is war profiteering [...] consistent with the clear historical pattern and practice of the plastic industry to manipulate consumer behaviour to its benefit."

India Gill

Published 22 July 2020 From the moment you step back into Australia from abroad and are escorted by the military to your guarded hotel room for a mandatory 14-day quarantine, there is no mistaking that we are truly in a war combatting the coronavirus pandemic. One of the inescapable realities of history is that with war come war profiteers; those who unethically take advantage of the crisis for their own ill-gotten benefit to the detriment of society.¹ Sadly, this war against the coronavirus is no exception and its war-profiteering villain is the plastic industry.

Over the last decade, tremendous progress has been made to eliminate singleuse plastics, most notably via regulations around the world either prohibiting the use of single-use plastic bags in grocery stores or implementing a monetary surcharge to deter their use. According to the 2018 UN Environment report, over 127 countries have adopted some form of legislation to regulate single-use plastic bags.² Yet virtually overnight, the plastic industry has undone this hard earned victory for our environment, all under the false pretence of protecting our front line workers in supermarkets.

The plastics industry has fed the narrative that customers cannot bring their own reusable bags to supermarkets because doing so would expose their employees to the coronavirus.³

Let me unpack this canard. I arrive at the supermarket. I am wearing a mask. The trolley I am using has been sanitised. I go about my shopping, and in doing so I touch, with my bare hands, every single item that I place in my trolley (which have already been touched by those who packed, shipped and stocked them). I go to the check out aisle. I again touch every single item in my trolley as I place it on the belt. The employee who then packs my groceries, who is wearing a mask and gloves, then touches dozens of items that I have just touched and places them into a single-use plastic bag. Yet somehow if that same employee touches one more item that I have also just touched, my reusable bag, that person will somehow experience an unacceptable additional risk of contracting the coronavirus. The plastic industry is tapping into the threat of coronavirus contamination, deeming reusable bags as vectors for the virus, when there is little scientific evidence for this.4 The coronavirus can survive for days on plastic surfaces and plastic bags, therefore, are no safer than reusable bag fibres.5 Plain and simple, this is war profiteering by the plastics industry.

This is consistent with the clear historical pattern and practice of the plastic industry to manipulate consumer behaviour to its benefit. Although hard to imagine today, there was a time when single-use plastics didn't exist. The burgeoning plastic industry seized upon the post World War II spike in consumerism to introduce a "simpler" and more "convenient" way of life.6 Rather than refilling milk in glass bottles and buying soda in aluminium cans, the world was provided with an ostensibly easier and cheaper alternative, single-use plastic.7 The industries ultimately aimed to sell people "garbage" that they would use once then throw away, only to buy it again the next day and it succeeded in making single-use plastic a staple of human life.8

The industry's economic prosperity took absolute priority over the devastating environmental effects of plastic waste - yet by the 1960s, society began to recognise the early stages of a plastic crisis the Plastics Industry Association could no longer ignore.9 In response to this initial backlash, the plastic industry introduced the Council for Solid Waste Solutions to promote recycling programs.¹⁰ Recycling was a persuasive means of alleviating any sentiments of consumer "guilt" surrounding plastic waste. As early as 1987, it was acknowledged that recycling was simply not a feasible solution to managing plastic waste, and as of 2017, only 8.4% of plastic was being recycled.¹¹ The Plastics Industry Association then pivoted to arguing that "waste management practices and infrastructure did not keep pace with the changing economy," successfully creating the illusion that all plastic is recyclable.12

This deception continued with the plastic industry campaigning to hold individuals responsible for the mismanagement of plastic waste. The threat of a disposable bottle ban in Vermont resulted in the plastic industry's highly influential campaign, "Keep America Beautiful". The plastic industry fabricated the message that plastic waste was not responsible for pollution; rather the responsibility lay in the hands of society and how people

manage their own plastic waste. ¹⁵ In 2019, plastic manufacturers formed the Alliance to End Plastic Waste and pledged \$1.5 billion to help "make the dream of a world without plastic waste a reality". ¹⁶ These measures have simultaneously created a positive public image for the plastic industry while distracting the world from the plastic industry's responsibility for our current environmental catastrophe.

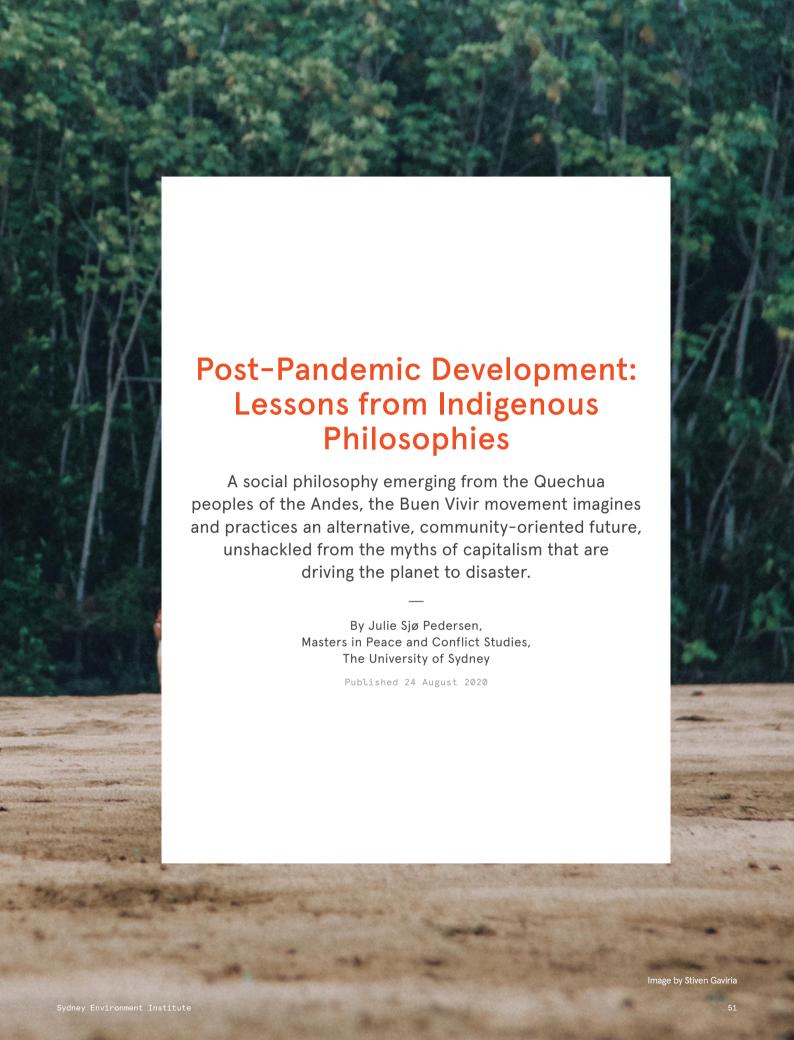
Over 50 years ago in the movie The Graduate, successful businessman, Mr. McGuire, solemnly imparted to the young, impressionable Benjamin Braddock that "the future was in plastics".17 Sadly, Mr. McGuire's advice was prescient. The plastic industry has indeed dominated the last 50 years, using its money, power and influence to beat back efforts to control the insidious impact of plastics to our planet. Environmentalists finally broke this half-century of plastic industry dominance by championing regulations designed to eliminate single-use plastic bags. If we do not hold the line and preserve these gains now, in the face of the plastic industry's insidious coronavirus war profiteering, our "future" will be 50 more years of "plastics" and that's no future at all.

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"Change becomes inevitable in the post-pandemic restructuring period — in fact, it might offer a unique opportunity to uproot and challenge the prevailing discourse on development."

Julie Sjø Pedersen

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For many of us, the idea that the development of humanity and nature are connected is not a new one. However, the manifestation of such an idea into reality has proven difficult. Thus, as humanity expands, we are instead encroaching upon vulnerable ecosystems part of a larger system of life of which we are part. Our endless desire for development is founded upon resources we know not to be boundless, but that we perceive as expendable towards the teleological good of our own progression. One alternative philosophy is inspiring a political movement emerging from within the depths of the Amazonian forest, termed by its Indigenous advocates as the Buen Vivir Movement. The philosophy by which this movement draws its name - Buen Vivir, literally, well-being - emphasises the intrinsic connection between humans and nature in an extended community envisioned as the goddess Pachamama.

Philosophies such as Buen Vivir gain a renewed sense of purpose as the world enters into its second wave of the COVID-19 pandemic. For the first time in a long while, the world is collectively prioritising the public health and wellbeing of the global community over development models bound by economic growth. As the world locks down, human activity and development stagnates, having profound effect upon the economy as well as the environment. Resultingly, we are reminded of the value of nature, and of how it relates to the wellbeing of all of us. Among the many things the pandemic has vividly demonstrated, is that the way we are currently developing is unsustainable and fragile. Disruptions to international movement and trade causing profound socio-economic distress has many questioning the foundation upon which we develop, and of what matters in the long run.1

However, as the global community shuts their doors amid lockdowns, other doors are swiftly opened: change becomes inevitable in the post-pandemic restructuring period, resultingly creating an impetus for renewed discussion. In fact, it might offer a unique opportunity to uproot and challenge the prevailing discourse on development, a challenge long confronted by the aforementioned Buen Vivir Movement.

This movement draws its momentum from Indigenous Andean philosophies embedded in the theory of an interdependent community connecting humanity and nature. It has risen in opposition to our contemporary development models rooted in the ideology of a "the-market-is-king model of capitalism",2 resting upon the conception of humanity as "a noble wanderer who roams the 'illimitable plains' of endless discoverable resources".3 Our encroachment upon nature, on which the global market rests, has tangible effects upon the wellbeing of this extended community, evidenced by climate change and environmental erosion. A developmental system whereby such exploitation is fundamental to human development is thus flawed; the erosion of nature similarly affects the wellbeing of humanity as the two are intrinsically connected. Thus, the South American movement has used this philosophy as a basis for discussing and advocating for sustainable development, placing the wellbeing (buen vivir) of our extended community above our unending desire for economic growth.

As our contemporary approach to development experiences difficulty amid this pandemic, an influx of articles and commentaries on the future of development in the post-pandemic era has resulted, exposing some of the limitations forecasted by the movement. As the world fights to prevent the spread of the virus, human activities have come to a halt with air and road transport taking the most significant toll. Air travel, for instance, dropped by 96% in April, the lowest it has been in 75 years. Furthermore, the industrial sector has suffered similarly,



significantly reducing greenhouse gas emissions. Additionally, the oil sector has been significantly impaired, with "crude oil [prices] turning negative for the first time in history". 5 Our current approach to development relies upon such activities, causing the economy to suffer when activity stagnates. These developments are likely to have a profound effect upon the world economy, and therefore, the wellbeing of large parts of humanity. These are some of the pitfalls associated with the myth of 'eternal growth', and its fragility — as foreshadowed by the Buen Vivir Movement — has now been exposed.

The lesson here is evident; when we can no longer sustain this system, be it from the impediment caused by a global pandemic or the steady erosion of our planet, the costs are profound for both humanity and nature.

However, with such a disruption to the status quo, other aspects of life are flourishing. NASA and the European Space Agency recently released evidence suggesting an improvement in environmental quality with the global emission of NO2 reduced by 30%.6 With reduced emissions due to lowered human activity, nature is enabled to stabilise itself enough for a slight improvement, demonstrating the connection between human activity and environmental quality. Resultingly, nature seems to be reclaiming its vigour, and with it, the life around it thrives due to improved water and air quality. Albeit these changes are not enough to foster

long-term positive results, but they do fuel the flame of a growing debate about the future of our shared development. Perhaps as a comforting silver lining amid otherwise uncertain times, this debate might spark the potential for change.

The pandemic has demonstrated an important point, key to Buen Vivir: nature and humanity share an intricate connection whereby the actions of one affect the development of the other. Rather than the dominance of one over the other, the two are part of a united whole; "one contains the other, they are not separable". 7 So is the philosophy of the Buen Vivir Movement; the development of one cannot come at the detriment of the other. Amid the changing atmosphere of the post-pandemic world, whereby change is ripe and numerous, a discussion incorporating such philosophies is now burgeoning and, moreover, vitally important. The pandemic has exposed many flaws in our current approach to development, but it has also provided us with a unique opportunity to uproot and challenge it.

Thus, without holding all the answers, but with the desire to spark a profoundly important debate about development, the Buen Vivir philosophy urges us to ask: what if development *did* not start with money, rather, it started with human wellbeing? The pandemic has shown us that this is *possible* and, moreover, that it is *necessary* to better face the challenges of tomorrow.

Julie Sjø Pedersen is an international student from Norway, currently studying a Masters in Peace and Conflict Studies at the University of Sydney. As she specialises in theories of peace and conflict, she has gained a particular interest in the environment whereby indigenous cosmovisions of ecological peace and justice has become a core concern. Followingly, she aims to undergo further research particularly into peace as a concept in indigenous movements such as Buen Vivir, and the impacts of such philosophies on our future development.

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"For a seed to achieve its greatest expression it must come completely undone. The shell cracks, its insides come out and everything changes. To someone who doesn't understand growth it would look like complete destruction." Cynthia Ocelli

We began The Trees of Afghanistan Project in 2019 and have spent much of 2020 trying to navigate the complexities of creative collaborations over distance. COVID has created separation, isolation, and loneliness for many, including us, and it has impacted our practice and ability to collaborate. We are both women who are currently living alone because of the pandemic. Ann has worked between Afghanistan, Netherlands, Hungary, and India this year, while Diana has been based in Sydney. The international nature of our collaboration, proximity to Afghanistan (the geography where the research is based) and shifting creative mediums and output plans for the project have led to redrawing timelines, challenging time zone negotiations, and a general difficulty we could not have anticipated when we began.

By looking at the experience of trees and what we know of their life and communication, we will attempt to communicate these challenges we have faced through this lens. We have held close the idea Ocelli communicates, that while what many of us went through in 2020 may have looked like complete destruction, it was in fact complete transformation.

Isolation

Due to the pandemic many of us have had to remain in the same place for long periods of time without the mobility we are used to. Diana, who typically travels for research, has been unable to leave Australia for this project and others. Similarly, a tree often remains in one place its entire life. Some of us have lost loved ones and many of us have experienced major disruptions to our daily lives, social

networks, and our daily activities. We asked ourselves what we can learn from looking at how trees navigate their 'lack of mobility', and in some cases their movement from place to place and what we can apply to our own understanding in this way.

Trees do better when they are together. in a forest or the woods. Ecologist Suzanne Simard has shown how trees use a network of soil fungi to communicate through underground root networks and rely on their interconnected nature for support and survival. We also know that when a plant is moved from one pot to another it takes time to acclimatise to the nutrients and new environment. Humans require these same support networks and the same adjustment to new environments though we may not always give ourselves the permission, the time or the space for this. People sometimes place trees ornamentally in relative isolation, for example in pots in their homes or on terraces, these trees become entirely dependent on the person to survive, they may even shrivel and 'die' but life is still within them, invisible to us. In this same way, the isolation many of us have experienced due to lockdowns or distance from loved ones may contribute to feelings that we are not receiving the type of nourishment, tactility, or support we need to feel alive and present.

What happens to us when we are distressed?

Initially this project was envisioned as an in-person exhibition, a space where visitors could roam within a space filled with visual, sonic, and text-based narratives about the trees of Afghanistan. The exhibit would include stories from Afghan people of their memories and knowledge about those trees, how they relate to trees, and stories about the space trees take up in their lives. We realised around April that we were going to need to move from an in-person exhibition to something virtually accessible. When we started thinking

through the possibilities for this it led to several interesting outcomes. The first is that we began working with a 3D concept artist, Kushaan Chavda, who used a number of photos from one Chinar tree to create a highly detailed 3D visualisation that can be projected like a hologram in a space or shared virtually. This was a bridge for us, allowing us to think about the physical and tactile aspects of trees in a virtual space. Kushaan's model highlights each knot, and ridge in the tree's bark, so much so that it feels as though you can reach out and feel the Chinar. This led us to want to focus on the tactile more than the virtual, physical objects and practices that happened by hand, versus computer-based manipulations and expressions. Perhaps this move to the tactile was aided by the distance we felt in our daily lives from human touch and the realisation we would need to take this project into a non-tactile environment. Ann started focusing on embroidery of trees from the project and being physically present with the project materials. Her logic was that all materials come from the earth in one way or another. Even synthetic materials are made from chemicals and materials that come from the earth. When we are so isolated and working over distance it can be complicated and confusing to understand the circumstances in which we are all existing, which can cause an unmooring to occur. This focus on the tactile provided a grounding force.

Tree of life and its invisible narrative(s)

Suzanne Simard has also warned us that threats like clear-cutting and climate change could disrupt these critical underground networks that trees and plants rely so heavily on. But what does that mean for trees in war torn Afghanistan?

While working in Afghanistan, a country suffering from decades of war and conflict, Ann frequently contemplated the nature of human narrative, especially its impact on our own growth, life and death. When you meet someone in Kabul you'd never guess that they went through years of political instability and war or that they may have lost a dear one. The trending news about Afghanistan is about conflict and death, with rare glimpses into the lives lived or the lives lost. Can you comprehend an eighty-year-old tree? It takes twenty to fifty years to grow from seed to full adult and it is gone in an instant when it is chopped down. A living breathing being is gone. Is this like the human experience?

We borrow everything we need to survive from the earth, as do trees. If a tree is allowed to die in the forest, there is a process it goes through. It passes on the data it has to the other trees and then it dies nourishing the soil as it does. Can we say the same for human beings, in that there is a ceremonial action for us to go back to the earth through practices including cremation and burial?

Although we are not alone in expressing or perceiving the metaphor of a tree in our lived experience, who indeed understands trees,

who celebrates their life and learns their secrets, who mourns their death? We asked these questions of the trees in Kabul, which is how the Trees project began.

During the months of lockdown, Ann was happy to be 'stuck' in her hometown, in Kerala, India. She reconnected with the trees on her family's farm that had witnessed the lives of the family over a century, the trees surrounding the space where her mother and later Ann herself ran barefoot. One of the oldest trees on the property is the Anjili Chakka tree, the Wild Jack Fruit of Kerala. One evening before departing India, Ann went up to the terrace to take a good look at all the trees, to thank them and bid them farewell. "My eyes gaze toward the beloved Anjili tree, my eyes were fixed on it, I wondered what it would tell me if I could speak with it, I hoped that it felt my love. Suddenly, I found myself in tears, it felt as though the tree was bidding me farewell too, somehow I knew I would never see it again." A few months later, her family informed her that they would be cutting down the tree as it would fetch a couple thousand dollars as lumber.

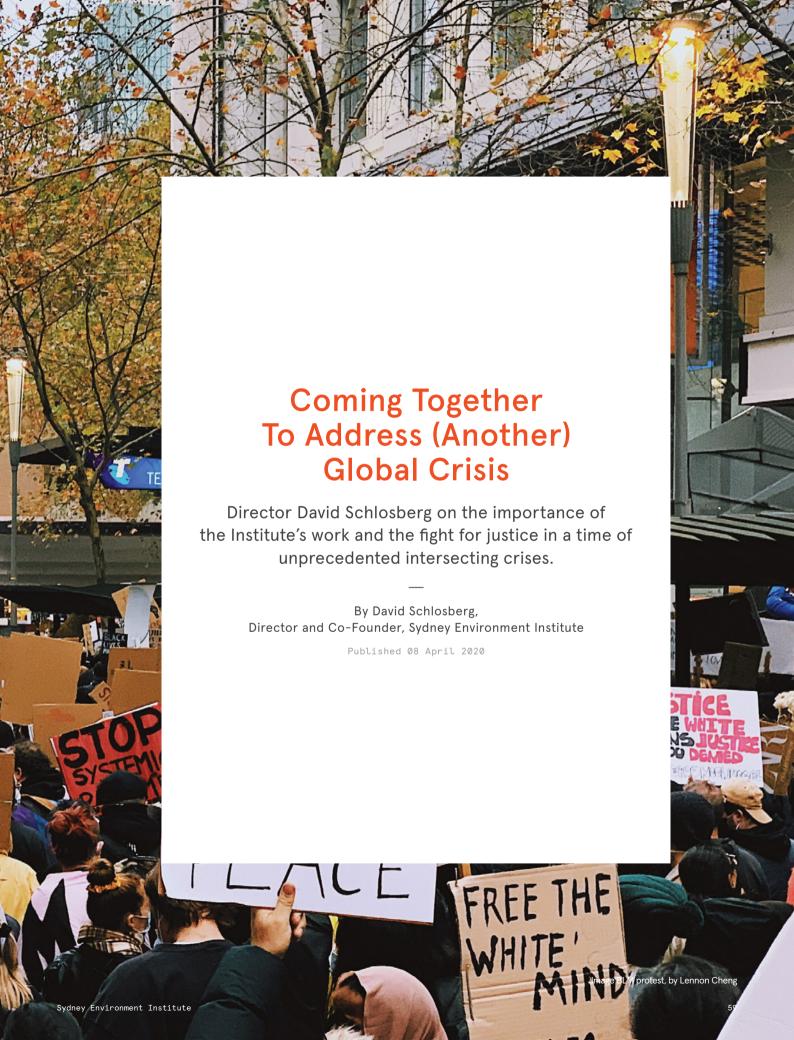
Perhaps it is a blessing that trees don't speak human languages. Our collective use and skills of linear language systems may not have the capacity or depth needed to hold the information/poetry/story of a single tree, let alone an entire forest. Those of us who perceive beyond language and who study trees may be able to say more, but it may only be one leaf from an unwritten book about a tree. The Trees Project is a humble attempt to express some broken perceptions and assumptions about a few trees in Afghanistan.

The lockdown across the world has made us still, within the parameters of our chosen walls. What many of us went through in 2020 looked like complete destruction but it was in fact complete transformation. We look toward trees as an example of how to live in a time that seems so chaotic. Let's conclude with a quote borrowed from Hermann Hesse's 100-Year-Old Love Letter to Trees: "In their highest boughs the world rustles, their roots rest in infinity; but they do not lose themselves there, they struggle with all the force of their lives for one thing only: to fulfill themselves according to their own laws... to represent themselves. Nothing is holier, nothing is more exemplary than a beautiful, strong tree."

Ann Raj is an international development professional with one foot in the environment and the other in art. She grew up in different cities across India, she left the country at 21 to pursue a Bachelors in Environmental Studies and a Masters in Geographic Information Science for Development and Environment.

Diana Chester is an inter-disciplinary multimedia artist and Digital Media Scholar. Her work draws from sound studies, archival studies, and the ethnographic study of expressive culture in religious festivals and traditions. Her work interacts with the spaces in which they inhabit, which help to inform the physical and theoretical framing of her pieces. Chester is fascinated by patterns in sound and the relationship in the formal qualities of different mediums. This gives organization to her work and informs her compositional approach. She is the recent recipient of the NMEMNM Digital Residency for Music and Sound Cultures and is a visiting scholar at TISCH School of the Arts at New York University. Diana is the Research Lead on Stories of Kabul Through Its Trees and Pandemic Resonance and Indigenous Vibrations.





"The Institute was founded on the very premise of exploring the reality of environmental conditions and experiences, and the disconnect between environmental impacts and the social, cultural, and political filters between knowledge and action. With the events over the past few months, our work has become more relevant, more crucial, more necessary and more urgent than ever before."

David Schlosberg

Published 08 April 2020

It is truly amazing how quickly our worlds can change – and just as astonishing that, in Australia, we have experienced two such globally significant events in just the last few months. Both the bushfires and the COVID-19 pandemic were shocking and unprecedented, with just as shocking and unprecedented impacts on our everyday lives. And yet, the most surprising thing is how surprising they seem, because both events were fully predicted.

Climate scientists and infectious disease specialists have been warning us about these events for decades. Models were built, and plans for mitigation, adaptation, and emergency response were developed. But there has been a clear disconnect between that expertise, the very real social and cultural impacts of their predictions, and the policymaking and governance required to mitigate and respond. In both areas, dire potential realities were ignored, denied, and/or underfunded.

As Arundhati Roy has recently written about the virus, "The tragedy is immediate, real, epic and unfolding before our eyes. But it isn't new. It is the wreckage of a train that has been careening down the track for years". The work of SEI mirrors that metaphor. We consistently address these trains, the careening, and the tracks that lead to these tragedies. The Institute was founded on the very premise of exploring the reality of environmental conditions and experiences, and the disconnect between environmental impacts and the social, cultural, and political filters between knowledge and action. With the events over the past few months, our work has become more relevant, more crucial, more necessary and more urgent than ever before.

There are many overlaps between this viral outbreak and SEI's work on the environmental crisis. For example, one of our constant focusses has been on the inequities of environmental impacts, and the reality that such pre-existing inequalities and vulnerabilities make people more susceptible to climate change - for example, in the way that heatwaves only kill those that cannot afford air conditioning. COVID-19 is all-tooclearly demonstrating the impact of inequity. In the US, virus deaths are disproportionately impacting African-American communities - the same communities consistently harmed by environmental injustice. Similarly, as Roy's article on India illustrated, we will see that pattern repeated on a global scale, as the virus expands in countries with even less of a capacity to care for the infected.

There is also a parallel with the focus on debates about individual vs governmental responsibilities, while clearly, these issues demand a rethinking of entire systems - the energy system on the one hand, and social support systems on the other. The virus is demonstrating one thing that disaster, resilience, and adaptation researchers have long pointed out - the crucial value of social engagement and mutual aid in responding to such events. And it illustrates what environmental humanities scholars have addressed the significance of loss and of changes that undermine cultural understandings and practice. Finally, while many have been writing about the impacts the fires and virus will have on how we reconstruct the social contract and the economy in the coming years, it is crucial that we also re-write the relationship between human and nonhuman, social and ecological systems. Both crises exist at this intersection - again, a place where the work of SEI researchers sit. At the same time, we must also remain vigilant against those that will take advantage of the current crises and push more devastation - by approving new environmentally damaging projects such as coal mining under the Sydney water catchment, and suspending enforcement of environmental laws as the US has done.

What we are doing

At the end of 2019, the Sydney Environment Institute had begun planning a set of events focussing on climate impacts and public policy. And then the fires hit, and we planned additional set of events specifically focused on fire, community impacts, and recovery. And then the virus hit, and all of SEI's events – the very engaged, social, and public gatherings of academics, NGOs, social and cultural leaders, policymakers, and community members – were shelved. Our most important approach, our main methodology, pulling people together in a room, for now, has been locked down.

Our phenomenal researchers have all been working tirelessly across a range of disciplines to help shed light on these issues from all angles and to bring justice to the forefront of planning for the future. Our internal SEI team, led by Deputy Director Michelle St Anne, has worked tirelessly to develop and communicate this work across a variety of new platforms. We launched a video/vlog series, a longform article series to introduce a range of scholars and topics, and this magazine collected the best of our opinion series exploring the relationship between environment and virus. We have also been working to make all of our existing content easier to access, with an update of our website. Our full range of multidisciplinary projects have continued in various forms, and indeed this year has opened up unprecedented new opportunities for collaboration and communication in the digital realm.

From all of us at SEI, take care, stay safe, stay home – and stay connected. This year has been a curveball to say the least, but we are more than capable of rebuilding this devastated world, together.

2020

Issue 5: Confronting Crises

2019

Issue 4: The Multispecies Justice Collection

2019

Issue 3: Voicing Community







2018

Issue 2: The Great Barrier Reef Collection

2018

Issue 1: The Environmental Justice Collection

2018

Special Issue: The Anastasia Project







This collection is available for free download alongside our other publications on the Sydney Environment Institute website. Please see the digital copy to access active hyperlinks where text appears with an <u>underline</u>.

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SEI Magazine

The SEI Magazine is produced by the Sydney Environment Institute, at the University of Sydney, on the Gadigal lands of the Eora Nation. We pay our deepest respects to elders, caretakers and custodians past, present and emerging, here in Eora and beyond.

The magazine collates cross disciplinary responses to the critical environmental issues facing us today.

Contributions come from students, artists, scholars and activists, working locally and across the globe, to investigate the physical, social and cultural dimensions of climate change impacts.

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