



UNZ Briefing Note

Grasping opportunity: Looking for a green restart

The Level 4 lockdown earlier this year provided a glimpse of a quieter life, of possibilities for living more sustainably in the future, and reminded us we are part of a world facing many crises. It also came at huge economic and social cost to New Zealand, with government support packages needed to insulate many in the workforce from unemployment or lost income.

In the wake of that initial COVID-19 shock, Universities New Zealand has asked academics around the country how communities, businesses and individuals can best face up to this new global nightmare and how they can grasp the nettle and turn the pandemic slowdown into opportunities.

This Briefing Note discusses the need for a "green restart".

This would involve the country striking off in new, bold directions that set it up well for the future by using resources sustainably, cutting greenhouse gas emissions, protecting the environment and overseeing a socially just recovery.

Unique opportunity

Te Herenga Waka – Victoria University of Wellington public policy expert Professor Jonathan Boston says there is a "unique opportunity" for government to pursue that greener future, "through large-scale investments in clean energy sources, energy efficiency, waste-reduction technologies, climate-resilient infrastructure, regenerative agriculture and biodiversity protection".

"This has given us an opportunity but we don't want to squander it.

"Globally, we have a series of ecological crises of a serious and urgent nature. There is accelerating biodiversity loss—more and more species and ecosystems are under threat from a variety of forces, including urbanisation, poor land management, deforestation and climate change.

These Briefing Notes have been produced as part of a series of initiatives to connect academic expertise to policy makers. They provide perspectives from leading New Zealand university academics on topics relevant to New Zealand as it navigates the Covid-19 period. The views of academics quoted are their own and do not necessarily reflect UNZ's position. If you would like more information from the academics quoted, contact information is provided on the last page.



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"Then you have climate change as a separate but big issue. Then pollution—plastic pollution but also multiple other forms of environmental degradation, the pollution of soils, freshwater, air and marine resources.

"Covid-19 has helped remind people, particularly in the lockdown periods, that we live in a world of nature, and nature has come back in some cases, or been more visible or audible than it would have been because of the reduction in aircraft noise, traffic noise and congestion."

Radical technological innovation needed

To have a reasonable chance of avoiding 1.5degC of warming by the end of the century, the scientific community says we must reduce carbon dioxide emissions globally by about 45% by 2030, relative to 2010 levels, and then move to net-zero emissions by the middle of the century.

"That implies a reduction rate of around 7% per annum. For New Zealand to make a fair contribution to that 45% figure, we would be needing to reduce our emissions by more than that and therefore higher than 7%. Even 7% would be a massive reduction.

"Say this year we managed to reduce by approximately 7%, that would be achieved at enormous economic and social cost. To achieve another 7% and another 7% and another, for the next nine years, well we can't do it by massive economic and social harm—we can only do it through radical, technological innovation.

"Basically we need to decarbonise the global carbon systems, both stationary and transport energy, which means relying much more heavily on renewable sources for electricity and reducing industry's use of fossil fuels in big factories, and then electrify the light-vehicle fleet and then the heavy-vehicle fleet.

"We are already about 80% reliant on renewable sources for electricity but have made so little progress in electrifying the light-vehicle fleet. At the moment we have around 20,000 electric cars in the country in a vehicle fleet of well over four million. We are not even at 1% yet.

"We would need to be saying to people, you can only buy electric vehicles from 2021-22 on, in order to get even to 50% electric vehicles by 2030. We are miles away from debating that, let alone doing it.

"Lots of people just don't understand the urgency of these issues and the need to make changes. Every day on television, I see these advertisements for these massive SUVs which churn through fossil fuels, and every one of those vehicles that is bought will potentially be on the road for 20 years.

"I just don't think people have any idea what they are doing. We are running out of time. The politicians aren't much talking about it, with the exception of the Greens, and they are not much heard."

Government must sponsor change

Professor Boston says this is the time for government to sponsor major changes to our modes of transport, to strongly encourage public transport, light rail and rail, walking, cycling and car-pooling.

A 'feebate scheme'—scuppered by NZ First recently—is essential to subsidise low-emission electric vehicles and plug-in hybrids.



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"It would be on a sliding scale and penalise, in effect tax, high-emission vehicles. It would incentivise and deincentivise consumer choices and, if you design it well, can be fiscally neutral. That would alter the relative prices significantly, which would alter the pattern of consumption of vehicles.

"Norway has put in a raft of incentives, and now at least 50% of all new vehicles are electric or plug-in hybrids. They've really gone to town—and like New Zealand they have a really heavy reliance on renewable energy for electricity."

A public information campaign about climate change Professor Boston proposed earlier this year was turned down by the Government, which said there was no money for it in the 2020 Budget.

"But within four weeks of that, they had announced new fiscal measures of tens of billions for COVID-19.

"I have no qualms as a citizen about the Government spending money to protect lives. With climate change, the bottom line is we are seeking to save lives in the future and to save multiple species at risk.

"The only difference is time. COVID-19 is upfront now and immedate; with climate change it's longer-term, over there and not now. But morally the imperatives are the same.

"COVID-19 highlights how governments can use the power of the state to inform people of the nature of risk and the actions required to reduce risk. That is what we need to be doing with climate change, and all the other ecological issues.

"My fear is, without serious and comprehensive policy measurements by governments, not just here, for many people it will be back to normal."

Great opportunity

AUT social science and public policy lecturer Dr David Hall agrees.

"COVID has created a great opportunity. It has broken open the status quo and provided chances to question whether our infrastructure is as it should be. At the bare minimum we should make sure that new infrastructure investment doesn't reproduce the risks of future crises, whether future pandemics or climate-related shocks.

"Our 'business as usual' model was highly exposed to risks we had been underestimating. That is one affinity between COVID and the climate crisis. So we should be looking at our economic, transport and energy systems, we should be testing whether they leave us exposed to future shocks, and indeed whether they contribute to additional risks.

"High-emissions infrastructure obviously contributes to climate risk, but we should also keep in mind that land-use change, biodiversity loss and wildlife trafficking are all contributing factors to risk of pandemics. It all increases the chance that a novel virus will jump from animals to humans."

So much depends on the infrastructure already in place, Dr Hall says.

"Any opportunity to transform that infrastructure, to substitute high-emissions infrastructure with cleaner alternatives, is one we must seize. We may not get another chance like this.

"COVID shows that, when the situation demands it, the government can really turn on the head of a pin. The GDP-oriented economy at one moment is sacrosanct,



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then the next moment it is almost frozen still.

"To protect people's wellbeing and security, the state is still prepared to intervene in ways we have not often seen in the last few decades. I don't think people will soon forget that, and in the politics of coming years we may see people expecting the government to act with similar decisiveness in other policy areas. And that comes with risks as well as opportunities."

Dr Hall has recently focused on changes that the financial system can make to enable the shift to a low-emissions economy.

He sits on the Technical Working Group of Aotearoa Circle's Sustainable Finance Forum, which explores how the financial system might avoid investing into harmful activities, and might improve its environmental, social and financial impacts. He also launched the Climate Innovation Lab, a partnership between ANZ and AUT, which explores novel instruments for funding and financing climate-aligned outcomes

From a responsible investment perspective, the Government has done okay on the "do no harm" side of the equation, he says.

"Not too much investment has gone into projects that are exposed to climate-related risks. On the 'do good' side, however, there isn't much in the way of transformational investment —the sorts of pivotal, game-changing investments that might really turn the dial.

"What the Government really needs to do is make real its wellbeing agenda. There are some recovery investments that strongly support this—the apprenticeships and jobs-for-nature programmes come to mind.

"But to prepare New Zealand society for the bumpy decades ahead, we need some big pivots in areas like clean energy and sustainable land use, and also to address inequality and system resilience," Dr Hall says.

Finance, investment indistry reform needed

Massey University's Professor Robert McLachlan, Distinguished Professor in the School of Fundamental Sciences, says reform of the finance and investment industry is often included in proposals for a "Green New Deal".

"Our government investments—including ACC, the Superannuation Fund, government pension funds and default KiwiSaver funds, together totalling around \$100 billion—should follow the Norwegian model of an independent 'Council of Ethics' that establishes general principles and advises on the ethics of specific investments. In 2019 they divested from fossil fuels."

All major sections of the economy, especially transport, electricity, and process heating, need to be on a pathway towards substantially reduced emissions by the end of this decade, Professor McLachlan says.

"After the global financial crisis in 2008, emissions temporarily reduced. This led to a slackening of effort and a severe undermining of carbon-pricing mechanisms. This time we should make sure that COVID-19 provides an opportunity to strengthen, not weaken, our climate ambition.

"A green recovery should include scaling up the Green Investment Fund and the Low-Emission Vehicle Fund, comprehensive upgrading of the housing stock,



It's crunch time. We have a decade or so to make fundamental changes to what we produce and consume, otherwise we are creating an appalling future for our children and grandchildren kick-starting the domestic solar industry, and an end to new fossil-fuelled heat in buildings and industry.

"On transport it could include a rapid roll-out of electric buses, an expansion of funding for walking and cycling, and an overall programme to reduce total travel by fossil-fuelled vehicles. Any bailouts of high-emission industries, such as airlines and airports, should include requirements to progressively reduce emissions."

Professor McLachlan compares New Zealand's efforts with those of the two-month-old three-party coalition government of Ireland, which has written a 126-page Programme for Government national action plan, the first that gets anywhere near what the Paris Agreement requires.

"It includes emission cuts of 7% per year, halving emissions by 2030; ring-fencing 20% of the transport budget for walking and cycling; and very high-quality thermal upgrades to 500,000 houses by 2030.

"In comparison, in New Zealand walking and cycling get 2% of the transport budget, and the 'Warmer Kiwi Homes' programme, which received extra funding in the COVID-19 Recovery Fund, upgrades 10,000 houses a year."

Fundamental re-set required

The Director of the University of Otago's Centre for Sustainability, Dr Janet Stephenson, says there is wide recognition this is a challenging time but also a "big chance to kick-start a shift to a sustainable future".

"I'm not sure that 'green recovery' is the right term, as it suggests we're going to get back to something like business-as-usual, but just greener. What is needed is more of a fundamental re-set—a new economic model that supports environmental and social wellbeing.

"It's crunch time. We have a decade or so to make fundamental changes to what we produce and consume, otherwise we are creating an appalling future for our children and grandchildren.

"We have to get used to the idea that we've reached 'peak wealth' in financial terms. We can't expect to keep growing our consumption and its waste products. Ultimately social wellbeing is dependent on healthy natural systems, and that will require working out how to live well with less."

While COVID-19 is having immediate impacts on communities and businesses, longer-term impacts of climate change will be far more devastating if they are not turned around, she says.

"Despite global and national commitments to reducing greenhouse gas emissions, the world is still tracking along the IPCC's worst-case emissions trajectory.

"All decisions, whether by households, businesses or institutions, need to be guided by long-term priorities of radically reducing greenhouse gas emissions, preparing for climate-change impacts, and restoring the vitality of ecosystems. At the same time we need to be reducing disadvantage, improving health, and building sustainable businesses.

"And these thing have to occur while we are in a prolonged recession. Being smart, innovative, and focusing on solutions with multiple benefits are really critical.

"There is a lot of interest in the private sector in the 'circular economy'. This



All this calls for a culture shift

- changes in rules, practices, values, and ways of doing things

means getting away from the linear model of extracting resources, developing products, using them and then throwing them away.

"Instead, with a circular economy you're minimising the environmental costs of your goods and services. You use raw materials sparingly. You make products that last longer and can be fixed or returned. You re-purpose waste back into your product cycles. You regenerate natural systems rather than deplete them."

New Zealand especially needs to do much better in housing and transport, Dr Stephenson says.

"Retrofitting houses so they need almost no energy to heat, and retain their warmth, has massive benefits for health and wellbeing, reduces household bills, and reduces the need for new power stations to meet peak demand in winter.

"Our current insulation programme is a good step, but it is a drop in the bucket compared to what's possible. For example the European Union has standards that now require all buildings to be near-zero energy by 2040.

"Another example is making it easy for people to choose low-carbon transport. If you don't have good-quality, convenient and affordable public transport, or safe cycling and walking, you can't expect to get people out of their cars. If the up-front cost of electric vehicles is a barrier even though the running cost is very cheap, then reduce the up-front cost with a feebate scheme."

Extraordinary opportunity

The University of Waikato's Professor Priya Kurian, Professor of Political Science and Public Policy, says the pandemic offers an "extraordinary opportunity" for a green and socially just recovery and a regenerative economy.

"COVID-19 lockdowns have shown us what going carless looks like – cleaner air, blue skies and safer streets. This is a moment to reclaim city streets and roads back from the current dominance of cars.

"Turning our streets and roads into mixed-use public spaces that are shared by pedestrians, cyclists, and families, while building green spaces and strong public transportation networks, will help transform our urban spaces. This does not mean eliminating cars for those who need them, but it will mean turning our urban planning and investment in services away from cars.

"Barcelona, for example, has been implementing a radical vision of turning over a majority of the central road/street space in many neighbourhoods for public use, while cars flank this central space in narrow lanes on either side.

"Reclaiming our streets and roads – and therefore our neighbourhoods and suburbs – means transforming urban centres and keeping climate change, public health and sustainable communities at the centre of a green recovery.

"Electric vehicles are not an answer in themselves – drastically reducing car use is. And we need reliable and fast train links between towns and cities – the better the service, the more cars we get off the roads.

"All this calls for a culture shift – changes in rules, practices, values, and ways of doing things. Our high-carbon lifestyles and economies are embedded in our understandings of what is normal and desirable.

"Shifting these won't be easy. But good political leadership, a meaningful



commitment to Treaty partnership, and equitable public engagement offer a pathway to a low-carbon society."

The idea of nature-based jobs is well worth reinforcing, she says.

"At a time when the largest foreign exchange earner for New Zealand - the tourism sector – has collapsed, putting tens of thousands of people out of jobs, we need to invest heavily in green jobs.

"Creating a billion-dollar investment fund that focuses specifically on ecological restoration across the country will re-charge the economy with the jobs that it creates, while marshalling a much-needed workforce to work on restoring our native bush, rivers, coasts and beaches.

"We need to be able to hear birdsong again in our urban spaces, protect our threatened biodiversity and, in the process of such restoration, we create new places for domestic tourism to flourish."

Contact details

- » Professor Jonathan Boston: Te Herenga Waka Victoria University of Wellington, Chair of the School of Government; 04 463 5456, 027 563 5456; jonathan.boston@vuw.ac.nz
- » Dr David Hall: AUT, Lecturer, The Policy Observatory; 09 921 9999 ext 8455, 022 059 8616; david.hall@aut.ac.nz
- » Professor Robert McLachlan: Massey University, Distinguished Professor in the School of Fundamental Sciences; 06 951 7652; r.mclachlan@massey. ac.nz
- » Dr Janet Stephenson: University of Otago, Director of the Centre for Sustainability; 03 479 8779; janet.stephenson@otago.ac.nz
- » Professor Priya Kurian: University of Waikato, Professor of Political Science and Public Policy; 07 837 9319; priya.kurian@waikato.ac.nz