



## Environment and economics: A marriage of (in)convenience?

**E ngā mana, e ngā reo, e rau rangatira mā, tēnā koutou. Ki a koutou hoki ngā Tira Taiao e mahi ana ki te tiaki i te whenua me te moana, tēnā koutou.**

Environmentalists are very good at pointing out inconvenient truths. They supply a sort of portable plug-in conscience for a society that is only too happy to overlook accumulating environmental pressures in favour of making hay in the short term. They upend John Maynard Keynes' famous observation that "the long run is a misleading guide to current affairs. In the long run we are all dead." Environmentalists insist that current affairs provide an excellent guide to where we will end up if we don't change course.

But I didn't come here today to talk about what a wonderful job environmentalists do. There is a danger that we all get into a bubble of clear-sighted, righteous agreement that if only other people had sufficient political will and shared our views, we'd be well on our way to the promised land. I'd prefer, instead, to turn the spotlight back on ourselves and address some of the economic elephants in the room that make environmentalism so much harder than a few slogans can make it seem.

Let me go back to Keynes. He has been hammered for the alleged short-termism of his 'in the long run we are all dead' verdict. Not many people can quote the line that followed. Here it is: "Economists," he said, "set themselves too easy, too useless a task, if in tempestuous seasons they can only tell us that when the storm is long past, the ocean is flat again." Let me paraphrase that by asking if environmentalists don't set themselves too easy a task if they can only tell us that a storm awaits us.

I'd like to draw on what economists have to offer to point out some inconvenient truths to environmentalists, myself included. There are five. Facing up to them involves some hard thinking about the sort of economy we want to have and the trade-offs that can't be wished away.

Let's start with inconvenient truth number one. We can close polluting industries, but in most cases we will simply import the goods that rely on them from other countries. It is relatively easy to suggest that we shun or close polluting industries. But the reality is that unless we are willing to put an equal focus on working out how to get consumers to stop consuming, demand for the output of those industries will continue to exist.

This will push someone somewhere to pollute in order to meet that demand. Some very attractive, cool products rely on that pollution. Telling consumers they can't have stuff is an altogether more difficult conversation to have. But the fact is that without attending to the demand side, closing down polluting industries simply outsources our pollution to the world at large where standards may well be lower.

I have a major new project underway that aims to define the claims that New Zealand's economy makes on the world's resources and the pollution that is produced as a by-product – here and overseas. We will look at how those claims will shift as we transition to renewable energy. My aim is to transparently display the scale of the challenge posed by aspirational goals like zero waste and a circular economy.

It is too soon to draw conclusions from this work but as usual there are gaping data gaps. If we are serious about these issues, we must be able to measure our progress. One good example is material productivity – how much value we can extract from a given resource. Given that we are a biological economy, the lack of data we have on the claims agriculture makes on soil and water is truly disturbing.

Inconvenient truth number two. Under certain conditions, we must be willing to entertain environmentally damaging activities like mining or the provision of infrastructure. The question is: how much damage? If we are not prepared to examine trade-offs critically, we will be dismissed as the dog that barks at every passing car.

Mining is an example that has been thrown into sharp relief by the new government. Many environmentalists oppose extractive industries. That's understandable with fossil fuels – we simply can't go on using them and in any case we have increasingly affordable alternatives. But even as we transition to zero emissions energy, our demands for some metals will continue to increase, in part to provide the materials for batteries, wind turbines and solar panels. The metals have to come from somewhere.

The recently released draft minerals strategy makes the point that mining is a necessary part of the sort of economy and society most people want, including the clean energy transition.<sup>1</sup> I don't disagree with that. The question for debate is, on what terms? Provided that none of the environmental losses take us past irreversible tipping points (and extinction, by the way, is pretty irreversible), it is a question of weighing up the environmental degradation caused against the value of the minerals gained.

The tool economists propose to address this dilemma is capitalising the value of ecosystem services into an estimate of natural capital that can then be included in a cost benefit analysis of projects such as new mining activities.

A lot of people are uncomfortable with this idea. They associate it with people who claim to know the price of everything and the value of nothing. I must confess that I have never found that artificially generated monetary values are game changers. But without some sort of rigorous process for making ourselves confront trade-offs, those who claim the right to make the trade-offs escape scrutiny. Where public resources are at stake, decisions about how costs and benefits are weighed must be open to examination. I was pleased to hear Shane Jones endorse the importance of cost benefit analysis this morning. Of course, everything depends on how you value the environment and the time horizon you're talking about.

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<sup>1</sup> See <https://www.mbie.govt.nz/have-your-say/proposed-minerals-strategy-to-2040>.

Let's get down to brass tacks. Or maybe gold ones. The draft minerals strategy has plenty to say about rare earth minerals. But the reality of New Zealand's geology is that if new mines are opened, gold and coal will likely make up the majority. Given prices, mining coal for energy is very unlikely to meet any reasonable test of economic benefit versus environmental damage. Depending on the ecosystem, gold mines are more likely to meet that test. The difficult line to draw would be around the higher value of coking coal which is still needed for steel making. We use plenty of steel. Whether coking coal could pass an arms-length cost benefit test would depend very much on the details of the proposal.

If a government wants to bolster the benefits side of the ledger, I would suggest we need to look at increasing the royalties that the Government charges mining companies on the public's behalf. Royalties should represent public compensation for the loss of a non-renewable public resource.

This must not be confused with the profits and jobs mining may offer. These are largely private benefits that will cease when the resource is exhausted. But New Zealanders will live with whatever has been lost forever. Substituting minerals in the ground for royalties and an ongoing stream of environmental damage has to be worth it not just in the short run but – and here I agree with Keynes' critics – in the long run as well because we may be dead, but our children and grandchildren won't be. That's why we need transparency about the methodologies that are used to make decisions.

My third inconvenient truth is that calling for green growth – something I spent seven years working on at the OECD – isn't the easy economic and environmental win some people imagine. As a student I was right behind the campaign to stop the harvesting of virgin native rainforests, especially on the West Coast of Te Waipounamu. Without much in the way of analysis to support the claim, we all happily asserted that the value of the ecosystems would be much greater if preserved for tourism.

I still feel that's intuitively right, but we now know that tourism is by no means environmentally benign. We face the same dilemmas now as we transition to renewable energy. While renewable electricity is usually far more efficient and therefore less damaging than fossil fuels, some ecosystems will be damaged by renewable energy and transmission infrastructure. The green growth vision of the future will continually trade one environmental issue for the next. We can't escape that.

The fourth inconvenient truth is that any change – even a clean green one – is costly. Green growth is pitched as a win-win all round, it is a very convenient line that people love to come up with but even when that is true economically and environmentally, there are usually losers socially. All politics is distributional and green politics more distributional than most. Talk about just transitions tends to be cheap.

Some examples of this can be found in my most recent report *Going with the grain*.<sup>2</sup> Studies have repeatedly shown that on-farm efficiency gains could improve environmental outcomes by 10–20%, while improving profit at the same time. The Austrian economist, Joseph Schumpeter,

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<sup>2</sup> See <https://pce.parliament.nz/publications/going-with-the-grain-changing-land-uses-to-fit-a-changing-landscape>.

called the process whereby some took advantage of these opportunities “creative destruction”. Less efficient operators exit an industry and more efficient operators take over their resources, making everyone better off. Except that it doesn’t always work out that way – profitable green gains go begging and the environment goes on subsidising the industry.

Why? One reason is that not all farmers have the skills to go after them. And farming lobbies – like all lobbies – move at the pace of their slowest members. So the political economy of change is led from the back, not the leading edge. Environmentalists have to be conscious of the social impacts of these sorts of transitions. That is why, in *Going with the grain* I argued for involving directly affected communities in the process of owning the problem and finding solutions.

Farmers complain about green tape. I have some sympathy for that. Our environmental regulations can be unnecessarily complex. Well-designed regulation should help any industry become and stay world leading. In *Going with the grain*, I’ve tried to make some recommendations about how we might simplify regulation and drive it more from the bottom up but without watering down environmental standards. Meeting environmental standards cannot be optional. But neither do the means of achieving them need to be monolithic, if only because no two catchments are the same physically or socially.

We all need to accept the fact that there are fewer and fewer free lunches to be had from degrading the environment for economic gain. But paying for our lunches will be costly and we cannot assume there will be an automatic ‘just transition’. It will require a sustained investment in skills and improved productivity if people are going to be able to maintain the living standards they previously enjoyed, in part at the expense of the environment.

Some would go further and argue, as Mike Joy did last night, for degrowth. My fifth inconvenient truth is that degrowth won’t be an easy sell either. When asked what a degrowth world would be like, he recalled the world at the end of the first week of the Covid lockdown. You may also recall the world after a year of lockdowns. As a student of human nature my hunch is that if we tell people that they can’t have the stuff they’ve grown to expect, they will turn to thinking about how they can take it from others. That’s potentially a recipe for conflict.

Barring some spiritual awakening that causes us to all rally around Papatūānuku, the reality is that we are likely to continue to worship at the church of consumption for some time yet.

Many of you will find my comments rather unsettling. But if you accept these inconvenient truths as a description of the world as it is for many people rather than the world we would like it to be, then I think we have to be prepared to engage in a conversation about what kind of economy we want. If we want to avoid the dirty growth on offer from doubling mining or agricultural exports, then we have to say how else we will maintain our living standards.

So let me devote the balance of my comments to how an economy that continues to hold back environmental progress could become one that doesn’t.

First, we need innovation and a focus on increasing value, not producing more.

Economies can grow by ‘working harder’. This has been the main driver of growth in New Zealand over recent decades – importing more people, working longer hours, using land more intensively. We know the outcome.

Another option is working smarter. In other words, seeking productivity growth. Here our record is dismal to say the least. Yet this is where something closer to what we can call 'green growth' happens.

Resources are limited. Time is limited. But our capacity for innovation is unlimited. This is where we need to focus.

Unlike most small advanced economies, New Zealand has no companies in the Forbes 2000 list of top global firms. These tend to be firms that support much higher research and development spending, create and export value-added products, and ultimately support prosperous domestic economies. These large companies act as anchors for successful local industries.

Few of our biggest firms export at all. Those that do are exporting our natural resources (I include tourism in that). If that continues, we are always going to risk needing to extract more and more from the environment.

It doesn't have to be this way. Kiwis concerned about the environment or social services often point to the goals and investments made in them by Scandinavian countries. Less time is spent talking about the economic policies that generate the wealth that allows them to invest in those goals. But they, like Singapore, are nothing if not hard-headed. Small advanced economies like these realise they are doomed to choose when it comes to innovation and infrastructure investments.

Growing businesses will appear and stay in a place if the human and financial ecosystem is attractive. That includes the presence of global firms and world class infrastructure, research and skills. Small economies can't create ecosystems like this in every economic sector, so they have to choose. Usually, it is around their existing or potential global firms.

One way to do that is to focus on services that make little call on natural resources. For example, the potential for a global software-as-a-service company like Xero to grow in a global market is essentially unlimited. But as a nation, we haven't seized the opportunity to ply businesses like this with as many skilled workers as we can muster. Xero, like others before it, has progressively shifted its operations overseas in search of the skills and capital it needs to grow.

Meanwhile, Fonterra is on the verge of relinquishing its consumer brands. Yet the whole rationale for seeking the privilege of legislation to allow this giant to come into existence was the need for a global company capable of reaching global consumers and creating innovative value added. Instead we seem to be rowing back into the past.

Now focusing on services that don't make a big call on natural resources doesn't mean ignoring the biological economy. New Zealand tells everyone that it leads the world in farming. If that is so, it makes sense to leverage that for research and new opportunities into adding more value to what the land produces. And that includes reducing the environmental impact of farming systems. In a climatically disrupted world with fraying ecosystems, transforming and securing the way we produce food has to be a winner.

But is that where we spend our money? In *Going with the grain* I found that the Government spends almost \$700 million a year helping our primary industries, but about half of that goes on subsidies to help reduce environmental impacts rather than transformative investments in completely different systems.

We don't do much better with research. Instead of playing a long game, we seem to have short attention spans and fail to capitalise on real progress when it is made. The National Science Challenge on the environmental impacts of farming – *Our Land and Water* – is one such example. After ten years of really good work, that challenge will wind up any minute now without any follow through.

The only related investment I'm aware of in something potentially transformative is the \$400 million allocated to the search for technologies that can reduce methane emissions from the livestock industry. It's an investment that has pulled in significant chunks of industry money. But will it continue? The Government's investment commitment is for four years. But this isn't a four-year game.

Using the land profitably and sustainably is going to be a permanent challenge. Anyone who says we shouldn't pick winners needs to wake up and smell the cowshed. We have a huge Ministry for Primary Industries. We need to be honest about it: we are already picking winners. I have no problem with that provided it isn't spent perpetuating the status quo.

New Zealand could be leading the world on monitoring and modelling the environmental impact of land use; by applying our intellect to how we might do things differently on the land. But without a long-term commitment to bring research, business and finance together with this specific priority in mind, we won't build the critical mass needed to change the game.

My second point is that we need to ensure the value of the environment is recognised and not drowned out by the narrative of traditional economic value. To do that, environmental value and economic value need to be brought onto the same playing field. In *Going with the grain*, I suggested increasing payments to landowners for ecosystem services over time. Biodiversity credits are a good example, provided they can be made to work. The big question is where the money should come from. The logical answer is by increasing levels of environmental taxation over time. For those of you worried about productivity gains being gobbled up in higher consumption, this is how we can ensure that some of them are reinvested into improving the environment. New Zealand has low levels of environmental taxation by international standards.

Despite apparent cuts to many areas of environmental spending, I'm heartened that the new Government has continued the previous Government's commitment to increasing some environmental taxes. The waste levy has risen and fuel levies and road user charges will follow. The price effect of these changes should not be underestimated. Congestion charging now looks to be on the cards with cross-party support. Road user charges that reflect the true capital and maintenance cost of heavy freight on our roads would help mode shift.

There are concerns about the distributional impacts of these sorts of user pays models. But work by the Infrastructure Commission shows that the distributional impacts of just about any other ways of financing infrastructure are worse in the long term. We face massive

environmental challenges. Change will be costly. It requires investment, it requires skills, and it requires prices on the bad things we don't want. The money has to come from somewhere.

If environmentalists are to lead from the front, we must be self-aware about the inconvenient truths that stop other people listening to us. We also need to listen to people we disagree with. In other words, we must start talking across the divides of urban and rural, Pākehā and Māori, or whatever other identity appeals to you, and find solutions that work on the ground and work for everyone.

Of one thing I am clear: we won't mobilise change in a polarised society. If you've stopped listening, you are halfway down the road to the polarised society that we have in the USA today. We have to resist allowing the environment to become a lightning rod for our economic and social failures. The environment isn't the problem. We are.