



## **Are environmental taxes the perfect solution that nobody wants?**

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I entitled this address *Are environmental taxes the perfect solution that nobody wants?* because it seems that, in New Zealand at least, we are very happy to prattle on about good environmental intentions but much less happy about shouldering the burden of doing something about them. And if we do, we seem to prefer to spend other people's money fixing the problem than facing the music ourselves. The fact that a good cost-benefit case can be made for using environmental taxes rarely seems psychologically persuasive.

I don't claim to be a psychologist. Putting a price on an environmental 'bad' seems threatening to some polluters. Maybe coming face to face with the sheer transparency of one's revealed pollution through charging might be embarrassing. Or maybe some polluters start from the ideological premise that all tax is theft and new taxes applied to emerging environmental problems are simply illegitimate from the get-go. That sort of ideological response can be countered by an equally ideological claim that no one has a right to pollute and that polluters should pay for the harm they impose on others.

But to be frank, most of us just seem to wobble around vaguely claiming that pollution is bad, and something should be done about it but expressing doubts about whether now is the moment and whether we can afford it. Kicking the can down the road is, in the short run, both cheap and politically palatable.

According to the Organisation for Economic Co-operation and Development, in 2021 New Zealand ranked thirtieth out of 38 countries in terms of use of environmental taxation at 1.12% of GDP. But even that is a definitional affair. The overwhelming majority of that taxation is related to fuel tax, road user charges and vehicle registration. For most New Zealanders, those charges are all to do with maintaining access to the movement of private vehicles on roads. And look at what happened when a perfect storm saw pump prices soar – fuel tax was halved to damp down the cost of living. We decided to borrow the short-fall and pass the costs on to future taxpayers.

The previous Government walked over broken glass to try to find a way of pricing agricultural emissions. On the one hand farmers fiercely opposed regulations. But faced with an environmental tax that left it up to them how to respond to the problem, that was all too hard as well. They managed to talk the Government into letting them have a go at designing an emissions pricing mechanism, as an alternative to going into the New Zealand Emissions Trading Scheme.

The result was a bizarre proposal which combined a tiny levy on emissions with payments for adopting new technologies and for on-farm vegetation planted since 2008. Dr Rod Carr described it as “a tax-like mechanism to fund a bureaucratic overhead to give some of it back as good behaviour grants”.<sup>1</sup>

The Government refused to accept the proposal in full, instead putting forward a slightly modified version. The sector did not accept these modifications, and the whole process collapsed.

It would be helpful for everyone if we could get a common understanding about when environmental taxes make sense. That means being clear about what we’re trying to achieve.

First, a general observation about taxes. Government has to raise taxes and in the process of doing so they will impose an element of deadweight loss to society because they result in people doing less of what is considered a good thing (like working or consuming). We generally accept that as the quid pro quo for the bundle of services we consider to be best supplied (or maybe only suppliable) by central government.

Taxes on environmental bads are unlikely to be a useful source of general revenue if the aim is truly to change behaviour. A successful tax will over time cannibalise the revenue stream it provides. Few taxes have that intention, however. Fuel excises are an example of a tax that can be claimed as mitigating activities that involve harm but because behaviour is relatively inelastic (i.e. unresponsive), the revenue base holds up. We can then have interminable debates about whether or not those doing the harm are adequately compensating society for the costs they impose – for instance respiratory disease caused by inhaling fine exhaust particulate.

But suppose we really were serious about trying to change behaviour and really generate environmental improvement? Taxes are good for reducing the bad thing at the margin. While demand is fairly unresponsive to fuel excise, there will be some response in miles travelled, speed etc. There *are* things people can do to limit the cost that has been imposed. But if we want to go beyond marginal change then the demand response from any sort of tax needs to be much greater to get us there. Carbon pricing is a good example. The emissions price would need to be exponentially high to get emissions to zero. This tells us that tax is necessary but not sufficient – we need to make sure there are affordable non-polluting alternatives to hand, which in turn makes demand more responsive to a tax. Either that or, at some stage, we need to start banning things.

The challenges governments face is that there’s a degree of chicken and egg. In the absence of a price signal that causes people to look round for alternatives, no one is going to bring them to the market. But if you press ahead with rising tax levels you may start to strand activities that can’t adapt fast enough. This has been the argument against methane levies – without technologies to reduce methane, farmers simply would have to reduce stock numbers. The transition in energy has been much more successful where a price on carbon and subsidies from Europe have combined with production economies of scale in China to make wind and solar cheaper than coal.

The previous Government’s Tax Working Group looked at environmental taxes and covered most of the issues that environmental tax design would need to grapple with. One would have to say that there is nothing new in this world, least of all taxes. The report’s observations could have been written 30 years ago. I do hope we don’t have another round a decade from now.

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<sup>1</sup> Dr Rod Carr, New Zealand Agricultural Climate Change Conference, 1 March 2023, Wellington.

The Working Group also identified three useful practical matters that need to be addressed by those keen to make the case for environmental taxes:

- Measurability – needs to be measured and attributed accurately to be taxed. As we will see later this is the problem with taxing things like nitrogen leaching.
- Risk tolerance – what is the risk of getting it wrong/ unintended consequences? A common example in the environmental space is fly tipping as the result of waste levies.
- Sufficient scale – is there enough of the bad thing to be bothered with the admin? For example, I've seen a study for Wellington that suggests we don't have the scale for congestion charging – it would be cheaper to use simpler approach such as a parking levy (a \$10 levy per park per day would be a lower cost way of achieving a similar outcome, raising \$26 million per annum).

The Tax Working Group rated the following environmental taxes in terms of these criteria. They ranked them as follows:

1. Increasing solid waste charges
2. Greenhouse gas emissions – auctioning units
3. Congestion charging
4. Water abstraction
5. Water pollution.

The first two have been partially picked up by the previous government – though not quite to the level recommended.

Longer term, the Tax Working Group raised the possibility of a natural capital enhancement tax – essentially a land tax adjusted for the intensity of land use. This would be revenue-neutral and provide tax relief for private land in native land cover. This concept was a merely an idea when first suggested but now technology has made it plausible. In my view this is a more useful way forward than all the current talk about biodiversity credits where nobody knows where the money will come from.

Let me quickly flick through those five possible environmental taxes the Working Group focused on.

## **Solid waste**<sup>2</sup>

- The previous Government decided to progressively increase the levy over four years from \$10 per tonne – set in 2009 – to \$60 per tonne as of July 2024.
- The risk is unintended consequences – in a large, sparsely populated country people have other choices (legal and otherwise) for where to take their waste.
- To manage this risk New Zealand is also expanding the waste levy to cover additional landfill types, including construction and demolition fills.
- By comparison the United Kingdom landfill tax is currently around £100 per tonne. This has been progressively raised over time, leading to 80% less waste going to landfill. Obviously, they have been using the price to reduce waste rather than raise revenue.
- The Achilles' heel in New Zealand has always been poor waste data. We are now hopefully collecting better data about the waste we are creating, and how we are disposing of it, so our waste can be better managed. It will be interesting to see the data showing the impact of the increases in the waste levy. This should have started years ago to give us a better baseline.

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<sup>2</sup> <https://environment.govt.nz/what-government-is-doing/areas-of-work/waste/waste-disposal-levy/expansion/>

- We are investing the additional revenue from the waste levy in initiatives that support waste reduction, such as building New Zealand-based recycling infrastructure.

The increases in the waste levy are projected to rise from \$30 million per annum (with a \$10 per tonne levy) to \$220–\$250 million in this financial year.

Summary: Watch this space to see what impact the levy increases have on waste to landfill. Based on the UK experience there is room for further increases once these changes bed down.

## Greenhouse gas emissions

The previous Government had made some strides on this by adjusting price controls and bringing in auctioning of credits. This has raised substantial revenue – \$1.15 billion in the calendar year 2021 and almost \$2 billion in 2022, although so far this year revenue has been zero.

A number of challenges remain:

- I have stated many times that I believe it is inappropriate to offset emissions that will be in the atmosphere for thousands of years with forestry that may not exist for similar timeframes. By giving fossil carbon dioxide emitters an easy out we have taken the focus off the need to reduce gross emissions. This approach is also rapidly changing New Zealand's landscape, and not always for the better.
- Emissions from international travel are a challenge. I believe we should tax all international departures and invest the proceeds into international collaborative research on sustainable aviation fuels. New Zealand's remoteness makes its tourism industry particularly exposed. It needs to work with other similarly challenged destinations to see that a critical mass of investment can be focused on finding a solution.
- Free allocation of credits needs to be phased out more quickly. If the European Union's carbon border adjustment survives challenge we will see the United States and China follow and the argument for free allocation will be significantly reduced.
- Agricultural gases also need to be priced. In my view a short-lived gas like methane would be better dealt with in a separate cap and trade scheme. Gross emissions of biogenic methane must be reduced. Forestry could also be used to offset part of the warming from New Zealand's herds of ruminants, though the areas of forest required to do this are very large so forest offsetting could only ever play a minor role at the national level. It would also put different land uses on a level playing field.

These changes would push up the carbon price and generate significant funds. Exactly how much would depend on how many additional units were auctioned by the Government.

The increased reliance on the ETS for revenue (for different reasons) by different governments is heartening for the durability of the ETS. My main concern is that gross emissions of long-lived gases need to be reduced to zero – if we are to be successful in that goal eventually revenue will reduce. Also, the price will eventually need to be pushed so high it could create political risks.

## Congestion

This is a promising area, and one where there is an emerging political consensus. With the transition to electric vehicles picking up steam there will need to be new ways of paying for transport investments other than a fuel price. Congestion charging fits the bill as it targets the remaining negative externalities accruing to private transportation. Congestion charging is also an important counterbalance to the push for greater sprawl in our cities as it forces transport users to pay the full costs of their reliance on cars.

The main barriers are politics and design. There are many different ways to undertake congestion charging including:

- Zonal – charging for access to a particular zone, as is done in London. This approach might work in places like Wellington.
- Electronic tolls – this approach seems more likely for Auckland where motorway congestion is the problem. Time differential tolls are possible, but the added complexity might be a difficult political sell if they catch people by surprise. In Auckland this could raise around \$200 million per annum.
- Distance charging – the technology for this is not fully developed but as petrol levy income declines, paying for our large roading network makes something like road user charges (RUCs) for cars seem inevitable.

It is refreshing to have a mayor in Auckland who is prepared to front the case for congestion charging and it appears there is good cross-party support to bring it over the line.

### **Water abstraction**

This is an ideal candidate for a resource rental. Water is currently being used as a free input to commercial processes, especially hydroelectricity and irrigation. There should be a minimal charge to raise revenue for all the activity that needs to happen to ensure our water supply stays safe and viable. The alternative is that either the environment continues to suffer or taxpayer picks up this cost. Neither of these outcomes seem fair or acceptable.

The only barrier I can see is the need to resolve Māori rights and interests, which successive governments have steered clear of. The courts will eventually force them to the table. Households may also resist a charge, but many countries have minimum thresholds for such charges to allow for basic uses.

Consented takes for consumptive uses of water (not including hydro) are 13 billion tonnes. Actual use is certain to be lower, but it is difficult to know by how much. Ideally a price would vary based on scarcity (which depends on region and season), but even a low resource rental (less than a dollar per tonne) could generate considerable revenue. Non-consumptive uses would also be expected to contribute, though at a lower rate.

### **Water pollution**

Trying to use taxes to deal with water pollution makes major demands on information and measurement. But it has been successfully used at Lake Taupō where a cap and trade scheme was introduced to buy back 20% of the nitrogen discharge to the lake and then leave polluters to live within limits or buy others' discharge rights if they wanted to discharge more. The most interesting thing about the Taupō scheme was its cost. A cool \$80 million from taxpayers and ratepayers spent to effectively buy out any rights to intensify land use. Why did it happen at Taupō? You don't have to be a genius to know that alarm bells ring more keenly when Auckland's recreational watering holes are at risk than those of much of provincial New Zealand.

Which brings me to my final point – and back to my topic: are environmental taxes the perfect solution that nobody wants? The *political economy* of introducing environmental taxes is tricky. There is, understandably, innate suspicion of 'just another tax'. People need to be convinced that they are going to get something in return and the more diffuse the benefit is, the harder such taxes are to introduce. Treasuries hate the idea, but hypothecation that enables politicians to say that the proceeds have been ring-fenced to go towards tackling the problem is a great deal more saleable than giving people a lecture about the need to change their ways.

Some countries have made much greater use of environmental charges and levies than we have. But it's worth looking closely at how they're pulled them off. We all assume that Sweden is inherently progressive and swallows new taxes without flinching. I was involved in a review of Sweden's environmental performance a few years ago and we goo-ed and gaa-ed at all the clever innovative things that had been tried. One in particular sticks in my memory. It was a NOx tax designed to radically reduce nitrous oxide emissions from industry. The level of the tax was swingeing but the entire revenue from the tax was paid to emitters – but in inverse proportion to their emissions intensity. It seemed very clever. "How", we asked, "did you manage to sell it?" "Oh", they said, "it was slipped into a massive tax reform package that covered a gazillion other things." In other words, it had cover from a whole range of other things that were being attacked at the same time.

You may find that distressingly cynical. But I am unaware of easy ways to introduce new taxes. The intellectual cogency of the case for tax reform seems to be almost without leverage. The crisis of the moment opens all sort of opportunities. We will eventually get serious about all sorts of environmental problems which will require taxing-style mechanisms if the resources that need to be mobilised are going to be obtained. But until there's a crisis, my hunch is that we'll keep coming up with reasons why it's all too hard and stick with the tried and true second and third best solutions of regulation and subsidy.