

New Zealand's Defective Law on Climate Change

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1. Some History

Two “wicked problems” that I encountered in politics have continued to occupy me in the years since - the nuclear weapons issue and climate change. It is hard to say which is worse. Big nuclear explosions, if they occur, will produce a nuclear winter that will make human life impossible to sustain. Anthropogenic climate change is heating up the atmosphere, raising sea levels, increasing ocean acidification, increasing the frequency and intensity of storms and other extreme weather events that will make life seriously endangered.

On both these issues the world has made little progress since 1990. The nature of the policy failures in both these areas is a sad indictment on the incapacity of the peoples of the world to act in their own collective self-interest. The international community lacks both the machinery and the political will. At present it may also lack the technology to reduce the reliance on carbon. The science is telling us to reduce carbon emissions as soon as possible. In practical terms this means using alternatives to coal for electricity as soon as humanly possible and switching from other fossil fuels on a rapid transition path.

I found three years as the Minister for the Environment from 1987 until 1990, an extraordinarily enlightening and educational experience. Not only were we grappling with the design of the Resource Management Act 1991, but also towards the end of my tenure the climate change issue came into prominence. On 4 August 1990 we announced the New Zealand’s Government’s response strategy.¹ The step was taken because the first reports of the United Nations Intergovernmental Panel on Climate Change were produced in 1990.² While the global scientific knowledge had not yet reached the clarity and consensus that it has now attained, the shape of things

¹ For details see Geoffrey Palmer *Environmental Politics-A Greenprint for New Zealand* (John McIndoe, Dunedin 1990) 59-73.

² Intergovernmental Panel on Climate Change, *Climate Change: The IPCC Scientific Assessment* (J T Houghton et al, eds 1990); Intergovernmental Panel on Climate Change, *Climate Change: The IPCC Impacts Assessment* (W J McG.Tegart et al eds,1990).

to come was clearly discernible even then. The first peer reviewed scientific article on the topic appeared in 1895!

The strategy adopted by the Government in 1990 called for priority to be given to reducing the emission of greenhouse gases, rather than focusing on adaptation. The announced aim was a 20 per cent reduction of 1990 carbon dioxide emissions by 2005, as an interim objective. The Ministries of Commerce, the Environment and Transport were required to work together to develop a carbon dioxide reduction plan, in consultation with other government agencies, local and regional government and NGOs. The strategy also required the pursuit of an increased use of renewable energy resources in New Zealand.

Waste management was also to be pursued to reduce methane emissions by capturing methane and using it as an energy source. Further, forestry policy was to be examined in order to find the best means of protecting and enhancing the role of forests as carbon sinks. Reduction targets were set by the strategy:

Carbon dioxide-20 % reduction by 2005, with reports to be prepared on the actions necessary and implications of 40% reduction by 2015 and 60 % cent by 2020.

I made several speeches in the Pacific warning the Pacific Island countries of the dangers of inundation due to rises in sea level caused by climate change. I said at the University of Papua New Guinea in May 1989:³

“In our neighbourhood are many small nations, rich in history, culture and language. There are several nations in the Pacific region that are made up totally of atolls. The entire land base of these vital, unique and important countries may one day be physically destroyed.”

³ *Environmental Politics*, above n 1 at 70.

New Zealand worked hard within the United Nations in those years and later to ensure the upheavals that the Pacific Islands were facing from climate change were brought to the attention of the world in the reports then being prepared. Inundation from the sea will likely create climate change refugees and worldwide there will be millions of them.

2. The Technological Challenge

After the 1990 general election the Government changed and the strategy outlined above was abandoned. Looking back it seems clear that had a strategy of the type adopted in 1990 been followed it would have produced steady progress and would not have been unduly economically disruptive. It seems clear that the costs of mitigation go up as a result of action to reduce them being delayed.⁴

Now, since so little has been done, the costs of adjustments and the shocks accompanying change will be disruptive and more difficult. It all shows that the short term nature of New Zealand and international political decision-making stores up big problems for the future and puts off difficult decisions so that they become much more painful when eventually they have to be made.

The need to transition towards a low-carbon economy has been obvious for more than twenty years and New Zealand decision-makers have not travelled there. Our political decision-making system in New Zealand concentrates remorselessly on the short term partly due to the incentives produced by the triennial election cycle. But there are other reasons such as the activities of various pressure groups. The failure to analyse and act upon long-term challenges threatens our future.⁵ It does need to be stressed, however, that substantial economic costs will inevitably be involved in combatting climate change.

⁴ Catherine Leining, "New Zealand's Journey toward a Low-Emission Future: Today's Climate Change Landscape", Motu Economic and Public Policy Research Trust, Motu Note # 16, January 2015.) at 1. Motu has produced a number of useful pieces of research on the topic.

⁵ This is a point I made in my recent memoir, Geoffrey Palmer *Reform-A Memoir* (Victoria University Press, Wellington, 2013) at 698.

Furthermore, in making the transition to a low carbon economy difficulties abound. In this respect I am indebted to the New Zealand scientist Professor Michael J Kelly, the Prince Philip Professor of Technology at the University of Cambridge, who is currently visiting Victoria. He takes the view that lack of engineering reality tests cripple most suggested de-carbonisation policies. The three laws of thermodynamics mean that energy is conserved but downgraded in any process. He stresses that there is no single silver bullet and demand reduction across all sectors of the economy will be essential. “The scale of the engineering challenge is massive and unprecedented in peacetime.”⁶ He is highly critical of what has been done in the United Kingdom in this regard where energy prices have increased, smelters have closed there and production shifted to China which makes the overall situation worse. Kelly poses some challenging issues for those who contend airily that technology can solve the problem. The lead-time for successful infrastructure technologies is long. We have no de-carbonisation route map.

He says “We could live a high standard of living with half our per capita use of energy, with less travel, shorter supply chains, and lower heating budgets.” He concludes that until now the cure has been worse than the symptoms. But the burden of the IPCC reports suggests that will not continue to be the case.

So is it the case that we have to wait until the adversity actually sets in before effective action is taken? Is the failure to act because people have not yet felt the adversity of climate change and will not sanction serious action until then. And if that is the case, will it be too late by then?

⁶ Michael J Kelly “Future Energy Needs and Engineering Reality” Presentation to 2nd International Symposium on Energy Challenges, 25 September 2014.

3. Early Negotiations

In the early 1990s a big effort was made to produce international instruments that could form the basis for an attack on the problem. At the Earth Summit at Rio de Janeiro in 1992 a hard law convention was negotiated and signed. The *Vienna Framework Convention on Climate Change* remains the prime legal instrument, although its achievement in reducing greenhouse gas emissions has been small. Emissions have increased. That is partly because the difficulty of the problem was underestimated. The Kyoto Protocol that was negotiated in 1997 and entered into force in 2005 concentrated upon reductions in emissions from developed countries. New Zealand ratified the Protocol and is obliged to meet its terms, including a quantitative target for the period 2008 to 2012, but has not signed on for the next phase under that agreement.

A Vienna Convention on Substances that Deplete the Ozone layer had been rapidly negotiated and agreed in 1985 and a Montreal Protocol to it in 1987. But this dealt with man-made chemicals, chlorofluorocarbons and halons. It was relatively easy to secure agreement and action was taken quite quickly since substitutes that could be used as refrigerants and for other uses were available. However, it will be quite a few years yet before success can be assured, although the recovery seems to be progressing well. It takes a long time for the ozone hole to close. Nevertheless, as international environmental agreements go, this was stunning success both in speed of negotiation and widespread international acceptance and ratification. Climate change has proven to be harder and more intractable.

In 1991 building upon my experience as Minister for the Environment and the international meetings I had attended I began teaching International Environmental law in the United States. I wrote quite extensively in the international journals on the subject and produced with two American colleagues a law school teaching text, now in its third edition.⁷ It has about 150 pages on climate change. Teaching the course and helping prepare subsequent editions of the book kept me

⁷ Jonathan C Carlson, Geoffrey W R Palmer and Burns H Weston *International Environmental Law and World Order* (3rd ed, West, St Paul 2012.) The first edition was published in 1994. The book has an accompanying volume of relevant international treaties that runs to 1,500 pages.

up to date with developments in climate change. And watching developments over the years has filled me with an increasing sense of foreboding as to whether the world will ever successfully conquer this problem.

The key issues are both international and domestic and in both instances progress has been painfully slow. The longer we wait the more difficult the policy adjustments will be. New Zealand in recent years has been a laggard in addressing its own burgeoning emissions issues. That in turn has damaged its capacity to act as an advocate for promoting change at the international level. The state of the law both internationally and domestically is fundamentally defective and not fit for purpose.

4. The Defective International Law

International negotiations on climate change that have been progressing fitfully for more than 20 years are planned to move to a climax in Paris in December 2015. The Ministry of Foreign Affairs and Trade October 2014 briefing paper to the incoming Government stated the main issue accurately and succinctly: ⁸

Climate change is the most urgent and far-reaching threat we face and the current negotiations on climate change are the most important multilateral negotiation now underway. Positions taken by countries on climate change and their readiness to contribute to global solutions will increasingly define the way that others perceive them, politically and economically.

What we need to understand is the legal context in which those negotiations will take place. Governments may play lip service to making progress but whether real progress will be achieved remains dangerously uncertain.

⁸ <http://mfat.govt.nz/downloads/media-and-publications/BIM%202014%20Public.pdf>
at 7.

International environmental governance is weak and the explanation for that lies in the institutions of international law. The negotiating of treaties is dominated by the principle of unanimous consent. Nations cannot be bound to treaties to which they do not agree. The burden of state sovereignty poses obstacles to progress in every direction. Unless there are clear rules and obligations that are enforceable the prospects of solving the problems of climate change seem remote. Securing the necessary level of voluntary agreement between nations looks unlikely 23 years after the Framework Convention on Climate Change was agreed. Individual country commitments do involve specific costs now. The benefits on the other hand will be reaped by future generations. The issue of fairness to future generations arises in many areas of international environmental law and is particularly prominent in climate change.⁹

Consent is required in the international legal system. It is not required in any domestic legal system. Nations have legislatures. They pass laws. Those laws are binding on everyone in the country whether they agree or not. There is no international equivalent of a legislature for climate change, despite the best efforts that were made in providing for majority decisions in some aspects of the climate change convention. In the absence of a legislature climate change looks a bit like a classic game of the prisoners' dilemma.

I wrote an article in 1992 published in the *American Journal of International Law* drawing attention to the fundamental weaknesses of international environmental law and suggesting that new ways be devised to overcome the problem.¹⁰ The missing institutional link was the equivalent of a legislature. What was required were new methods that avoided developing international legal standards in small incremental steps, each of which must be subsequently ratified by all countries. A new chapter of the United Nations Charter could accomplish such a development I thought, perhaps a new Environmental Protection Council with the capacity to take binding decisions.

⁹ Edith Brown Weiss *In Fairness to Future Generations-International Law, Common Patrimony and Intergenerational Equity* (Transnational Publishers, Dobbs, Ferry New York, 1989).

¹⁰ Geoffrey Palmer, "New Ways to make International Environmental Law" 86 *American Journal of International Law* 259 (1992). It is reprinted in Geoffrey Palmer *Environment-the International Challenge* (Victoria University Press, Wellington, 1995) 45.

The international legal order is not fit for purpose when it comes to dealing with climate change. The incubus of outdated ideas about state sovereignty too often prevents the required outcomes in climate change negotiations. The frustration, the waste of time and resources and the spinning of wheels that these negotiations involve should not be underestimated. The failures are due to the structural weaknesses of the international legal framework. A quantum leap forward in international governance is required.

To secure such a change will require determined political leadership and there have been few signs of that emerging on the climate change issue. Freedom to pollute the global commons brings ruin to us all yet the short-term incentives for individual nations not to act are strong.¹¹ We have failed to build the institutions necessary to cope with problems that human activities have created. Nations are unwilling to agree to enforceable legal rules against themselves. The way the 2015 negotiations in Paris are shaping up it seems that the goal of legally binding targets upon nations for their carbon emissions will not be achieved, although that was the aim when the preparatory meetings started. If agreement is to be achieved there will be issues about the precise content of the agreement and how effective it will be.

5. New Zealand's Role Internationally

There have been occasional reports that New Zealand is playing an important role in bringing together developed and developing countries to find a way to reach commitments. Since the Presidents of China and United States reached an understanding late in 2014 there has been an impetus in these talks. If understandings could be reached by the biggest emitters that would help greatly.

New Zealand's proposal is that each country would make a legally binding obligation to submit a schedule for reducing emissions. There would be legally binding pledges for accounting, reporting and periodic review and updating, but the content of the schedule –the

¹¹ Garrett Hardin, "The Tragedy of the Commons" (1968) 162 *Science* 1243.

level to which emissions will actually be reduced-would not be legally binding.¹² The power of the proposals lies in the principle of transparency, that the agreement would implement a universal transparency framework. The justification for the approach that avoids legally binding targets is put forward by New Zealand as follows:

National determination of contributions allows Parties to self-select the type and ambition of their mitigation contributions to suit their national circumstances. Different commitment types lend themselves to different transparency requirements – both ex ante and ex post the tabling of contributions. A common transparency framework can accommodate parties at different stages of development – the tiered approach of the IPCC guidelines for national greenhouse gas inventories, for example. An accounting menu, from which Parties select options best suited to their national circumstances will also align expectations of Parties with their circumstances. In respect of providing finance, categories of countries make little sense in the context of the magnitude of the task. All Parties in a position to do so should support the most vulnerable and least capable.

It is of vital importance that such an agreement is backed up by enforceable obligations-clear accounting rules and a methodologies, the need to provide information about national determined contributions, the provision of hard information about what has occurred and the opportunity for review. In a word there need to be mechanisms to ensure compliance.

But without targets the approach has serious weaknesses in my view.¹³ It will allow for all manner of backsliding, gaming,

¹² I find it strange that the only public announcement of the New Zealand initiative seems to be in a speech at Yale University on October 14 by Todd D Stern Special Envoy for Climate Change on the US Department of State Website entitled “Seizing the Opportunity for Progress on Climate.” But the October 2014 New Zealand paper is available http://unfccc.int/files/bodies/awg/application/pdf/new_zealand_submission_to_the_unfccc_on_the_adp_work_stream_1_-_elements_-_october2014.pdf

Two American commentators find merit in the New Zealand proposals: Daniel Bodansky and Elliot Diringer “Building Flexibility and Ambition into a 2015 Climate Agreement”, 2014 Center for Climate Change Solutions. They suggest the answer lies in a hybrid approach that combines elements of both the top down approach and the more recent bottom up approach and that the essential political will must come from the domestic realm.

¹³ The case against targets was in 1992 advanced by Professor Thomas Schelling:

The current popular expectation is that participation in any greenhouse regime will take the form of commitments to specified percentage reductions of emissions below those of

prevarication and the securing of rewards for free-riding nations. Such problems will likely ensure that targets backed by even the most conservative science will be missed. I note that the European Union favours legally binding emissions targets.¹⁴

The issues at stake here is how much national flexibility to allow and how much to rely on international rules. However the balance is struck in Paris, it is vital that it be struck. Further endless iteration will mean we run out of time and cannot mitigate thus relying on adaptation only.

I agree that additional measures are necessary but I am not convinced that targets are an unsound policy. The argot of the negotiations has been about targets for more than twenty years. The absence of legally binding commitments on emission targets or measures that will have the same effect will open the door to policy failure. The purpose of the 1992 Climate Change Convention as stated in Article 1 is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Will these proposals achieve that?

6. The Political Reality

There is every prospect that the structural weaknesses in the international system will defeat the effective implementation of such a proposal even if it is agreed. We are working with defective tools here. Few governments wish to face that issue, many try to avoid it. The political imperative that dominates all significant international meetings is of being able to claim progress has been made and that consensus is reached. Inevitably that means the standard is of the

some specified year, like 1990 or 2000. I cannot help believing that adoption of such a commitment is an indication of insincerity. A serious proposal would specify policies, like taxes, regulations, and subsidies and would specify programs (like research and Development, accompanied by very uncertain estimates of their likely effects on emissions. In an international public forum, government could be held somewhat accountable for the policies they had or had not put into effect, but probably not for the emissions levels achieved.-Thomas C Schelling, "Some Economics of Global Warming" (1992) 82 American Economic Review 1.

¹⁴ "Lima climate talks: EU and US at odds over legally binding emissions targets" The Guardian, 2 December 2014.

lowest common denominator. Weasel words and loose language will cover up ambiguities and difficulties.

Political leaders will proclaim they have made progress when the reality is likely to be very different. Since 1992 the history of climate change negotiations has been littered with false starts, blind alleys and a lack of achievement in arriving at binding targets or equivalent measures for the reduction of carbon dioxide emissions. Now there is a risk that the ground is being laid for the critical Paris talks towards the end of 2015 to produce more fudge and push out the boat for future iterations. But we do not have time as the science makes clear.

The much trumpeted UNFCCC talks held in Lima, Peru in December 2014 were a serious disappointment as were those in Warsaw in 2013, Doha in 2012, Durban in 2011, Cancun in 2010 and Copenhagen in 2009. Essentially the nations agreed in Lima that they needed to agree to an instrument with binding legal force but have not done so yet. The central decision of the Conference was:¹⁵

... that the protocol, another legal instrument or agreed outcome with legal force under the Convention applicable to all parties shall address in a balanced manner, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building, and transparency of action and support.”

They did decide an ad hoc working group will make available a negotiating text before May 2015, preparatory to the Paris talks in December. The loopholes and escape hatches in that language make clear there are deep divisions within the international community about how to deal with the problem and even whether to deal with it. One of the key issues is how to encourage countries with rapidly developing economies and huge populations to mitigate their emissions.

¹⁵ United Nations, Framework Convention on Climate Change, Conference of the Parties, 20th sess., Lima 1-12 December 2014, FCCC/CP/2014/L.14. (13 December 2014)

The lack of international leadership, where more than twenty meetings since 1992 have produced so little, is a bad augury. But it is also an indication of how hard solving the problem is. Any agreement reached in Paris is unlikely to be unenforceable. And it is also likely it will be insufficient to meet the 2 degrees Celsius target in the non-binding Copenhagen accord. The overarching goal of the Paris meeting is to reduce greenhouse gas emissions in order to limit the global temperature increases to 2 degrees Celsius above pre-industrial levels.

7. Science Says Rapid Reductions in Carbon Emissions Required

Professor James Hansen of Columbia University formerly of NASA now argues that the target of two degrees global warming is a dangerously low target. In a 2013 paper he argues with other colleagues that the dangerous effects of climate change will start kicking in at a temperature rise of 1 degree Celsius. While the 2 degree target is now almost out of reach or becoming so, a 1 % increase will lead to massive destabilisation. The abstract of the paper says:¹⁶

Rapid emissions reduction is required to restore the Earth's energy balance and avoid ocean heat uptake that would practically guarantee irreversible effects. Continuation of high fossil fuel emissions, given current knowledge of the consequences, would be an act of extraordinarily witting intergenerational injustice. Responsible policymaking requires a rising price on carbon emissions that would preclude emissions from most remaining coals and unconventional fossil fuels and phase down emissions from conventional fossil fuels.

In policy terms the paper concludes that a Kyoto approach with national targets for emissions reductions and cap-and-trade mechanisms "climate deterioration and gross intergenerational injustice will be practically guaranteed." The scientists argue "If, in contrast leading nations agree in 2015 to have internal rising fees on

¹⁶ Hansen J, Kharecha P, Sato M, Masson-Delmotte V, Ackerman F, et al (2013) Assessing Dangerous Climate Change" Required reduction of Carbon Emissions to Protect Young People, Future Generations and Nature. PLoS ONE 8(12) e81648. Doi:10.1371/journal.pone.0081648.

carbon with border duties on products from nations without a carbon fee, a foundation will be established for phase over to carbon free energies and a stable climate.”

The development of rational policy requires the preponderance of scientific evidence on this issue to be heeded. It is lamentable that the global response so far has been so limp and that short term economic and political considerations have prevented determined action. The reason perhaps lies in the lack of available technological means to make a smooth transition to a low carbon economy.

The prospects of achieving the goal become less the longer the issue is left hanging. New Zealand’s current low key approach to the whole issue of climate needs to change. Serious issues about fossil fuels, internal climate change policies and ruminant animals all require attention. I feel New Zealand could have been positioned as a world leader in renewable energy. We need to forge a pathway to a low emission economy.

8. New Zealand’s Domestic Law

The complicated inter-relationship between international law and domestic law makes it harder to fashion adequate climate change law. New Zealand is bound by treaties it has ratified. But it does not ratify until it has converted the international obligation into domestic law, usually by statute. In legal terms climate change is problem of trans-boundary air pollution that requires international action to combat. But the international law and domestic law do not move in harmony with one another. Do we wait until there is a binding international obligation to repair our domestic law? The answer must be “No” because mitigation requires different measures from domestic adaptation.¹⁷ And both are necessary to deal with the issue.

The two prime New Zealand statutes to governing most actions on climate change are the Resource Management Act 1991 and the

¹⁷ On adaptation I have benefitted from conversations with Laura McKim of the Wellington Regional Council. Judy Lawrence and Professor Martin Manning from the Victoria University of Wellington New Zealand Climate Change Research Institute have also provided me with help.

Climate Change Response Act 2002. In relation to climate change both are highly problematic, deficient and in need of urgent attention. New Zealand domestic law on climate change exhibits the characteristic weaknesses of the New Zealand law-making system.¹⁸ Statutes are frequently and massively amended, leading to incoherence in the statutory scheme, there is often insufficient care taken in the preparation of new statutory schemes, legislation gets rushed through rather than there being a focus on getting it right, and there have been failures to follow agreed legislative standards and insufficient scrutiny by the House of Representatives.¹⁹ We suffer in New Zealand from a failure to base policy upon evidence. And the statute book speaks with many voices in New Zealand on climate change. There exist a number of provisions enabling and providing incentives for fossil fuel exploration.

9. The Resource Management Act

The Resource Management Act 1991 was designed and implemented before the magnitude of the climate change problem was fully apparent. The Bill was introduced in 1989. Amendments have been made to try and take the issue into account to some degree but these have been insufficient and have raised more problems than they have solved.

The unsatisfactory nature of the law has caused expensive and lengthy litigation, including a journey to the Supreme Court. In *West Coast ENT Inc v Buller Coal Ltd.*²⁰ the Supreme Court had before it the provisions of the Resource Management (Energy and Climate Change) Amendment Act 2004. The Amendment Act directs those operating under the RMA to have particular regard to the efficiency of the end use of energy and the benefits derived from the use and development of renewable energy. However, the Amendment Act also introduced provisions prohibiting consent authorities from considering the effects of GHG emissions on climate change when making rules to control discharges into air (Section 70A) and when considering an

¹⁸ Geoffrey Palmer "Law-Making in New Zealand: Is there a better way?" (2014) Waikato Law Review 1. For a simpler account see Geoffrey Palmer "There should be a law against it" *New Zealand Listener* February 7-13, 2015 at 27.

¹⁹ See Legislation Advisory Committee Guidelines <http://www.lac.org.nz>

²⁰ *West Coast ENT Inc v Buller Coal* [2014] 1 NZLR 32; [2013] NZSC 87.

application for a discharge permit(s 104E). The amendments required consents and conditions to follow any national environmental standard to control the effects of climate change of the discharge into the air of greenhouse gases. This amendment was to avoid having Regional Councils arriving at different standards around New Zealand and to avoid double regulation. But in an obvious policy failure by both Labour and National led Governments, no such standard has ever been promulgated.

So New Zealand's key environmental statute is disabled from considering what is a critical issue relating to climate change. I was very surprised, therefore, in reading the Minister for the Environment's speech on 20 January 2015 concerning changes to be made to the Resource Management Act proposed by the Government to find no mention of climate change.

The Supreme Court decision is arguably wrong, as pointed out in the dissent of Elias CJ, because the majority did not address whether the sustainable management test in section 5 of the Resource Management Act had been met. Nevertheless, the result was that consent for a massive open cast mine for coal in the Buller was allowed to proceed without any consideration of the effects of burning the coal on the planet's atmosphere.

Nathan John Ross concludes, analysing the holding of the majority, that it is not open to territorial authorities and regional councils to regulate activities by reference to the effect on climate change and greenhouse gas emissions:²¹

[The *Buller* decision effectively removes all consideration of greenhouse gases, whether those gases are emitted directly, indirectly, diffusely, or in fact reduced. Could it really have been the legislature's intention to remove from the internal workings of New Zealand's principal piece of environmental legislation

²¹ Nathan Jon Ross, Directed Individual Research, Faculty of Laws Victoria University of Wellington, "Case comment: *West Coast ENT Inc v Buller Coal Ltd* [2013] NZSC 86. Mr Ross was a member of my Climate Change and the Law course in 2014 at the Victoria University of Wellington Law Faculty.

virtually all opportunities, both negative and positive, to consider the one environmental issue that adversely affects all others?

While mitigation of global warming under the Resource Management Act is important and the law as it stands is clearly deficient, the statute is also the prime mechanism by which climate change adaptation must be addressed in New Zealand. Here the approach of central government has been to leave it to local authorities with little help or guidance.²² No signals are given that central Government regards the issues as a priority. The Ministry for the Environment is currently in the process of updating its climate change adaptation guidance for local government but that is not enough. What is required in my opinion is a National Environmental Standard promulgated under the RMA to avoid having Councils argue the science and re-litigate with their communities over and over again.

Section 7(i) requires “the effects of climate change” be considered as one of the “other matters” to be weighed under Part 2 of the Act. Section 7(j) requires “the benefits to be derived from the use and development of renewable energy” to be weighed too. The first of these is limited in its scope because of the Supreme Court case discussed above.

The range of future difficulties that will have to be dealt with under the Resource Management Act, the Building Act, the Civil Defence and Emergency Management Act, the Drainage Act, the Soil Conservation and Rivers Control Act as a result of climate change will include:

- inundation of coastal land by the sea;
- increased flooding and slips;
- building on land subject to hazards and floods
- catchment management and river protection works;
- the provision of robust infrastructure;

²² New Zealand Government, Ministry for the Environment, *Climate Change effects and impacts assessments-A Guidance Manual for Local Government in New Zealand* (2nd ed., Wellington May 2008). There have been substantial developments in the available scientific understandings of the hazards contained in voluminous report of the IPCC of the hazards since 2008.

- future settlement patterns and changing demographics;
- planning changes as a result of climate change.

Serious quantities of risk analysis are required. One would have thought a properly thought through national strategy with a strong emphasis on community engagement was required. But there is no sign of one. Local authorities are left to struggle through the thicket with little help and no direction.

10. The Climate Change Response Act and the Emissions Trading Scheme

The Climate Change Response Act 2002 was amended in 2008 to initiate the Emissions Trading Scheme. The Act started life as a serious response to the climate change problem, but it has suffered the fate of many statutes in New Zealand. When the Government changed it was massively amended, several times. It has lost coherence. It was substantially weakened, obligations were deferred and the changes favoured emitters. The Act suffers now from a myriad of public law problems. When I was teaching the statute last year I found that it was a treasure trove of doubt, difficulty and obstacles. It creates a ministerially approved market for emissions trading. The power of the Minister and of other authorities responsible to him to change almost every detail of the market does not inspire confidence in investors. Who wants to participate in a market that can change at any time at the whim of a Minister?

Advising participants in this market is a legally fraught undertaking. And I am not here dealing with the Act's lack of bite in reducing greenhouse gas emissions. I am talking about the words, fishhooks and traps contained in the 481 pages of the statute. The complexity of the institutional arrangements, the powers of the Minister, the Chief Executive, the Registrar, the Inventory Agency and the wide powers to direct under section 8A fill me with dread as a lawyer. The power to additionally regulate by other instruments is substantial. For example, auctions of emission units can be introduced by regulation. The impression is one of unconfident and tentative steps. Participants in this market will never know where they are and the ground can easily shift under them. The whole statute has a cloud of regulatory

uncertainly hovering over the top of it. As a law it is not fit for purpose.²³

Added to that the statute has had almost no effect in reducing New Zealand's greenhouse gas emissions. The failure to set a carbon price is fundamental, coupled with the piecemeal and delayed decisions in implementing it. Agriculture, the sector that emits more GHGs than any other receives a free ride. New Zealand has an unusual emissions profile in that nearly half of our total emissions are produced by agriculture, mainly methane and nitrous oxide from farm animals and some nitrous oxide from farm fertiliser. But increased carbon dioxide from the energy sector has grown by 45 per cent compared to 1990 emissions. On current settings the Emissions Trading Scheme, the main instrument for reducing emissions will reduce gross emissions by 0.4% in the year 2030 compared with the situation if the Government had taken no action.²⁴

We seem prepared to ignore in New Zealand the basic economic principle that all polluters need to face the full cost of their actions as a deterrent so that externalities are avoided and the public is not subsidising polluters. Any ETS based on a cap and trade system requires a cap on the total amount of emissions. The New Zealand system does not have one. The weak price signal has had negative impacts in the forestry sector. The price of carbon is currently not sufficient to deter deforestation or incentivise new planting. The failure to set a proper carbon price has been seriously criticised by the Parliamentary Commissioner for the Environment, a person with statutory independence. Here is a summary of what she told a Select Committee considering further weakening amendments to the Climate Change Response Act in 2012:²⁵

Climate change is the biggest environmental challenge we face. Over my term as Commissioner I have continued to make

²³ The Regulatory Impact Statement prepared at the time of the 2009 amendments came close to saying what I have said in the text.

²⁴ Sustainability Council of New Zealand, "New Zealand's Climate Change Targets, Projections and Liabilities" 2nd ed., December 2014. I acknowledge the help Simon Terry has given me with this paper.

²⁵ [http://www.pce.parliament.nz/publications/all-publications/ Submission on the Climate Change Response \(Emissions Trading and other matters\)Amendment Bill \(2012\)](http://www.pce.parliament.nz/publications/all-publications/Submission%20on%20the%20Climate%20Change%20Response%20(Emissions%20Trading%20and%20other%20matters)Amendment%20Bill%20(2012))

submissions on the Emissions Trading Scheme as it has evolved, and acted as an adviser to the ETS Review Select Committee. In my role I take an independent, long term view of the systems and processes which affect New Zealand's environment.

Despite the weaknesses in the current scheme, I continue to believe that an ETS is the right mechanism to price carbon. It possesses the flexibility and potential to drive efficient reductions in greenhouse gas emissions. The ETS, which is the only real tool the Government has to combat climate change, has already been weakened by amendments.

The changes proposed in this Bill will further weaken the ETS. The carbon market cannot operate without an effective price signal to incentivise changes in behavior. Changes in this Bill mute the price signal by shifting the burden of cost even more from the polluter to the taxpayer. Indeed, by making taxpayers subsidise the cost of pollution indefinitely, the amendments distort the market and limit the incentive to reduce emissions. Thus, they undermine the intent of an ETS – the economically efficient reduction of greenhouse gas emissions.

The weakness of the New Zealand emissions trading scheme are notorious.²⁶ Among its problems are:²⁷

²⁶ The *Climate Change Performance Index 2015* published by GermanWatch and Climate Action Network Europe is a research-based effort, using 300 energy and climate experts from all over the world. It now includes emissions from deforestation. The Index has been produced in each of the previous ten years. The Index rates 58 states that are responsible for more than 90 per cent of energy-related CO₂ emissions. The first three positions in the Index are blank because no country is judged sufficiently meritorious. Australia ranks second to bottom at 60. New Zealand ranks at 43 one place above the United States. For climate policy we are “very poor.”

In 2007 it should be noted New Zealand ranked 22nd. China ranks one below the United States. The top two countries are Denmark and Sweden. It should be stated that the Index may lack scientific rigour- it does little more than state the underlying raw data, emissions per capita, change in emissions and share of renewables. It lacks credibility to say New Zealand has a worse climate policy than Egypt, Algeria, India and Iran. The Index also assigns an arbitrary low rating to the share of renewable energy.²⁶ Nonetheless, the Index causes reputational damage to New Zealand. For the critique of the Index and other observations I am indebted to Professor David Frame, Director and Professor of Climate Change, School of Geography, Environment and Earth Sciences, Victoria University of Wellington.

²⁷ Jessika Luth Richter and Lizzie Chambers “Reflections and Outlook for the New Zealand ETS- must uncertain times mean uncertain measures?” 10 Policy Quarterly (Issue 2) May 2014, 57. See also Adrian Macey “Climate Change –towards policy coherence” 10 Policy Quarterly (Issue 2) May 2014, 49.

- it will have a negligible effect in reducing domestic emissions under its current settings;
- the only reason New Zealand will meet its Kyoto commitment for 2008- 2012 will be units acquired under Kyoto from short term forestry absorption not because New Zealand has been reducing its gross emissions. New Zealand's gross emissions are in fact increasing;
- forestry trading seems to be at a standstill;
- since New Zealand did not sign up for a second Kyoto commitment New Zealand emitters will lose access to Kyoto's flexible mechanism;
- a failure to implement recommended general quantitative limits on offset use-buying cheap units elsewhere means no pressure comes on domestic emitters to reduce emissions;
- there are few incentives provided to invest in de-carbonisation. Indeed, the carbon bill New Zealand will face is effectively being socialised. The oil, coal and dairy industries are all being subsidised in this sense, but renewable energy is not.

The record New Zealand has on reducing its carbon emissions suggests a carbon budgeting process is required that details the expected carbon flows and suggest how these can be reduced by practical actions. The ETS should be strengthened and this would be an ideal time given the low price of oil. New Zealand needs to start investing in a low carbon infrastructure and make a commitment to a zero fossil fuel electricity sector. Transport needs attention and so does forestry. Some attention to agricultural fertiliser will have benefits not only for climate change but also water quality. It is positive that New Zealand is leading international research on agricultural emissions.

No convincing explanation has been offered by Government for its existing domestic climate policy. Certainly the Ministry for the Environment's briefing papers to the incoming government are clear about the challenges. They told the government:²⁸

²⁸ Ministry for the Environment, *Environmental Stewardship for a Prosperous New Zealand* (Wellington, 2014) 4. See also Briefing for incoming Ministers: All of Government Climate change programme, November 2008.

New Zealand's greenhouse gas emissions are small on a global scale (0.15%), however, in 2011 our emissions per capita were ranked 22nd highest in the world, and 6th in the OECD. In 2015 the government will participate in negotiations to agree a new international climate change agreement on reducing global greenhouse gas emissions from 2020. New Zealand faces domestic and international pressure to make credible commitments in face of increasing scientific evidence that urgent and substantial global action is required.

Later in the briefing paper it points out that New Zealand has a long-term target of reducing its net emissions to 50 per cent below 1990 levels by 2050. However, it remarks "our gross emissions have increased by 20 per cent since 1990, and are projected to rise substantially in the time to 2050, based on current settings." How will we get from there from here?

11. Climate Change Deniers

The climate change deniers who have been vocal for many years now have been vanquished. Understanding climate change denial in the face of the massive quantity of evidence that has now accumulated is a puzzle. Deniers assert the scientific consensus that human activity is disrupting the climate is wrong. The fact is that of the climate scientists actively publishing in peer reviewed journals there was 97 per cent agreement on the central issue.²⁹ Denial is not the same thing as genuine scientific skepticism. Deniers use a number of tactics-the use of fake experts; cherry picking some of the data using short periods of time, isolated examples and temperatures from specific locations; ad hominem attacks, straw man arguments, red herrings, false analogies, non sequiturs, false dilemmas and other logical fallacies. There are conspiracy theories at large here as well. Political ideology, Conservative think tanks, and bias in the mainstream media have all contributed to the deniers securing more support than their case deserves. The corporate vested interests in the fossil fuel industries are massive and some of them fund the mischief.

²⁹ G T Farmer and J Cook, "Understanding Climate Change Denial" in *Climate Change Science: A modern Synthesis*; Vol. 1(Springer Science+Business Media Dordrecht 20-13) 445.

Some of the deniers in New Zealand brought a case for judicial review in 2012 of some of decisions made by National Institute of Water and Atmospheric Research Limited, (“NIWA”) being a Crown Research Institute and responsible for much of the New Zealand science on the subject of climate change. The plaintiffs challenged the scientific methods and conclusions reached by the Institute in its reports. The issue revolved around temperature records collated by NIWA indicating New Zealand had warmed over the last century. Adjustments to the raw data made because of regions’ differing climates were questioned. The decision was a rebuff for the deniers: all their arguments were rejected. The challenges to the science of the Institute failed. Justice Venning not only dismissed the case, he awarded costs against the deniers.³⁰ He held they had not acted reasonably. The deniers would not pay, they abandoned an appeal to the Court of Appeal and their Trust went into liquidation. A scholarly analysis of the decision criticised it for the standard of review adopted by the Court, although the right result was reached. The author argued Courts are not well placed to adjudicate on scientific issues and such challenges to the science should not be available through judicial review unless fraud, corruption or bad faith can be proved.³¹

12. New Policy and Economics

The Government will be forced by events to develop and implement a new climate change policy. New Zealand has many advantages, especially abundant renewable energy. The science has to inform the policy. What we have now amounts to policy failure. New Zealand seems to have lost its mojo in looking after the environment generally. But to neglect climate change, the greatest issue of our age, is unacceptable. It is contrary to all our traditions as a progressive country. The scientific consensus is clear.³²

³⁰ *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research Limited* [2012] NZHC 2297(7 September 2012); 1 NZLR 75.

³¹ Laura Hardcastle, “Can’t See the Science for the Solicitors: Judicial Review of Scientific Research in light of NIWA’s case” (2014) 12 NZJPIL 291. She points out that in the case involving likely erosion of the coast by sea level rise over the next century the court there refused to examine the scientific report: *Weir v Kapiti Coast District Council* [2013] NZHC 3522;(2013) 15 NZCPR 28. The issue of treatment by courts of scientific evidence will become increasingly difficult in environmental cases.

³² Intergovernmental Panel on Climate Change “ Summary for Policymakers” in T F Stocker, D Qin, G K Plattner, M Tignor, S K Allen, J Boschung, A Nauels, Y Xia, V Bex and P M Mudgley (eds)

Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and concentrations of greenhouse gases have increased.

While New Zealand will not fare as badly as other countries, particularly Australia, although in practical terms New Zealand will experience:³³

- increasing frequency and intensity of flood damage to settlements and infrastructure;
- droughts in the east and increased wild fire risk to ecosystems and settlements;
- big consequences for climate sensitive primary industries;
- sea level rise and coastal inundation;
- species loss and changes in land use.

It is easy in this field to become depressed at the inaction and lose hope. That is the wrong approach. Determined action at both the international and local level – a combination of mitigation and adaptation - can turn the situation around. We need a long-term consensus based policy agenda. New Zealand needs to develop a new legal pathway that deals effectively with those issues under New Zealand’s control. These must lead to lower emissions. There are many ingredients to the transformative change that will be required-more research, new technologies, individual behaviours are important, leadership and “nudges” from government will matter. Most important is the provision of an effective policy framework.³⁴

Climate Change 2013: The Physical Science Basis (Cambridge University Press, Cambridge, UK 2013). IPCC Fifth Assessment Synthesis Report, *Climate Change 2014 Synthesis Report* (Adopted 1 November 2014).5.

³³ Intergovernmental Panel on Climate Change “WGII AR5 Final Draft Chapter 24 “Australasia.”(28 October 2013).

³⁴ Richard H Thaler and Cass R. Sunstein *Nudge* (Penguin Books Ltd, London 2009).

The future will be different. There will be electric cars. The use of fossil fuels will shrink drastically. Carbon capture and storage technology will advance. A change in the ways we use energy and the development of new energy technologies will assist. But weaning ourselves off carbon is the vital requirement and it will not be easy. Much cooperation will be required at all levels. We must offer something better than dystopian horrors to the next generations. Political polarisation on the issue must be avoided.

The economics of climate protection look quite reasonable to some economists and saving the planet will be cheaper than we thought some years ago. Economic growth and climate change action are not incompatible according to Paul Krugman the Nobel prize-winning economist. He has said “we’ll find that it’s cheaper and easier than almost anyone imagines.”³⁵ As he also said: “The science is solid; the technology is there; the economics look far more favourable than anyone expected. All that stands in the way of saving the planet is a combination of ignorance, prejudice and vested interests.”³⁶ The economic costs vary from country to country.

The New Zealand Treasury, in its Briefing Paper to In-coming Ministers pointed out that the commitment to reduce New Zealand’s current target to reduce emissions to five per cent below 1990 levels over 2021-2030 could have an economic cost to New Zealand of between \$3 billion and \$52 billion.³⁷ New Zealand has emissions targets but no plan of how to reach them.

13. A Hopeful Conclusion

I began this speech with a reference to two wicked problems, perhaps they are super-wicked- the nuclear threat and climate change. I once

³⁵ Paul Krugman, “Errors and Emissions-could Fighting Global Warming be Cheap and Free?” Op-Ed columnist, *New York Times*, 18 September 2014

³⁶ Paul Krugman, “Salvation Gets Cheap” Op-Ed columnist, *New York Times*, 17 April 2014.

³⁷ <http://www.treasury.govt.nz/publications/briefings/2014-climate-change/bim-14-climate-change.pdf> In the publicly available paper the costs figures are redacted but are included in the Sustainability Council’s “New Zealand’s Climate Change, Targets, Projection, and Liabilities,” December 2014, 2nd ed. Sir Nicolas Stern in his 2006 review on the economics of climate change said the costs of mitigation were around 1 per cent of GDP and relatively small relative to the costs and risks that will be avoided.

visited Hiroshima as the New Zealand Deputy Prime Minister. It was a devastating experience. The two nuclear explosions in Japan were catastrophic events, although they have receded now in the human memory and nuclear threat remains ever present. Responding to climate change has been impeded by the difficulty of imagining catastrophic future events. The ozone depletion issue was simpler and easier. There were far fewer actors and interests involved and the remedy was not overly costly. But just as we knew how to repair the ozone layer, we know how to combat climate change: reduce the burning of fossil fuels, accelerate the development of alternative energy sources. If we are to keep the warming below 2 degrees we must leave two-thirds of fossil fuel reserves in the ground. New Zealand must repair its defective law.

We must not despair. We must hope and we must act. We must stop being threatened and rise to the challenge. Big changes to climate change policies everywhere are as necessary as they are inevitable. It was such a conviction, no doubt, that caused Bill McKibben to name his organization “.350.org” since 350 parts per million is the safe level of carbon dioxide in the atmosphere. In New Zealand it is 350 Aotearoa, who have jointly sponsored this address with the Centre for Public Law.

In his recent book *The Meaning of Human Existence* the renowned biologist Edward O. Wilson of Harvard labelled the species *homo sapiens* as “the mind of the biosphere.”³⁸ If that has been our evolutionary destination it would be a sound policy to preserve the biosphere and its ecosystems that support the zone of life on earth.

³⁸ Edward O Wilson, *The Meaning of Human Existence* (Liveright Publishing Corporation, New York, 2014) at 25.