

Dear Garnaut Review Team,

I believe that the attached paper may be of some assistance. It focuses on what appears to be a so far neglected area of the proposed ETS; its political aspect.

No doubt it is an admirable hope to try keeping politics out of an ETS. But a market with highly inflexible demand for the ability to pollute legally, plus the fact that the market relies solely on regulation for its existence, means that, as you acknowledge in your report, there will be huge political pressure brought to bear on any watchdog or ICB or other enforcement agencies.

To simply ignore this aspect of an ETS, is to court disaster, I should expect; both in terms of danger to individual freedom vi-a-vis regulation, and efficacy of enforcing pollution scarcity if that is left without a back up means of enforcement that is entirely out of government hands.

As Samuel Beckett apparently said - sometimes the best way out is through; which is how I have tried to solve this problem in my submission.

My submission, based on a paper I am rewriting for the academic journal Environmental Values, explains, then shows how to fix the problem of the political vulnerability of an ETS to corruption and pressure to over allocate permits. Work that, so far as I am aware, hasn't been done yet (though I am happy to be contradicted on that). And any feedback any of you on the team might care to give would be more than welcome.

In the hope that this is of assistance,

Best regards,

Sam Keenan.

CURING THE ENFORCEMENT WEAKNESS IN A DOMESTIC EMISSION TRADING SCHEME

Sam Keenan*

I INTRODUCTION

My aim is to show how to fix a critical weakness in Emission Trading Schemes as currently conceived; their enforcement mechanism. As recognized by its proponents, an ETS is reliant solely on Government decree for its very existence. Regulation is its absolute lynchpin. If there is no Government prohibition on polluting in the first place – then there is nothing to buy or sell at all. However, there are not yet at least, any proposed checks and balances on this necessary concentration of centralized bureaucratic power.

As I see it, this concentration has three consequences: First, a gradual but sure long term eating away at individual political liberty, due to the depth and scope of regulation required; Second, the long term inability of an ETS to effectively enforce a secure bubble limit on pollution, due to political vulnerability to corruption; and finally, a pollution market is a market in bads, not goods, which of itself, raises searching public policy questions.

First, seen from the side of economics, by relying solely on regulation, an ETS cannot securely and reliably enforce a bubble limit ('pollution scarcity') on greenhouse gas emissions over the long term without some private or non-governmental review of the carbon policing power. This is because an ETS as it currently stands, does not adequately address the corruption problem. Without a formal *non-governmental* review or overview mechanism, the enforcing body for the emission limit is too open to being corrupted, or overallocating permits, or simply being re-legislated by succeeding governments eager to aid their own supporters, or win votes in short term by preserving polluting jobs.

Second, seen from the side of politics, a central bureaucracy for policing greenhouse pollution and permit compliance poses great ongoing risk to individual political and civil liberties. This is particularly so, when it is recalled that the coverage or purview of such a bureaucracy is into practically all economic activity – namely any economic activity which emits greenhouse gases. Any economic activity emitting a fossil fuel waste, or even using animal power of any kind (due to methane) is included, so very little economic activity falls free of the regulation net. This means (as the ETS is conceived at present) risking unreviewed, possibly arbitrary State interference with almost anyone's means of earning a livelihood, let alone other uses of negative freedom rights, under the guise of greening the economy. In the absence of private overview of, or remedy for arbitrary use of that very broad centralized power, this constitutes an intolerable danger to individual negative freedom rights¹.

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Third, the notion of a market which depends utterly on regulation is suspicious. Ultimately a pollution market is a market in bads, not goods. This raises searching public policy questions about whether the law and/or government should tolerate, let alone profit from, such a market. Nonetheless, some secure way of enforcing a pollution bubble (pollution limit or pollution scarcity), is clearly needed. The enforcement mechanism I suggest can provide this, without intolerably white-anting individual negative freedom rights.

My proposed solution in a nutshell

I will argue that one single mechanism can simultaneously remedy these three obstacles, and so cure the enforcement weakness of ETSs. The formal mechanism I propose may seem a little lateral at first – but it can undoubtedly work practically. This is because it is well established; the same legal enforcement mechanism has already been in use for centuries to protect human rights. I suggest protecting the biological basis of the market by granting a right directly to plants and animals; the right not to be harmed by anthropogenic pollution. This right is enforceable against human agencies – individuals, companies and the State. It is also backed up by open standing for any human agency – individuals, companies, the State – to sue in the right of harmed nonhumans.

The upshot is that *any human agent can enforce protection for the biological basis of the market, but no human agent can harmfully pollute it without incurring liability*. So, in cases of government failure to defend the environment's health a private back-up enforcement mechanism is formally and always available; even against the government itself. Unlike an enforcement mechanism that relies solely on regulation, a private back up enforcement mechanism builds an essential check and balance into the unavoidable use of centralized power. It remedies the enforcement weakness of ETSs as currently conceived, as well as protecting citizens from arbitrary abuse of power against individual (human) negative freedom rights.

What my proposal is not

In order to make my position clear from the outset, it is worth establishing what the enforcement mechanism I propose is *not*. It is emphatically not a public right in a clean environment. That approach has been considered² and has not legally or practically been adopted in the US or in Australia. As is well appreciated, a public right has the problem that, to use Robert Goodin's language, "it is everybody's business and no one's":

¹ Negative freedom rights are rights not to be interfered with by the government or other people – sometimes characterised as 'freedom from', as opposed to 'freedom to'. For better definitions see Berlin I 'Two concepts of Liberty' in Berlin I *Four Essays on Liberty* OUP 1969, pp122-31 @ 122-31; see also Hayek F, *The Constitution of Liberty* Chicago University Press 1960, Ch. 1, sections 1 and 6. One proponent of negative freedom rights in the environmental context is Wilfred Beckerman; see his "How would you like your sustainability Sir? Weak or Strong?" *Environmental Values* 4(2) (1995) pp169-79.

² See for example Chiapinelli J A "The Right to a Clean and Safe Environment: A Case for a Constitutional Amendment Recognizing Public Rights in Common Resources" (1992) 40 *Buffalo Law Review* 567-611; and in Australia, Breen P, "Bill of Rights Legislation as a Sanction against Environmental Offenders" available at the Australian Institute of Criminology Website www.aic.gov.au/publications/proceedings/26/breen.pdf

Environmental despoilation poses problems of economic externalities... Environmental inputs are typically 'common property resources'. Clean air and water, fisheries, the ozone layer, the climate are everyone's business, and no one's. No one 'owns' these things. There is no one with standing to sue you if you take them without paying; nor is there anyone you could pay for permission to impinge on them, even if you wanted to do so. That fact inevitably gives rise to a divergence between the full social costs created by your actions and the portion of those costs sheeted back to you as private costs, to be entered on your own ledger. It is, of course, only the latter sorts of costs to which economically rational agents can be expected to respond³.

What I propose is a *private* not a public right: A private right that vests directly in plants and animals themselves – and is not mediated by any human agent, State, corporate or individual. Direct vesting creates immediate liability, because damage done to specific individual rights holding legal entities – i.e. individual plants and animals is directly actionable. Provided that you have evidence of the harm alleged, that is.

In a legal culture that is loathe to impose duties on volunteers, it is not enough to point to the public good that should, or ought to be done. That is basically what a public right does and is why it has not been practically implemented. Rather the appropriate approach in our adversarial, evidence based legal culture, is one where you are able to point to an individual physical body that has been harmed. *If* that body is rights owning, that physical harm creates liability. That liability can then be sheeted home to the personal account of the individual economically rational agent who did the harm, as Goodin suggests. This liability, once established in case law as a precedent, directly influences the price of production of goods produced with polluting technology. The less polluting a firm's technology is, the less liability and legal bill it carries and the greater its economic competitiveness as a result. This creates a direct economic incentive that is not dependant solely on regulation, so solving the enforcement weakness of ETSs as currently conceived. (That is the major, and so far as I am aware, original contribution of this paper).

Importantly – and this is what differentiates what I propose from ETSs as currently conceived - there is no government official the firm can buy off to escape liability, since anyone, even the firm's economic competitors or a greenie or shareholder can sue in the right of nonhumans harmed by the firm's polluting behaviour.

Further, if the liability depends on rights which have been constitutionally enshrined (which is admittedly difficult but achievable) then present *and future* governments cannot legislate, in order to get around the pollution abatement that the liability will economically create. This provides long term protection, unlike an ETSs as currently envisaged, which can be legislated by future governments. As with some human tort law, parallel criminal sanctions are allowed for egregious cases. This private back up

³ Goodin R, *Green Political Theory* (1992) 237.

enforcement mechanism provides the ‘pollution scarcity’ that ETS proponents are aiming at, but without unduly endangering individual political and cultural freedom.

The only remaining problem is that nonhumans cannot speak for themselves. Since this is not a legal problem for ‘voiceless’ human plaintiffs, it shouldn’t be a problem for harmed nonhumans either⁴. Open standing is therefore used (as it is in some jurisdictions already in environmental law) to allow interested parties unfettered access to sue in the right of harmed nonhumans. Thankfully, those nonhumans left in peace to go on living and reproducing keep on creating in perpetuity the essential biological ‘ecosystem services’ that are the absolute basis of any human life whatsoever. And, that is it, in a nutshell.

Structure of the paper

For the full analysis though, first I will examine enforcement weaknesses of ETSs as currently conceived, and show how those weaknesses can be practically exploited, with actual examples.

Next, I will pose the key enforcement question that needs to be answered: How can one ensure a reluctant government of the day (i.e. one that may well have been bought off by polluters) can be *obliged to* protect the long term biological basis of the market, of all of society, from pollution by *any* human agent, State, corporate or an individual? I will then answer the question in the manner foreshadowed.

Finally I will offer some reflections on markets for bads, and the dubious value judgements underpinning them.

II CURRENT DEPENDENCE OF ETSs ON GOVERNMENT DECREE

Proponents of an ETS admit that without government enforcement the ETS would not exist. See for example Professor Ross Garnaut⁵:

Credibility or faith in the enduring nature of the rules and institutions that define the ETS, is essential for its ongoing success. Markets can quickly collapse if their credibility is shaken. This is all the more germane for markets that owe their existence solely to government decree.

As an ETS exists entirely at the behest of government, market participants will be constantly alert for any early signs of shifts in policy, management protocols or operating procedures that potentially undermine the integrity of the market. There will also be incentives to press for change if there appears to be a chance that the rules of the scheme can be influenced. Arbitrary changes to rules that benefit one party will often come at the expense of other market participants, the community or the environment.

See also p12:

To mitigate climate change effectively, a limit must be placed on rights to emit greenhouse gases... Governments with their coercive powers are the *only* bodies able to impose such a restriction.

⁴ See section six, the ‘Voicelessness of nature’ section below.

⁵ ETS Discussion Paper of 20 March 08 Climate Change Review Website, on p13 in the section called “Principle 3: Credibility” Italics added. www.garnautreview.org.au viewed 25 Mar 08.

And also on p12:

Without a scarcity constraint, a market will not exist as permits have no value and there will be no demand for those permits.

As these quotes make clear, the cornerstone of the entire ETS is government decree and enforcement. If this fails at any link of the enforcement chain – integrity of policymakers, legislators, implementors, and individual enforcement officers - with even the slightest regularity the whole market will risk collapse. This fragility was on show, for example, when the whole NSW market collapsed over concerns about over allocation of permits combined with rumours that the Federal government was considering introducing a ETS of its own⁶.

Governments may have powers, without necessarily using them

As noted, Professor Garnaut is undoubtedly correct when he observes:

[t]o mitigate climate change effectively, a limit must be placed on rights to emit greenhouse gases to the atmosphere...Governments with their coercive powers, are the only bodies able to impose such a restriction⁷.

What he perhaps hasn't had time to consider yet, is that just because Governments have these powers, that does not necessarily mean they will always find it in their interests to use them to protect the long term biological basis of the market, or reduce global warming. Employers and employees vote and companies can make political donations; but plants, trees and animals do neither. So, there is no immediate, direct interest for an incumbent government to protect them in the short term, when it comes to losing votes versus protecting the long term biological basis.

However, if a private, or non-governmental review of or overseeing mechanism for, or in particular a supplement to the bureaucratic enforcement machinery were possible, it would allow private individuals, or companies, or indeed other parts of the government to step in at will, when plants and animals producing essential ecosystem services are threatened by government failure to protect them. That is the kind of additional mechanism I will propose in this paper.

III HOW CURRENT WEAKNESS IN ETS ENFORCEMENT CAN BE EXPLOITED

In this section, designed to illustrate the enforcement weakness of ETSs, I will rely on failures of regulation to protect the environment (or human rights) that have already historically occurred. My aim is to bring corruption strategies to light, so that a workable back up system can be designed, so that government enforcement *alone* is no longer relied on in an ETS.

⁶ Frew W and Wilkinson M, "Red Faces as the State's green scheme hits the wall" SMH 11 Sep 07. Because of the constitutional division of power, the Federal scheme undercuts the operation of the NSW market; and there was/is very little the NSW government can unilaterally do about it.

⁷ Garnaut, op cit. p12

First, I would like to preface this section by saying that I still see, inevitably I think, a front line role for police or other governmental environmental enforcement agencies. That must remain – what needs to be added is a *supplement or back up* for times when that initial governmental response falls down, for whatever reason. And over the long term, it is surely inevitable that it will sooner or later fail; so a back up is wise. And it is that private enforcement back up that cures the weakness in ETS enforcement as currently conceived.

So, now let's examine some corruption strategies that individuals or firms, pursuing their own self interest, engage in:

The street level version corruption of pollution policing is the crudest, clearest example: You simply buy off the individual pollution officer from the local council or EPA or pollution police – whoever it might be, the relevant government enforcement officer.

The sophisticated or large operator ratchets it up a notch: If you can influence the entire enforcement agency, you don't need to bother with each individual agent. This strategy looks better if it is seen more as a convergence to a shared national interest. An example from the US EPA is given by Sonia Shah in her book *Crude: The Story of Oil*⁸. She quotes an EPA official who admitted that SUVs were being classed as light trucks by Congress to avoid fuel efficiency strictures because “we don't want to kill the goose that laid the golden egg”. A common national interest⁹ can be seen here, because, as the cliché has it “what's good for General Motors is good for the United States”.

So, if you can find a way to change the relevant regulation at a national level it saves you the inefficiency of worrying about different cities, let alone individual enforcement officers.

The NSW Shoalhaven Paper Mill Case: Enforcing the counsel of Perfection?

In NSW in the South Coast electorate, the APPM Paper Mill is situated on the Shoalhaven river. Under the Mill's new 1991 pollution licence from the EPA, the EPA changed its levels of permissible pollution, according to its new policy of ‘prosecutable reality’; *14 times more pollution* was permitted under the October 1991 licence compared to the earlier licence¹⁰.

The background to this huge increase in permitted pollution levels is instructive. The original limits were set very low, basically at a biocentric level. This earlier limit was calibrated to a level that did no harm to the ecosystem receiving the pollution. From my perspective, I would argue that this limit protected quite intelligently the necessary long

⁸ Shah S, *Crude: The Story of Oil* (2004) Allen & Unwin, Sydney, 39-40

⁹ It is based on a common *gemeinschaft* feeling/identification, between regulator and regulated, coming up against what is seen as being a troublesome *gesellschaft* formal rule. See Sections One and Two of Tönnies F, *Community and Civil Society* Cambridge University Press, 2001.

¹⁰ These were permitted levels for effluent from the western drain with a biochemical oxygen demand which went from 50mg/L in the earlier licence to 720 mg/L in the new one. This effectively decriminalized the existing level of pollution. See *Brown V EPA and North Broken Hill* [No. 2] (1992) 78 LGERA 119@122-3. (The earlier licence was from the EPA's predecessor, the State Pollution Control Commission).

term biological basis of the market. So, from a long term point of view, it was precisely the right kind of long term dirigiste¹¹ limit for a regulatory watchdog to set – in other words, the counsel of perfection.

The trouble was that in economic and biological reality firms were actually polluting at levels way above the biocentric level appropriate to the long term, and had been doing so for years.

The big picture problem here, which we have not solved, and are still grappling with, the background to the background, if you will, is the common problem we all face that, for the first time in human history, on a worldwide scale anyway, we can no longer afford to take the biological pollution sink capacity of the rest of nature for granted. Neither, on the other, ‘input¹²’ side of the economy can we afford to take the inexhaustible cornucopia ‘aspect’ of the rest of nature for granted either¹³.

So, how did this head on collision between a long term biologically secure dirigiste legal requirement, and the economic polluting reality play itself out?

At first the response was pretty much denial: The business people agreed to pay lip service to the counsel of perfection regulations, so long as the bureaucrats agreed not to enforce them.

After a while, however, some big corporations, particularly BHP at Port Kembla became worried about their exposure to possible prosecution and fines, if the regulations ever were enforced – as strictly speaking there were actually polluting well and truly above legal limits. To assuage these concerns, eventually under Environment Minister Tim Moore, and EPA chief John Niland, a government policy called ‘Prosecutable Reality’ was brought in¹⁴.

Existing levels of pollution were decriminalized, and new licences were issued at actual pollution levels. As noted, at the Shoalhaven Paper Mill this meant in one case, a fourteen-fold increase in the legal pollution limit. This ensured that private corporations were not exposed to prosecution by the EPA, and could continue to operate profitably, despite the damage done to the local environment as a result. This huge increase in legal pollution limits was executed by the Minister acting alone, without him having to put the changes to Parliament for approval. This was because the actual levels at which firms

¹¹ Meaning where an economy is run by bureaucrats, rather than investors or businesspeople making the main decisions, via central regulation.

¹² I am here using Herman Daly’s term for ‘what we humans take from the rest of nature’, to put into the human economy. I only use part (a) of his definition however. See Daly H, *On Wilfred Beckerman’s Critique of Sustainable Development* Environmental Values 4 (1995) 49-55@50.

¹³ I put the word aspect in inverted commas to indicate that the cornucopia appears in a number of cases at least, to be a psychological projection, or a deeply ingrained illusion, rather than a correct perception. This way of seeing the problem raises questions that go well beyond scope, and cannot be pursued here.

¹⁴ Prest J *Court challenge to pollution licences* Green Left Weekly 2 Sep. 92.

were permitted to pollute were set not in the text of the Act itself – but in the accompanying regulations¹⁵.

Some troublesome greens (A J Brown and Greenpeace) brought a court case (*Brown v Nth Broken Hill and EPA [No.2] (1992) 78 LGERA 119*), against a polluting company and the EPA challenging the EPA's legal capacity to increase the pollution levels by such a great amount as to allow ecosystems to be destroyed, that previously it had been illegal to destroy (even if practically speaking the law had never been enforced). As a matter of administrative law, it was found that the EPA did have the power to so decide. The rub, was that the green activists were trying to argue a substantive point about the actual effects of pollution on the ground – whereas administrative law is about procedures correctly followed or not; not about questions of merit or substantive outcomes.

So, looking from a big picture perspective, we can say that the necessary but common long term, biological basis was sacrificed to private short term profitability, and consequently jobs. The dirigiste strategy was abandoned – if indeed it had ever been meaningfully taken up in terms of enforcement. The regulations were changed to legalise contemporary polluting levels. What had been regulations protecting the long term biological basis became regulations protecting the profitability of polluting firms. So, bluntly put, the long term general interest in having a secure biological basis for the market and for a democratic society was sacrificed for private profitability, so that jobs and therefore votes in a regional seat could be retained in the short term.

As will be seen in the next example from Tasmania, people have a tendency to vote for their jobs, crossing traditional party loyalty lines to do so.

This fundamental problem is relevant because it is a threat that no government is immune to, however well-intentioned it may be; and as we have seen from Professor Garnaut, the pollution scarcity requirement of an ETS is entirely dependant on effective and credible government enforcement. The same basic votes issue is haunting the present NSW government on climate change, in electorates dominated by the coal fields of the Hunter; where many jobs depend on keeping on polluting.

The only kind of government that may be immune to this threat, is the remarkable prospect of a government of saints. If they were willing to lose an election on a matter of principle, they would do so knowing full well that any policy gains they put in – for example an ETS - may be just as easily undone (i.e re-legislated) by the succeeding government from the other side of the House.

First Tasmanian Example

If this seems farfetched, one only has to look to Tasmania for Labor's defeat in Tasmania in Mark Latham's challenge to Prime Minister Howard in 2004. Latham's forestry policy proposed overwhelmingly preserving old growth forest, and freely retraining workers in

¹⁵ Note that 'regulations' here means regulations under an Act of Parliament – meaning the particular regulations that are used to enforce the details of the Act. So, 'regulations' is different to 'regulation' meaning direct centralized administration on a broad basis.

jobs which added more value than woodchipping. Incumbent Prime Minister John Howard's policy was based squarely on preserving jobs and the status quo. During that election campaign, which he won, Prime Minister John Howard, went on record as saying:

I was not willing to pursue a desirable environmental objective, seen by a majority of Australians, at the expense of the jobs of a limited number of Australians in isolated communities ... in Tasmania¹⁶.

In the dying days of the campaign, Labor copped a Sunday punch from John Howard on forestry policy in Tasmania, providing what one commentator called the 'image of the election'¹⁷, which was John Howard surrounded by cheering union and forestry workers, his traditional opponents, at a televised rally in Launceston. In the end people voted for their jobs. This undoubtedly played a big role in Labor losing the election¹⁸. It is worth noting in this context that the current Labor government has not seen fit to revert to a Latham style policy in Tasmania.

Second Tasmanian Example

To continue on in Tasmania, the woodchipping company 'Gunns' is a perfect example of a corrupting firm. This makes perfect strategic sense to the management and shareholders of the firm itself to bend the rules of the political game in its favour, if it can get away with it, as the quote from Professor Garnaut shows:

...market participants will be constantly alert for any early signs of shifts in policy, management protocols or operating procedures that potentially undermine the integrity of the market. There will also be incentives to press for change if there appears to be a chance that the rules of the scheme can be influenced¹⁹.

For the very profitable, if sickening saga of Gunns in Tasmania – one of the darlings of the Australian stockmarket, after all - read Richard Flanagan's 'Gunns out of Control: The tragedy of Tasmania's forests'²⁰. I will quote only a little of it here, a part directly about the influence of one corporation, Gunns, on the government, and the extent to which the government has been bought out, it would appear, lock, stock and barrel by that corporation:

...in a manner that is at least understandable – if onerous – to Tasmanians, it is clear that in Tasmania Gunns more or less is the law. The woodchippers and their government cronies constantly use the courts against conservationists, but when the courts are used against them, the government's response is admirably straightforward: change the law.

¹⁶ *Canberra Times* 7 Oct 2004.

¹⁷ Paul Kelly, *The Australian XXXXXX*, cited in Simms M and Warhurst J (eds) *Mortgage Nation: The Story of the Australian Election* API Network, Perth, 2005.

¹⁸ For an account of the election as seen in Tasmania, see Howard M and McCall T, *Tasmania* in Simms M and Warhurst J *Mortgage Nation: The Story of the 2004 Australian Election* API Network, Perth 2005, pp225-33.

¹⁹ ETS Discussion Paper of 20 March 08 Climate Change Review Website, on p13.
www.garnautreview.org.au viewed 25 Mar 08.

²⁰ Flanagan R, "Gunns out of control: The tragedy of Tasmania's forests" *The Monthly* No. 23, May 2007. Available online www.themonthly.com.au

Flanagan, then gives two clear examples, and these are precisely the kind of examples that an ETS's enforcement mechanism needs to be able to squarely deal with, in order to retain credibility in the eyes of investors and the marketplace:

[The Government] changed the law...when Bob Brown [leader of the Australian Greens]...took both the Tasmanian and federal governments to court to prove that under their own laws the logging industry in Tasmania was illegal, because it threatened the survival of endangered species...He won...the government's response was not to enforce the [law] to protect those species, but simply to alter it so that logging is once again legal²¹.

This is a direct example of the problem that needs to be solved in a practically achievable manner. From the strategically corrupting firm's point of view: Why bother corrupting the regulator, when you can simply buy out the government of the day and the opposition too, for good measure? If you can determine key pieces of legislation you can retain control of price setting for, and access to your raw materials, in order to ensure profitability, and so fulfill your obligations to your shareholders.

Third example from Tasmania

A third example from Tasmania is the approval process for the Tamar Valley Pulp Mill. The approval process was originally intended to be assessed by an independent watchdog, the Resource and Planning Development Commission (RPDC), so that it could be independently shown that the planned mill met world's best practice. When this independent body was taking too long to assess the mill (even though the former Supreme Court judge heading up the RPDC said that most of the delay was Gunn's own fault) Premier Paul Lennon's response was simply to re-legislate the approval process in a speedier, more Gunn's friendly format. The new format no longer required the mill to comply with the original pollution guidelines, did away with public consultation, and to cap it all off, explicitly stated that even if consultant assessing the mill were found to be bribed, the mill would still go ahead²².

Non-Environmental Examples

These I will only mention briefly, but they are directly relevant to executive manipulation of administrative and semi-judicial bodies such as government watchdogs, and so are directly relevant to the weakness of ETS enforcement as currently conceived. Other examples include defunding and or destaffing a government watchdog (as Howard did to the Human Rights and Equal Opportunities Commission²³); disbanding and recommissioning a watchdog minus 'undesirable' elements (as was done to Jim Staples²⁴); or most simply appointing mates and cronies to watchdog bodies. Internal to a government, as between different departments, a policy of departments not suing each

²¹ Flanagan R, "Gunns out of control: The tragedy of Tasmania's forests" The Monthly No. 23, May 2007. Available online www.themonthly.com.au

²² Flanagan R, "Gunns out of control: The tragedy of Tasmania's forests" The Monthly no. 23, May 2007.

²³ Summers A, 10 Dec 2007, Seventh Human Rights Oration, Byron Bay Institute; text available at www.thebyronbayinstitute.net, "In 1996, the Howard Government defunded HREOC by... 40%. This meant that one third of the staff had to go. At the same time the human rights branch of the Attorney General's department had its staff cut from 21 to 5."

²⁴ Kirby M. "The Removal of justice Staples – Contrived Nonsense or Matter of Principle?" (1990) 6 Aust. Bar Rev, pp1-48.

other can also exist²⁵. On this note it is well worth remarking that Profesor Garnaut's proposal for funding his proposed watchdog – the Independent Carbon Bank – namely funding it from the pollution permits it sells, invites a classic case of co-option. It means that the watchdog depends for its funding and ongoing functioning on perpetuating the very ill that it is supposed to be stopping! All but the saintliest of bureaucrats –just like the rest of us - prefer not to do themselves out of a job, after all. This is one more reason why a non-government or private back up mechanism is required.

IV QUESTION

How then can 'pollution scarcity' or an impregnable kind of enforcement of a limit to pollution be kept over the long term? Firstly, given the susceptibility of governments to the corruption temptation, and secondly given governments' desire to win elections and so keep votes, and therefore jobs in key seats?

The Gunns episode puts the key question more starkly: *How can one ensure that a reluctant or even a hostile government of the day (i.e. one that has been bought out) be obliged to protect the long term biological basis of the market, of all of society?*

That is the key question that needs to be answered in order to ensure that 'pollution scarcity' enforcement is credibly dealt with. If that can be done, then it can cure the crucial enforcement aspect of the ETS.

Answer: Open up the Government Monopoly

As suggested above, the answer I propose is to use open standing to open up the government monopoly on enforcing or protecting pollution scarcity. From the point of view of fixing ETSSs, the self-interested, strategic plan by firms such as Gunns *can only work because of the government monopoly on protecting the environmental basis of the market*. If that monopoly can be opened up, the firm is faced with the problem of who to buy off, if there are a number of potential enforcers around: The greater the number of potential enforcers, the greater the cost of corrupting the process. If nearly everyone is a potential enforcer, then the cost of effectively corrupting is made so high that the game is not worth the candle to the corrupting firm. It becomes cheaper to simply bite the bullet and invest in greener technology so as to avoid inappropriately polluting.

Now, to a certain extent it is true that open standing has already been tried, and it hasn't really improved things very much. This, as far as it goes, is valid criticism. So, it provides a good starting point for analysis. I will examine this criticism and dismiss it, by reference to the Shoalhaven Paper Mill case examined above. What does solve the question posed, I will suggest is combining open standing, not with regulation, but with rights.

Why Open Standing plus Regulation isn't enough

The 1992 Shoalhaven Paper Mill case (*Brown v Nth Broken Hill and EPA No.2 (1992) 78 LGERA 119*) examined above, shows why open standing with regulation isn't enough

²⁵ Pinch D, *Prosecution Guidelines: A commentary* Australian Institute of Crimnology Publication, p8. viewed 27 Mar 08 www.aic.gov.au/publications/proceedings/26/pinch.pdf

protection. In NSW volunteers have open standing to bring cases for alleged breaches of environmental law (s123 EPAA).

If the opposition to the interested volunteer is a major corporation with the ear of the minister, then as in the Shoalhaven case, the Minister can simply re-write the regulations, without even needing to run them past a vote in Parliament. Or, as in Tasmania, if a corporation buys out both the Government and the Opposition, they can virtually write the legislation that suits them themselves.

So, if you are the interested volunteer with open standing to sue for a breach of environmental law, but your opposition, a big bribing corporation decides what goes onto the books in the first place, then your standing can be as open as can be, but it will always be in vain, in terms of meaningful outcomes.

More Is Needed

So, a way must be found to bind the government of the day; *and not only them, but future governments too*. If future governments can also be bound, then that solves the problem of the apocryphal government of saints doing all the right things and putting in all the unpopular corrective horse-pill environmental reforms and new legislation required; only to be turfed out of office by an angry electorate, at the next election.

After the change of government, the other side, knowing the unpopularity of the ETS, may well just repeal the enabling legislation. Alternatively, they could simply defund or destaff the government pollution enforcement agency – possibly quite subtly or slowly, out of the limelight. It would be most technically skillful for the incoming government to quietly oversubscribe allocations of permits to its political supporters. This kills two birds with one stone, because it undoes the ETS and simultaneously allows your quick moving political mates to make a good profit.

The key question then is – *what if anything can stop governments, present and future from legislating just how they want to?* Remember that – as the Shoalhaven and Tasmanian examples show - the ballot box seems to make the problem worse, rather than better unfortunately. This may change in the future with further voter education. In the meantime is there a better possible solution?

V HOW TO ENSURE RELIABLE, SECURE, LONG TERM ‘POLLUTION SCARCITY’

What is required to make a pollution market work is a back up enforcement mechanism for those times – surely inevitable over the long term – when government regulation and enforcement on its own will fail. Another way of putting the same point is to say that the current government monopoly on reducing harmful pollution needs to be opened up; so that when government based mechanisms fail, other *private, non-governmental* ones can step in as a failsafe. Only with a private non-governmental back up can ‘pollution scarcity’ be ensured over the long term, as otherwise government failures will be exploited systematically by bribing firms or individuals to provide a competitive

advantage, without a non-governmental review of the bribed government's decision being possible.

The kind of pollution is also relevant

In addition to this, the kind of pollution produced by each economic actor is also relevant. If the waste produced is directly assimilable by the receiving plants and animals, then no harm is done – on the contrary, those plants and animals can feed on that waste. In this way the normal operation of an ecosystem is deliberately mimicked: the waste of one creature becomes the sustenance of another²⁶. This is Herman Daly's 'output rule'²⁷. As I have foreshadowed in the introduction, the enforcement mechanism I propose is liability based, so, anthropogenic waste that constitutes digestible food for the receiving nonhumans does not attract liability²⁸. However, if the waste is not assimilable, then there is a problem, both in the immediate term, and building up increasingly over the medium and long terms. That is why non-assimilable waste attracts liability in the immediate term, in order to stop build up as the aggregate of a multitude of small everyday economic transactions.

Solution doesn't rely on Altruism alone

Arguably, under the present enforcement rules of a ETS, government enforcement officials are required to be more ethical than those they govern, because government officials are supposed to be able to continually resist the temptation to exploit for personal gain the (present if illegal) opportunities that their position affords them – *all without being independently overseen in any way from outside the government*. I'm not sure that we humans are made of such stern, self-denying stuff, even in the case of police or other government officials. The unreviewed enforcement aspect of an ETS as currently conceived perhaps expects too much of human nature – no one is perfect after all.

In the enforcement mechanism I propose to cure ETSs, environmental protection can work through people defending their own economic interests- not only, or not necessarily through altruism. You could sue a business competitor for example in order to protect capital investments you have made in new greener, less polluting technology. This addresses the problem of some economic actors picking up greener technology faster than others. Here's how it goes:

In the ETS enforcement as currently conceived, if I understand correctly, only government enforcers can prosecute pollution limit breaches –which they will not do, if

²⁶ In an ecosystem virtually the only waste is waste heat. See Stefan Baumgartner, 'Thermodynamics of Waste Generation' in Katy Bisson and John Proops, *Waste in Ecological Economics* (2002) 13. Mimicking nature was used by Tikopians, in tree planting patterns: See McDaniel and Gowdy, *Paradise for Sale A Parable of Nature* (2000) 152. A similar practice of 'edible landscaping' has been used in Chatanooga more recently: See Ted Bernard and Jora Young, *The Ecology of Hope: Communities Collaborate for Sustainability* (1997) 64.

²⁷ Daly H *On Wilfred Beckerman's Critique of Sustainable Development* Environmental Values 4 (1995) 49-55@50. The only difference, as will be seen in the 'Placing the enforcement mechanism in the Sustainability debate' section below, is that what Daly calls 'natural capital'; I will call that 'natural non-capital.'

²⁸ Examples are hydrogen fuel and composting.

they have been bought off. However, with the private enforcement back up I suggest, with open standing plus the nonhuman right not to be polluted, anyone can step in to sue in the right of harmfully polluted nonhumans: anyone can protect a clean environment; but no one can legally pollute it in a non-assimilable manner.

So, as an already greener, early moving competitor of the slow moving, more polluting businessperson, even if your competitor has bought off the police and EPA, you can still step in as a private volunteer and sue the corner cutter, or slow mover in the right of the (rights owning) plants and animals damaged by his/her pollution. If the slow mover²⁹ is found to have damaged them, s/he becomes liable, and incurs extra costs, which you do not, since you've already moved to greener less polluting technology. If your competitor is unscrupulous, s/he is not for all that necessarily stupid. The slow mover will realise that *even if s/he can buy off the police and the EPA, or even the legislature (as in the Gunns example above³⁰) s/he will be unlikely to be able to buy off his or her business competitors who are not cutting corners economically by remaining with older, more polluting technology. Finally, even the executive arm of the government can be sued, if it is the slow moving pollutor.*

This creates a new – but greener, less polluting - level playing field, but where everyone has to use the greener appropriately polluting technology, because you can sue your competitor to ensure that s/he also is obliged to use the same level of less polluting technology, in order to create the appropriate assimilable kind of pollution. Unlike the current ETS, *this is not due solely to government decree and regulation*, but because anyone can be sued by their competitors, due to open standing plus the right not to be polluted inhering directly in nonhumans. So, volunteer enforcers don't have to act altruistically – they could be simply protecting an investment they have already made in greener, less polluting factories and technology.

And no altruism is required of government officials either, the temptation to exploit the illegal opportunities that their job affords them is removed, because there are so many potential enforcers out in the community with the ability to, and an interest in (due to personal or business capital investments in greener technology) suing on any suspected cases of corruption.

How can one Bind Future Governments, so that the Corruption Problem is Solved over the Long Term, and not just in the Immediate Term?

In a liberal democratic society, future as well as present governments are bound by constitutions and by property law. An example is the 'just acquisition' provision (s51(xxxi)) of the *Australian Constitution*, which obliges the Commonwealth to compensate fairly if it compulsorily acquires a property interest. Accordingly, the Constitution and property law reform offer an avenue for binding not just present, but future governments also, since Constitutional law takes over ordinary legislation, this means that future governments can simply repeal or legislate around parts of an ETS they find inconvenient.

²⁹ A person or company who moves slowly to invest in and use newer greener technology.

³⁰ See fns. 9-11 above and text accompanying.

While a constitutional referendum is admittedly difficult to bring in, it is also just as difficult to change again later. The great advantage it has however, besides binding future governments, is that it can provide unparalleled interhuman political legitimacy, because of the great proportion of popular consent required.

Combining property law and constitutional law results in the sought for answer, which is granting rights (in this case the right not to be harmed by anthropogenic pollution) to plants and animals that provide the ecosystem services – clean air, attracting rain, moderating the climate - that we all utterly depend on.

Granting the Right Not to be Harmed by Anthropogenic Pollution to Nonhumans
Constitutionally granting legal rights to plants and animals, enforceable against humans does solve the interhuman problem of by providing impregnable scarcity of non-assimilable pollution because governments beyond the current government of the day will be bound unless and until a constitutional referendum changes it once more. That is because a constitutionally granted right defeats ordinary legislation. In this way the major weakness in an ETS is remedied, but without resorting solely to central regulation.

VI VOICELESSNESS OF NATURE

The inability of nonhumans to talk, and so litigate a court case is not a formal legal barrier to a case being brought on their behalf. The nonhuman situation is exactly parallel to a lawyer defending a (human) client who is being held incommunicado. By definition the lawyer cannot have been briefed by his or her client; yet s/he is permitted to bring a case in Habeas Corpus on behalf of the 'voiceless' client³¹.

VII SUMMARY SO FAR

When a plant or animal has the right not to be polluted by a human, and the pollutor can be prosecuted by a government agency, or failing them, by other individual volunteers, then a failsafe method of providing polluting scarcity has been arrived at. Remember that all this has been gone through in order to arrive at the same goal that Professor Garnaut was aiming at:

Without a scarcity constraint, a market will not exist as permits have no value and there will be no demand for those permits-

- along with his additional requirement that the government enforcement mechanism chosen must be credible in the eyes of those putting their money into these markets and into greener technology.

Credibility or faith in the enduring nature of the rules and institutions that define the ETS, is essential for its ongoing success. Markets can quickly collapse if their credibility is shaken. This is all the more germane for markets that owe their existence solely to government decree.

³¹ Clark D, *Habeas Corpus: Australia, New Zealand, the South Pacific Federation Press, Sydney, 2000, pp140-1.*

As an ETS exists entirely at the behest of government, market participants will be constantly alert for any early signs of shifts in policy, management protocols or operating procedures that potentially undermine the integrity of the market. There will also be incentives to press for change if there appears to be a chance that the rules of the scheme can be influenced.

So, I hope the reader will agree that I have shown in section three above, how the enforcement weaknesses of an ETS can be systematically exploited by parties interested in doing so. Viewed all together, particularly the governmental weakness of needing to allow pollution to retain votes these weaknesses clearly, I would argue, vitiate the ‘pollution scarcity’ that the ETS itself depends on.

And I hope that the reader will also agree that I have shown how to plug these holes in pollution scarcity as follows: by constitutionally granting the right not to be harmed by anthropogenic pollution to nonhumans, combined with open standing, which overcomes the difficulty of how to bind present and future governments, even when they are reluctant to protect the long term biological basis of the market. This is because even a bought off government who has destaffed and defunded their environmental watchdog, cannot stand in the way of early moving business competitors suing slow moving competitors for harmfully polluting nonhumans; nor can such a government stand in the way of volunteers doing the same in the absence of business competitors. Those who sue, do so in the right of the harmed nonhumans, but cannot be denied standing by the courts or government of the day because of the open standing provision. This means that pollution scarcity protection is ‘non-contingent’; it doesn’t depend on government goodwill, nor that of business. Only one willing volunteer is needed at the outside.

In short anyone can sue in the right of harmed nonhumans, and the government cannot stop them from doing so, but no one can harm right owning nonhumans without incurring liability directly to the harmed nonhumans. This means that harmful pollution can be cut out over the long term in a reliably enforceable, effective manner, even in the teeth of a hostile government; and in a manner which does not do inordinate harm to individual human political liberty either.

This achieves the same goal that Professor Garnaut aims at; but in a politically and practically achievable manner: In a way that does not cast out the overshoot³² beezlebub with the regulation devil. A method that manages to retain individual political freedom rights over the long term, while also providing the protection from, or limit on pollution required. It is also reassuring to note that there is a long standing legal and economic precedent for the kind of reform that I propose.

[Two sections of academic interest deleted for brevity’s sake]

X WHAT KIND OF RIGHT IS GRANTED TO NONHUMANS?

Same kind of protection used as to protect humans

Legally, the integrity of the human body is protected by traditionally by three, or nowadays four ‘torts’. That is, four different kinds of cases that can be brought in court to

³² In this context, overshoot means overpolluting, resulting in either toxic build up, or global warming.

protect physical harm done to your own body. Those four torts are the torts of assault, battery, and wrongful imprisonment, with the fairly recent, and rapidly growing addition of negligence. As noted, I suggest employing precisely the kind of protection to provide ‘pollution scarcity’.

So, battery and negligence are proposed to protect rights holding plants and animals, in order to stop the wrong kind of pollutants from exiting the human-to-human economy and entering the nonhuman-to-nonhuman ecosystems that support the market. The dictum *actio personalis cum persona moritur* ‘a personal action dies with the person’ should be legislatively reformed, as it is in interhuman cases of wrongful death³³. (Assault is not used, because an element of proving assault is to prove fear in the person threatened³⁴, which is presumably impossible in the case of plants).

These torts enforceable against human agents create a filter between the two human to human economy and the rest of nature to rest of nature biosphere. Over the long term, toxic build up needs to be stopped. Climate can be moderated and rainfall attracted by growing greenery locally. Greenery can also stop soil erosion, increase the water retention and help maintain the water table – and greenery is help to thrive, particularly over the long term, by the right not to be polluted by anthropogenic pollution. It is not however guaranteed by this right alone, as nonhumans that only own the right not to be harmed by pollution can still be legally killed by more direct means. Other rights inhering in certain essential nonhumans can guarantee that aim, but that work is beyond scope here³⁵.

XI THE DIRECT ECONOMIC INCENTIVE: HOW WOULD IT WORK?

Practically, the enforcement mechanism proposed would have the same economic effect that passive smoking litigation has had. This is a current example of a single precedent spreading rapidly to become industry wide practice, via litigation.

In terms of conducting litigation, harming nonhumans with airborne and waterborne nonassimilable pollution is parallel to passive smoking, so one instructive case from NSW is the *Port Kembla* case³⁶. In that case the plaintiff won in negligence³⁷. Causation was the plaintiff’s most difficult obstacle. Causation should not be more difficult to show in the case of nonhumans, although problems encountered in the *Port Kembla* case such as the scarcity of epidemiological research will probably

³³ For the NSW legislation overriding the roman maxim see the *Law Reform (Miscellaneous Provisions) Act 1944* (NSW). See for other jurisdictions in Australia Harold Luntz, *Torts Cases and Commentary* (5th ed, 2002) 602. In the mechanism proposed damage to nonhumans is recoverable, but via real living value restoration, not via (monetary) damages. See section XIV ‘real living value’ below.

³⁴ *Gambriell v Caparelli* [1974] 54 DLR 661-7@664.

³⁵ For more on the other ‘what humans take out of nature’ half of the economy see Keenan S “The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation”, unpublished.

³⁶ *Sharp v Guinery t/a Port Kembla RSL Club* (NSW Supreme Court, McClellan J, 28 March 2001); for background to the case see Peter Semmler QC and Michael Heath, *Smokescreen: The Sharp v Port Kembla RSL Passive Smoking Case* (2001) pp14-21.

³⁷ *Sharp v Guinery t/a Port Kembla RSL Club* (NSW Supreme Court, McClellan J, 28 March 2001) NSWSC 336 @ paragraphs 2, 19, 21.

be worse in the case of nonhuman species, at least initially. Should causation problems prove insurmountable, strict liability may resolve the difficulty.

In NSW, that one single successful case - the *Port Kembla* passive smoking case led to a rapid industry wide change in business practice, where pub and club owners were eager to avoid liability to employees, and so decreased and eventually cut smoking entirely out of pubs. This change was followed by changes in legislation, but the change started with litigation about employees' health, and the legislation banning smoking came later³⁸.

Insurance Effect

Next, the availability of insurance would presumably have the widest effect on actual business practice. Once a business practice is found to attract liability, it becomes extremely difficult, or expensive to obtain insurance (and so remain in business) without changing the relevant business practice.

Any business practice that increases the risk of liability measurable in dollar terms becomes much more difficult to insure against. As the risk of being sued increases, so premiums increase. It may still be possible to obtain insurance for the risk carrying activity, but premiums are likely to become so steep, that it may well be cheaper to change over to less risky, less (non-assimilably) polluting technology. And in cases where that technology does not yet exist, well that pressure from the insurance industry's risk management will ensure that there is a big direct economic incentive for entrepreneurs to research and develop technology that fulfils the same need for the same goods and services as before – but in a less polluting manner.

XII CRIMINAL SANCTIONS FOR EGREGIOUS CASES

The emphasis in ETSs is rightly placed on civil law; egregious cases of harm to nonhumans, however, should be punishable by criminal sanction (just as the interhuman torts that comprise trespass to the person³⁹ are criminal offences as well as torts). This is important as a deterrent, for example in cases where pollution is deliberately engaged in, say as a political or willful act – simply for its own sake.

XIII DOMESTIC LAW ONLY

What I propose is only directly relevant to a domestic ETS, because a granting a new right is involved – and that presumably is the province of domestic, not international law. So, one important problem the enforcement mechanism I propose does not address is international competitiveness⁴⁰. If one jurisdiction grants nonhumans a right not to be

³⁸ The case illustrates the huge economic flow on effect from setting a precedent. For detail on the flow on see Semmler op cit, and Simon Chapman, 'Advocacy in Public Health: Roles and Challenges' (2001) Vol 30 *International Journal of Epidemiology* 1226.

³⁹ The torts that protect the physical integrity of the body: Assault, battery and wrongful imprisonment.

⁴⁰ Here the historical analogy with the Abolition of Slavery is accurate: Nations that curtailed or abolished the Slave Trade suffered economic loss from that decision, until Abolition measures were more widely taken up internationally. For an older analogous example of the kind of leadership needed, see Pitt the Younger's speech in the House of Commons on 3 April 1792: For an excerpt, see William Hague, *William Pitt the Younger* (2004) Harper Collins, London, at 302-3.

polluted but another does not, the first loses competitive advantage in the immediate term, but gains a stronger assurance of its future biological security. This is reversed for the other jurisdiction.

That course may sound overly sanguine; my rejoinder would be that ‘pollution scarcity’ can only be reliably secured by binding present and future governments with a nonhuman right not to be polluted and open standing. Initially at least, this can only be done one government at a time, so some must show some leadership. Later, Treaties or Free Trade Zones implementing the proposed mechanism together in a number of jurisdictions may resolve this international issue.

XIV REAL LIVING VALUE

In a liability based model, if plants and animals can’t use money, what kind of liability or compensation for harm done is appropriate in the case of nonhumans that produce vitally needed ‘eco-system services’?

What one is really interested in is the long term biological capacity of essential nonhumans to keep on producing clean air and moderate the climate and attract rain – all things that money *per se*, i.e. specie or currency, cannot do. So, when nonhumans are damaged by human produced pollution, they must be cleaned up physically or physically restored. This directly and physically restores the biological capacity which is what one needs to retain over the long term. This living biological capacity is what I mean by ‘real living value’, and its restoration is therefore required as a legal remedy, in the mechanism I propose to cure the enforcement weakness of current ETSSs.

Clean up costs are often much more expensive than prevention costs; this furnishes the economic incentive for greener, less polluting technology, (or technology that supplies waste that is designed from the beginning, to be either food for the receiving ecosystem, or alternatively recyclable into humanly usable or saleable goods).

Well established legal remedies

Fortunately for the enforcement mechanism I propose, using real physical value as a legal remedy, instead of (monetary) damages is well established law. Remedies of this kind include Habeas Corpus where the prisoner named to be released cannot be substituted for by another prisoner or prisoners, nor by money⁴¹; the modern form of detinue (in NSW, s93 *Supreme Court Act 1970*) which allows the court to order delivery up of the chattel specified, (rather than giving the holder of the chattel the right to elect to pay the exchange value of it instead, as was the case in the original unreformed, common law version of detinue)⁴²; thirdly, the

⁴¹ This is the in specie remedy of longest standing, which in its modern human rights protecting role dates from the second half of the Seventeenth Century. See William Duker *A Constitutional History of Habeas Corpus* (1980) 52-62. For greater detail on this period see Maxwell Cohen, ‘Habeas Corpus cum causa: The Emergence of the Modern Writ II’ (1940) 18 *Can B Rev* 172.

⁴² This legislative reform occurred in 1854 with the *Common Law Procedure Act* (UK) s78, which is the antecedent to the NSW provision.

equitable remedy of specific restitution, which allows recovery of the specific chattel in question, rather than money in lieu⁴³.

These well established remedies allow real living value – living plants and animals in the ground - to remain free of non-assimilable pollution over the long term. This in turn, guarantees that its biological basis can continue to produce required ecosystem services protected from the wrong kind of pollution⁴⁴. And all this can be done in a way which preserves individual political liberties, and so a sphere for civil liberties and cultural life; which does not appear to be the case for ETSs as they currently stand.

XVI SEEN FROM THE SIDE OF POLITICS: THE DANGER TO INDIVIDUAL LIBERTY ADRESSED

One main motivating point remains to be addressed - the concern with individual negative freedom rights. As was stated, a central bureaucracy for policing greenhouse pollution and permit compliance, as an ETS without non-governmental review requires, poses great ongoing risk to individual political and civil liberties. So, exactly how does the remedy proposed of open standing plus the right not to be polluted for nonhumans remedy this political problem?

If a government or ETS enforcement agent came around to a private business, they would have to point to some material damage done by the business to polluted nonhumans and take that to court to prove that that damage was in fact done by the owner or his/her employees or agents. This provides some checks and balances for the individual people concerned, so an individual knows exactly where and why his or her economic activity is being interfered with by the government.

The Crown bears the onus of making out its case on the balance of probabilities normally for tort based liability (or beyond reasonable doubt in a criminal case). Any interference with that person's political and economic liberty has to be tied by the Crown directly to the alleged damage to necessary nonhumans and cannot legally go beyond that. The person interfered with has a forum to hear the Crown case, and defend him or herself, rather than simply facing bureaucratic action that could well be arbitrary, without necessarily a chance to hear the Crown case, or respond on matters of substance.

XVII A MARKET FOR BADS?

The notion of a market which utterly depends on regulation is suspicious. In a normal market you sell something that other people want or need, and they buy it for that reason, which comes from their own needs or personality. That is not the case in an ETS.

⁴³ The line of cases establishing Specific Restitution starts with *Pusey v Pusey* (1684) 23 ER 465; the leading NSW case is *McKeown v Cavalier Yachts Pty Ltd* (1988) 13 NSWLR 303. See Roderick Meagher William Gummow and John Lehane *Equity: Doctrines and Remedies* (4th Ed, 2002) 823-9.

⁴⁴ Note that protection from pollution does not mean that those nonhumans cannot be killed by other means. That question pertains to the other half of the economy – what we humans take out of the rest of nature. That question is beyond scope, but is addressed in Keenan S “The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation”, unpublished.

We are beginning to realize that we humans can no longer afford to take the rest of nature for granted; either as a supposedly unlimited sink for our human pollution, or an supposedly unlimited cornucopia for us humans to continually take out of without actively replenishing.

Now if we are to actively care for nature to some extent at least – if only in order to protect ourselves⁴⁵ – what does that mean for our economic relations, not just amongst ourselves – between humans, *but just as importantly between humans as a whole, and the rest of nature as a whole?* Environmental Economist Herman Daly calls this the question of maximum environmentally sustainable macroeconomic scale⁴⁶. In other words, how much nonhuman nature do we need to preserve from our own economic depredation, over the long term – in order to preserve the long term biological security of the market itself?

A related but distinct question is the *enforcement question* - As between humans how can we ensure over the long term, that that part of the rest of nature which is necessary for human ends or purposes, can be preserved over the long term, while still allowing for individual political and economic liberty?⁴⁷ These questions are only answered here for half of the economy – in respect of what we humans put back into the rest of nature, but answering the question for the other half of the economy – what and how much we humans take out of the rest of nature, I address elsewhere⁴⁸. So, this paper presents precisely half the answer to Daly’s question of maximum environmentally sustainable macroeconomic scale.

Protecting the Physical Integrity of Individual Humans, And of Essential Parts of the Rest of Nature

To use the age old metaphor of the body politic – one can say that the rights of the lungs of the body politic not to be polluted, take over the negative freedom rights that otherwise exist, of individual members of that polity. Some individual freedom is sacrificed it is true, but a great deal, a biological basis secure from pollution is gained in return, both upon implementation and into the future after that.

⁴⁵ Which is the self-interested anthropocentric line defended consistently through out this paper. A moral biocentric argument is certainly possible, but is beyond scope here. See the ‘Future Directions for Research’ section of Keenan S “The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation”, unpublished.

⁴⁶ This is the question of how big an economy can fit into a given ecosystem on a long term environmentally sustainable basis. See Herman Daly, ‘Elements of Environmental Macroeconomics’ in Robert Costanza (ed), *Ecological Economics: The Science and Management of Sustainability* (1991) at p36. Daly illustrates the problem with the image of an economic Plimsoll line, where the size of an economy is like the weight of a cargo in a ship. If the cargo is too heavy, the ship will sink. Similarly, if the size of an economy is too great, the ecosystem(s) it is in, cannot support it and the economy crashes, or ‘overshoots’.

⁴⁷ This is Herman Daly’s question of the policy instrument needed to enforce maximum or optimal environmental macroeconomic scale: see previous fn. This policy instrument is set out in Keenan S “The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation”, unpublished. The same basic enforcement mechanism presented here is used there also.

⁴⁸ Keenan S “The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation”, unpublished.

Absent the biological integrity of the long term biological basis, each of our individual physical integrities is equally endangered. So if firstly the two integrities are basically the same, or at least highly physically or biologically interdependent⁴⁹; and if secondly the basic legal interhuman view is that, in the ordinary course of events you can't contract out of your rights to physical integrity⁵⁰, then the same kind of argument can be made for nonhumans' right not to be polluted by humans .

On this view, the core problem in an ETS is governmental exculpation of self-destruction which shouldn't be tolerated in the first place, let alone profited from. If polluting the biosphere harms all people by damaging the biological basis *that we all utterly depend on for our physical well being*, then how can we justify allowing a government to sell off the right to destroy it with non-assimilable pollution? Surely this is selling off the very biological basis of our lives, our birthright for a mess of pottage.

Just because a government can give or sell permission, doesn't mean it should

If one were to draw an interhuman analogy of officially condoned self-destructive behaviour it would be like a government auctioning off the legal right to harvest human fingers or maim people. If you were maimed or had your finger cut off all your assailant would have to show as a complete defense is that s/he had purchased a valid permit from the government auctions. Just because a government can give or sell permission to engage in certain kinds of behaviour, doesn't mean that it should. Seen in this way, the basic premis of an ETS, namely an exculpatory permit to pollute from the government, in a context of global warming, does seem to be ultimately self-defeating.

Which reminds me of a gem of a story I found about Swiss construction standards for homes after WWII. Ostensibly off topic, but actually right on point:

Not until twenty years after Hiroshima did Switzerland shift its attention to [the possibility of nuclear attack] and begin to design shelters against the effects of nuclear weapons. The Swiss in the nineteen sixties had no idea what such a program would cost, nor did they attempt to work out a cost-benefit ratio, because they saw the benefit as both imperative and infinite, and therefore inexpressible in arithmetical terms. The author Jonathan Schell, writing in a wider and different context, recently expressed the Swiss point of view exactly when he said, "A society that systematically shuts its eyes to an urgent peril to its physical survival and fails to take any steps to save itself cannot be called psychologically well."⁵¹

It is to remedy this sense of warpedness at the core of ETSs as currently conceived, that I have tried to work out a liability, rather than permit based model instead, that can achieve the same basic goals and outcomes economically, and much better outcomes politically and culturally.

⁴⁹ Note that once again this is not a moral argument, but proceeds from physical interdependence. Once again a moral argument can be made, but that is well beyond scope here.

⁵⁰ The exceptions are things like self-defense, surgery, tattooing, boxing and other exhibitions or sports such as pro-wrestling, including spectator injuries – these kinds of activities have been said to fall within "in a undefined and expandable list of 'good reasons'" why consent is a defense to battery. See *R v Brown* [1994] 1 AC 212@227.

⁵¹ McPhee J, *The Swiss Army: La Place de la Concorde Suisse*, Faber London, 1985, pp102-3

[Academic section excised]

Don't need to own the assets, in order to protect the benefit stream

But, using the enforcement mechanism I present in this paper you can ensure the ongoing future benefit stream without having to first own the 'underlying assets'. You don't have to own, or even be able to own the nonhumans that underlie the benefit stream – *it is enough to be able to protect them against all comers*. As long as they are alive and can keep living, with enough water, soil, sun and so on, then thankfully, those underlying nonhumans just keep on providing the ongoing stream of benefits. And that ongoing benefit stream, is what you really want.

By way of contrast, in free market environmentalism, the plants and animals on a landowner's property can be protected against all the world, by the owner if s/he wishes. But those plants and animals have no protection whatsoever against the owner, who after all has the greatest interest in developing, i.e. destroying them; even if they do produce ecosystem services that are of benefit to all humans.

Once you exculpate or monetize nonassimilable pollution, then you legitimize, legalise and even make profitable destroying the living creatures that create the benefit stream. You really do start killing the goose that lays the golden eggs. As in cautionary case of Nauru, it is entirely possible to sell off (monetize) all your land and fauna and flora, invest the lot, and end up losing both⁵². Really learning from one's own tragic mistakes is difficult enough. Learning from another culture's is pure genius.

XVIII CONCLUSION

For the half of the economy that has to do with what we humans return to the rest of nature⁵³ - Daly's output half of the economy - I have shown how to reliably and over the long term achieve 'pollution scarcity' by the use of open standing plus the enforceable right not to be harmed by anthropogenic pollution. This, as shown, cures the enforcement weakness of ETSs and I hope shows the wisdom of treating the physical integrity of the long term biological basis the same way as the physical integrity of individual humans - with rights, to ensure effective long term protection that also allows space for individual political liberty (negative freedom rights. *Just as small 'l' liberalism maintains that individual human liberty is too important to be left up to governments alone, in exactly the same way, I would suggest, the on-going living biological basis of the economy is too important to be left up to governments alone*. If so, it makes sense to protect both the same way.

In the enforcement mechanism I propose, liability is satisfied not by monetary payments, since exchange value does not always and everywhere produce essential ecosystem services – but in real living value. Real living nonhumans always and everywhere produce ecosystem services thankfully, so that is how liability is satisfied.

⁵² See McDaniel and Gowdy op cit.

⁵³ The other half of the economy – what and how much we humans take out of the rest of nature, Daly's input – is addressed in Keenan S "The Manumission Model: How to solve overshoot and integrate ecological externalities without recourse solely to regulation", unpublished.

Individual human political and civil rights are retained, because bureaucratic intervention in an individual's negative freedom right sphere must be tied directly to alleged harm by pollution to rights owning nonhumans, for which the Crown must make out its case in court. This stands in strong contrast to an ETS without check, balance or non-governmental review, which fosters the spectre of arbitrary and unreviewed abuse of centralized bureaucratic power, which can be surreptitiously brought in under the guise of protecting the environment. This huge amount of pure regulation may well solve the environmental problem by dint of unremitting and unreviewed centralized surveillance, but only at an immense cost to individual liberty and civil society. Even in the case of the pure regulation option, it would remain to be seen what the popular response to this gradual stripping of individual rights would be. But why sacrifice hard won individual civil and political liberties, if that is not absolutely necessary?

The enforcement mechanism of open standing plus the right not to be polluted by anthropogenic waste allows both objectives to be achieved in an effective manner. The enforcement weakness of ETSs is solved in a way that is environmentally effective at limiting pollution to biologically assimilable waste, in a reliable and secure manner over the long term, and in a way which is also compatible with the individual negative freedom rights that underpin western political institutions and cultural life.