

# Controlling climate change: Who is to account? Why? And how?

## Some thoughts about MAF's *Sustainable Land Management and Climate Change: Options for a Plan of Action* (Wellington, 2006)

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### Preamble

The government of New Zealand has decided that it must adopt a national stance to address problems created by concerns about global climate change brought on by rising accumulations of greenhouse gasses. This has further prompted the development of a series of policies to detail responses to those varied aspects of New Zealand life expected to be affected. What has brought on this concern about climate change? What kinds of response are being mooted? What sorts of effects will such responses bring?

In response to mounting acknowledgement of worrisome climate change, the unwitting role humans have played in it, and the call to do something about it internationally, the United Nations adopted its Framework Convention on Climate Change in 1992. Following this, the Kyoto Protocol was agreed to by 180 countries in 1997. New Zealand became a signatory in 1998 (United Nations 1998). This Protocol sets down measurable emissions targets designed to ensure that human contributions to greenhouse gas levels in the atmosphere do not further exacerbate the climate change such gasses affect. In particular, the accepted level set by the signatories was their individual 1990 greenhouse gas emission levels. They were all meant to have achieved this level by 2000, but did not. New targets were set to be achieved during the so-called first Kyoto Commitment Period which runs from 2008 - 2012.

Not only has New Zealand already assumed international commitments under the Kyoto Protocol; it appears to have taken to heart concerns of both an ethical and pragmatic nature. These latter take in perceived environmental obligations as such at a national level, as well as the need to have an appropriate and timely response to predicted threats to New Zealand's own environmental integrity with its consequent projected effects upon the country's social and economic stability.

Regarding both the ethical and pragmatic considerations, the notion of sustainability is everywhere afoot, this popular concept having assumed colossal influence as a prime index and indicator of fitting policy directions. Sustainability has come to do double duty in its station as benchmark, serving ethically as a generic environmental virtue adherence to which serves as a reliable indication of generic environmental responsibility (if not also sincerity); but also pragmatically as an umbrella directive for realistically reliable and politically salable economic practices which,

to ensure their own endurance, have now unavoidably to reckon on and factor in environmental cost as it may adversely affect their own self-interests - not to mention the welfare of economically innocent third-parties.

As if never to say 'Die' by playing an entirely defensive, regressive and self-protective hand, there are added optimistic speculations as to how New Zealand may even benefit - that is, positively grow in quite new business and research capacities - by seeking advantage in new markets created as a result of growing worries internationally about impending climate change.

### Some Issues

Whenever talk of new policy directives arises, there invariably emerge new classes of beneficiaries and those not quite so positively advantaged. Optimally, the job of government in choosing new policy is to achieve its well-intentioned national ends as fully and effectively as possible while creating the fewest and least disadvantaged victims along the way. The assumption throughout in forms of government such as New Zealand's is that such policy changes, after all, are not pursued no matter the cost, nor are they rammed through exclusively on the call of greatest, most prompt effectiveness. Instead, they must aim for whatever is understood as overall for the best - whatever that is.

To determine what is for the best, one predictably identifies one's End - or, more manageably, a set of negotiably kindred ends falling within a certain tolerable range. That certainly needs enough clarification and definition to start; hence, the huge attractiveness of talk insistently pegged on measurable quantities of acceptable indicators which can then be shaped by the magical powers of statisticians. In this case, we want to fix an identifiable end-state measured in terms of quantities of greenhouse gas emissions and their accepted equivalents which permit us to demonstrate reasonably precisely the respect in which we have made progress in cutting back to what are accepted as our total 1990 emissions. Suffice it to say, much of the conveniently common reference to emissions levels rests less upon hard data than upon the conventions and consensus which make applied science and the policy resting upon it possible. Establishing and justifying such conventions are controversial enough, but sufficient commitment usually enough paves the way.

Given such conventions, then the real trouble starts, for, with the identified End(s), comes the task of mapping out sets of tolerable Means - a complex brew demanding demonstrably convincing science in league with skillfully workable politics. Intolerable means, unworkable means, means sure to backfire, means sorely awaiting solid evidence

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- these are the easiest ones to concoct, and these need eliminating from the start. So, how may one start to map the feasible? For starters, where not even to contemplate going is one of the discoveries sought by government through the venerable public discussion document.

Since New Zealand's involvement with greenhouse gasses derives, not so much from its carbon-based combustion practices, but largely from its farms and forests, it is understandable why a major public discussion document recently published by MAF - Sustainable Land Management and Climate Change - should concentrate on just those aspects.

Part of my interest here is to examine some of the proposed sets of means considered in that document particularly as they impinge upon forestry. More specifically, I wish to examine the underlying justification for certain proposed options under the rubric of the notion of accountability. Yet more specifically, I am concerned with how one understands the basis for a nation's compliance with certain international concerns; and how one attempts to justify, from the vantage point of general government policy, whatever individual costs may wind up being borne by some of those whose otherwise acceptable, indeed highly approved, practices have become judged, after the fact, no longer to serve certain larger interests; interests which have subsequently been assumed by government for the collective good. Not surprisingly, this is yet another instance of the enduring theme about the tensions that naggingly emerge and re-emerge between persons as individuals going about their lawful business versus individuals as citizens and the call upon them government has under that guise.

What adds, perhaps, to the Same Old Story are the themes now pre-occupying us. For who, a mere few decades back, might have judged it a citizen's fully cosmopolitan responsibility to think hard about the very stuff of the bubbles frothing cheerfully from that fizzy drink? In another vein, we now find and, more tellingly, judge ourselves collectively to blame for even more global harms than we might have anticipated in our absent-minded innocence. Taking this collectivist emphasis to heart and possibly appreciating that its demands can only continue to grow - for who now would dare suppose that we have identified all the collectively-based wrongs we humans have created? - the implications for accountability as such, whether as private person or citizen, are pressing, not to say novel.

## The Global Call to Account - to what End?

The Kyoto Protocol is unlike certain other members of the family of international agreements. It is one thing to add one's national name to an international call for greater regard to be paid to children worldwide, say, or to the welfare of migratory birds or whales - especially when, as a nation, one's record in such matters is impeccable anyhow. Such collective agreements frequently exude an aroma of boilerplate holier-than-thou and so cause no awkwardness or cost to many of their most prominently powerful signatories. Intriguingly, the Kyoto Protocol places blame and accountability everywhere, but most

notably upon those very most prominently powerful signatories. Furthermore, it locates the crux of the blame - the overwhelming greenhouse gas emissions for which we humans are responsible - upon just those aspects of culture which otherwise have been taken to exemplify human material progress and welcome relief from poverty and insecurity. It seems we have overdone it - once again - this time by failing to count seriously amongst our more threatening pollutants some guaranteed content of the very breath we exhale, not to mention the very staff of life of the entire vegetable kingdom!

When it comes to locating serious blame, however, New Zealand simply doesn't make the grade. Where, after all, does the country rank in the Kyoto catastrophe when placed beside the Tyranno-industrialis of, say, the Athabasca Oil Sands development in northern Alberta. New Zealand is very much a minor contributor to any measurable global total such that its emission control compliance may not count for more, of its own, toward climate change control than its non-compliance would count to worsen the global circumstance. Of course, this provides, of its own, no grounds for failing to comply - at least if we adopt some notion of national responsibility based upon the overall value of collective compliance and the measurable contribution thereto such national observance makes. Note, it's not that the overall end to be achieved cannot bear cheaters and corner-cutters; so, here, while we may appeal to the call for global attention made by arguments drawing upon the format "What if everyone cheated?", we cannot thereby rule out any considerations as to why we, in particular, small fry that we undeniably are, shouldn't cut the odd corner. This becomes particularly pertinent an option given not only the considerable differences of national contributions to the global problem but also the failure of some of the worst offenders - such as the United States - to have signed the agreement to start.

So, given that New Zealand's compliance with Kyoto targets will constitute some palpable cost to the country's current bounty and that its non-compliance would not, of its own, noticeably worsen the global condition, why bother at all?

There are at least two grounds for compliance, only one of which is given voice in the discussion document. Consider the unvoiced basis an appeal to what we may call 'Environmental Nobility', rather the Gentleman's code; viz., that it is simply no longer becoming for any nation - not to say any person - to act in so needlessly profligate a manner as to contribute to fouling this singular home of ours, the Earth, to which we owe a recently identified allegiance and regard. This is given no voice, not necessarily because it cannot be defended as a worthwhile outlook in principle, but, more understandably, because it smells of just that holier-than-thou perfume so beloved of those nations with cash in the bank and a car in every drive. As for the MAF document, it draws upon unadorned Realpolitik; viz., "to develop policies that reduce our greenhouse gas emissions and so position us well internationally to protect our economic and trade interests." (Ministry of Agriculture and Forestry 2006).

Note, it is clearly not thought untoward for signatories to Kyoto to express such national self-interest as the governing motive - at least in nationally-based discussion documents. After all, national governments have national well-being as their first responsibility and must be so seen internally. If it so happens that the exercise of such responsibility calls for certain concessions to third parties, in this case an international body, so be it. Without such prominently expressed national self-interest at the apex, no call for local concessions would likely succeed. Note further, such compliance for whatever self-serving ends may also at least be consistent with just those ethical interests promoted under the banner of environmental nobility. In brief, whatever environmental ends, more distant in space and time, may be served by collective individual compliance, the reasons promoted by government locally likely cannot afford to give them much, if any, prominence.

National self-interest being at stake to warrant the internal costs to be borne, the onus then falls upon the government selling compliance locally to show just how and to what extent the reduction of emissions indeed serves "to protect our economic and trade interests". Here one cannot but suspect that whatever science we counted on to measure emission rates proper fails to measure protected units of economic and trade interests. Certainly, there aren't any analogously rigorous causal indices - for, come what may, any serious explanations we offer for strengthening or weakening economic and trade conditions will depend upon a wide, complex and often unwieldy web of causal factors amongst which Kyoto compliance may indeed figure, but to just what extent we are not on sure enough ground to say. On top, given that this factor - potential threats to the security of economic and trade interests as a consequence of failing to comply with Kyoto - belongs entirely to some speculative future, one without similar precedents, we've rather little substantial on which to base our self-interested fears.

There's nothing new here regarding projected policy. Odds are predictably called on horse sense options and bets hedged on favouring cooperativeness such as: 'Better, all told, to be seen to comply than otherwise to preserve existing benefits because we're likely heading into a world charging a carbon tax'; or, even heady expansionism, as touted in the discussion document which enthusiastically speculates that 'compliance "could create tremendous (overseas) business opportunities ... and facilitate the creation of markets for emission reducing technologies" (Ministry of Agriculture and Forestry 2006).

The moral of the story above is simple: it's much easier, whatever the obstacles, to measure the rise and fall of CO<sub>2</sub> and methane emissions than it is to correctly predict the effects, let alone their precise extent, of policy compliance on international economics and trade. This is perhaps why the promotion of compliance is otherwise reinforced by a greater range of locally perceived benefits for which far more convincing evidence exists. So, for example, among the 'co-benefits' (i.e., beneficial side effects) of afforestation are included "flood protection, erosion control, water quality

improvement and biodiversity enhancement" (Ministry of Agriculture and Forestry 2006). Grander advantages yet are "enhanced public health, reduced energy wastage, enhanced energy security, improved air quality" and more which are seen to accompany "climate change action" (Ministry of Agriculture and Forestry 2006); notably, Kyoto compliance. We have here, in brief, a veritable bouquet of hoped-for benefits - some international, others local, some individual - which the discussion paper promotes the sum total and variety of which is bound to overwhelm the difficulties any such compliance will surely create. These putative advantages merit a closer look.

### Benefits and Co-benefits

One theme lurking throughout the discussion paper designed to marshal support for Kyoto compliance has almost the ominous 'Lose-Lose' feel of a 'Damned-if-we-Do-Damned-if-we-Don't' quality about it. We are effectively given two scenarios, both of which may be realized together. They are: either we are headed inexorably for some harmful form of climate change which will force us to change our current commercial and domestic habits if only to enable us to retain some vestige of what we already value, and/or, we are headed inexorably into a political and economic environment which, given its expansive 'Green' sentiments directed at forestalling global warming, will force us to demonstrate our matching sympathies by enacting environmentally sensitive policy lest we risk a form of international ostracism and thereby forfeit our good name as a reputable trading partner. The message comes from both corners; from the Earth which will continue warming up whatever we do and impose on us changes in rainfall and sea level which will inevitably disrupt our comfortably established patterns of life and commerce, and, from our essential foreign customers who will impose upon us carbon charges or worse for our misconduct.

Alone, these threats would seem to supply cause enough to adopt domestic policies designed to address them. For even if the impending climatic disasters predicted for the reasonably near future fail to materialize quite as catastrophically as foretold, we are sure to suffer the policy demands placed upon us by powerful trading nations which have committed themselves anyhow politically and economically to environmentally respectful values.

But Sustainable Land Management and Climate Change is scarcely a weary concession to the inevitable. Indeed, it works to transform the changes in store into a near 'Win-Win' mood. At least, the document presents the angle that the pressures to conform to new aspects of environmental regard for greenhouse gas emissions - whether in response to the Protocol or climate change itself - create or accelerate at least three value-added dimensions to the nation which, it is intimated, might actually leave us better off as a whole than they otherwise were in the days when climate could be counted on as one relied upon one's trusty Labrador. These positive aspects are: (1) wholly new prospects for exportable technological and professional expertise related to the control of greenhouse gas emissions;



(2) the earning of emission allowances through afforestation schemes which have, all along, contributed handsomely to the country's export trade; not to mention (3) the co-benefits, benefits which exceed those of the original policy, which newly forested land provides.

Nothing is ever as transparent as robust optimism suggests; so, it's advisable to record the complications as they arise.

Regarding (1), described as "capitalising on business opportunities" (Ministry of Agriculture and Forestry 2006), this 'Pillar 3' of the government's strategies is very briefly sketched and, likely, is meant to catch the eye of a small but enthusiastic innovative community. That said, nothing is mentioned about the universal competition sure to arise over just such opportunities. The encouragement is unquestionable, notwithstanding the heavy reference to mere possibility: "If such technologies can be developed successfully, they may find ready markets in countries with strong pastorally-based agricultural sectors - for instance, Australia, Ireland, Brazil, Argentina, and parts of Africa." (Ministry of Agriculture and Forestry 2006). What remains unacknowledged are all those equally innovative Australians, Irish, Brazilians, Argentineans and Africans who have that local edge. Best, then, not to bank on such foreign windfalls nor to factor it into the country's palpable benefits-in-waiting.

Regarding (3), the co-benefits most frequently mentioned are "flood protection, erosion control, water quality improvement and biodiversity enhancement" (Ministry of Agriculture and Forestry 2006), typically associated with increased afforestation. What strikes immediately about these co-benefits is that, with the possible exception of biodiversity enhancement, they would have to have been seen to eventually anyhow, and so rank only gratuitously as benefits. That is to say, if carelessly destructive, however innocent, human activity has created problems with floods, erosion and water quality, then it seems at best mildly precious to portray the reversal of such self-induced misfortunes in the language of 'benefit', as if we are to be as thankful for the undoing of our own ineptitude as we might be for the provision of previously unknown uncompromised good. At least, the language of benefit here somewhat cheapens the proper tally of defensibly value-added results.

Given the immediacy of these impressions, one can ask what underlying purpose reference to co-benefit serves. Can it be simply another item to further reinforce the positive tone willfully present in the document - as if to say we can't really lose out because we've that much more reason to follow on with plans we'd have had to have promoted come what may? Or have we here a sincere belief that genuinely more good - national and beyond - will arise from afforestation than previously because, not only does it counteract environmental debits we have made for ourselves; in so doing, it further earns us newly minted tradeable credits in the world's newly minted environmental-mindedness score chart as regards greenhouse gas emission control? In other words, in planting trees, we are now not merely controlling floods or erosion; we are contributing to the removal

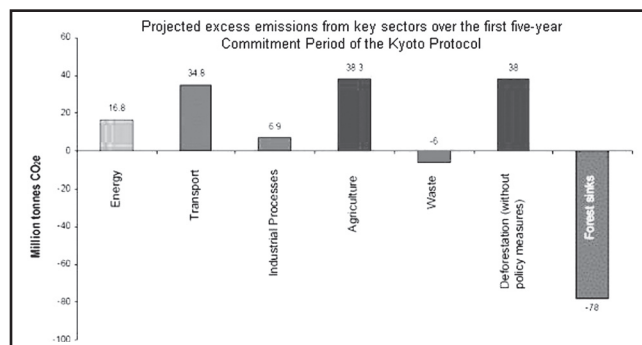
of carbon dioxide through our contribution to "carbon farming" (Ministry of Agriculture and Forestry 2006).

Of course, there's something unsteady, if not suspicious, in such reasoning. One and the same act may be described in many ways. 'Planting a tree' is also 'creating a shaded zone' is also 'providing for lumber needs' is also 'helping to consolidating a hillside' is also 'controlling the carbon dioxide level' ... and so on. We can thus grandly inflate the currency of environmental virtue by piling on the layers of goodness limited only by the reach of our imaginations. This seems too easy a catch on the credit side!

I set aside biodiversity enhancement partly because it doesn't, for many, carry the self-interested obvious immediacy had by erosion and floods. While humans have presumably been troubled by erosion and floods for millennia, impartial non-self-interested valuing of a region's indigenous animal and plant life has a very contemporary ring about it (in the West, at least) and as yet plays no major role in our tally of our collective vital interests. While arguments arise about the critical value for all of the integrity of ecosystems, the fact is that the world, for human ends, has survived the decimation of the kakapo's numbers and the utter disappearance of numerous species. Coming to value such forms of life, then, is not really a second-way of seeing to our own interests. Instead, it represents for some a genuine extension of value or worth beyond the human-centred perspective we spontaneously endorse. Should it transpire, then, that our commitments under the Kyoto Protocol also enhance the well-being and continued security of an extended biosphere, then here we seem to generate a serious co-benefit or side-effect. For there is no assurance that otherwise such biodiversity would secure enough sponsorship as to ensure much more than sparsely tokenistic protection. (On the other hand, it may merely be fatuous to talk about biodiversity co-benefits in this context. Afforestation of radiata scarcely furthers indigenous biodiversity. Furthermore, anything which might so further indigenous biodiversity would equally - if not more than equally - benefit introduced species which threaten the natives. So, here, it seems 'co-benefit' might well be outflanked by 'mixed blessing'.)

When it comes to manifestly countable benefits, item (2) regarding afforestation credits wins the prize. A brief look at Figure 1 below provides the details at a glance.

Figure 1



(from MAF Presentation: Sustainable Land Management and Climate Change: Options for a Plan of Action)

The forest sinks account for the lion's share of anti-emissions, so to speak, and so serve to cancel at least that quantity of emissions which otherwise exceed 1990 limits. Taking 1990 emissions as optimally the maximum level allowable, the Kyoto Protocol rewards all post-1990 efforts at greenhouse gas 'storage' with carbon credits which can be used to offset post-1990 levels of greenhouse gas emissions. These credits may also be sold. Since forests are attributed with an 800 tonne/hectare CO<sub>2</sub> absorption capacity, new forest counts as just that sponge to soak up new CO<sub>2</sub> generated elsewhere. The existing Permanent Forest Sink Initiative (PFSI) creates new business in 'carbon farming' through the planting of new forest (or restoration of removed indigenous forest), the 'product' counted as that quantity of CO<sub>2</sub> stored in the new woodland. This becomes a salable credit which will be of value to others in business whose prospects demand their adding surplus to post-1990 CO<sub>2</sub> levels thereby creating costly punitive debits. As if this weren't benefit enough, the discussion document points out that, under the PFSI, such carbon credit value attaches to new woodland which itself need not be especially accessible or even valuable for lumber. "Because carbon farming does not necessarily require roads to be built or trees to be harvested, it is particularly well suited to isolated and highly erosion-prone land." (Ministry of Agriculture and Forestry 2006).

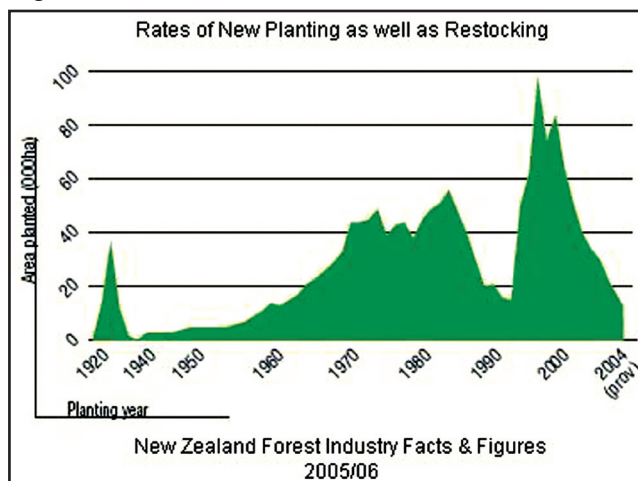
To complement the PFSI, two further afforestation schemes specially linked to Kyoto Protocol commitments are proposed; viz., the Afforestation Grant Scheme (AGS) which would pay grants to growers who plant new Kyoto-compliant post-2007 forests, any carbon credits and deforestation liabilities resting with the Crown, and another scheme which gives growers of Kyoto forests a choice between seeking a grant under terms of the AGS and opting for individual ownership of sink credits and responsibility for liabilities.

Unlike co-benefits (1) and (3), the presumption is, because the government has already committed itself to Kyoto Protocol emissions objectives, there are genuinely new benefits derived from post-2007 Kyoto-compliant afforestation options which would not likely have arisen without Kyoto. How is this so?

Figure 2 indicates that, fits and starts accepted, the planting of new forest has been a growing enterprise in New Zealand. This might suggest that, as with flood and erosion control projects, increased forestry can, given increasing markets, be reasonably expected, with or without carbon credits.

The economic value of such enterprise, however, lies principally in the harvested product, whether as felled timber ready for processing or as timber futures. Kyoto provides commercial grounds to plant new or restore old forests independently of their worth when harvested; indeed, whether they would be worth harvesting at all. With certain new forests, Kyoto creates de novo certain tradeable worth just because certain governments have assumed international commitments to reach certain emissions quotas. The 'real' worth, say, of any such post-2007 Kyoto-

Figure 2



compliant AGS forest is as a carbon credit source of value to the government by way of proof that it is satisfying its international emissions reduction commitment. Such proof presumably serves to prevent any foreign retribution imposed by way of censure or trade restrictions.

Note, if such carbon credits are, further, themselves deemed to be internationally-tradeable commodities, they clearly count as an entirely new export trade, making it worth New Zealand's while to profit from its environmental abstemiousness so long as other signatory nations remain hooked on emissions addictions. Paradoxically, if such credits could legitimately be sold by the abiding and bought by the miscreant, then presumably no censure would attach to any nation simply for failing to control their own emissions (however self-servingly) - so long as they were wealthy and willing enough to purchase a line of environmental credit made available to them by other nations which seemed to be setting a far nobler example!

This may expose a lingering abscess in the accountancy balanced-book approach to achieving and maintaining global environmental objectives. If all that counts collectively is the final entry on the roll; e.g., the world's total greenhouse gas emissions for a given Commitment Period, then, strictly, the relative difference of the individual contributions is of no matter. Strictly, it is within the overall allowance that any given carbon debit nation should not only purchase carbon credits from other nations; but, more blatantly, contract out the task of accumulating export carbon credits to others so as to continue openly in a course of wastefulness and destructiveness with impunity. (This is slightly reminiscent, though in reverse, of cases where certain nations may choose to protect their own native forests by purchasing their needed lumber from other nations who value their own native forests that much less.) How so? Because when the accounting is done, the world's Big Book balances, and, further, everyone's individual books balance so long as the only demand is that one's present debits are cancelled out by one's available credits wherever these come from. If, to control this exploitation of free trade, each nation's carbon credits

must be home-grown, then any international trade in such credits collapses; and with that would collapse any hoped-for benefits derivable from such trade.

I have no quick fix to this dilemma save to say that an overly-liquid conception of interchangeable commensurable carbon credits and debits is quite compatible with a world which, despite its maintenance overall of 1990 emissions levels, remains willfully and designedly the same old energy-toxic sewer in parts. Worse still, these very sewers for their very further liquid achievements in the form of magnificent GDPs remain the envy of many, and so leave ever-vulnerable any longer-term environmentally respectful global commitments which count, after all, upon a degree of impersonal maturity ever at the mercy of immediate self-gratification. Sadly, once one rejects the liquidity of carbon credit and debits, one inherits the analogue to a chaos of national currencies - where, in exchange, one's paper and coin is worth exactly no more and no less than what the daily currency market decides.

## The Brunt - Upon Whom it Falls

Regarding forests and their role in Kyoto considerations, the rewards and penalties are reasonably clear: while afforestation of post-1990 forest earns emission credits, and while the harvesting and replanting of pre-1990 forest creates no liabilities, deforestation or the changing of land use of pre-1990 forests creates emission liabilities.

To establish measurable liabilities, "deforestation of a hectare of mature radiata pine forest is expected to be recorded as an emission of around 800 tonnes of carbon dioxide in the national carbon account .. (which) is equivalent to an emissions cost of around \$13,000 for each hectare of land deforested (assuming \$15.92 per tonne of carbon dioxide)." (Ministry of Agriculture and Forestry 2006).

Since deforestation of pre-1990 forest will undoubtedly continue; e.g., for agricultural use or local council clearance, a Kyoto-grounded carbon debit will be created for the nation which will have somehow to be paid for. The discussion paper lists three categories of control to make up for the deficit; viz.,

1. Government pricing mechanisms involving a flat charge on land use change from forestry to another use; e.g., deforestation of non-Kyoto forests;
2. Market-based mechanisms using tradeable permits whereby the Government allocates tradeable deforestation permits making forest owners who deforest non-Kyoto forests liable for emissions above the level of permits they hold; and/or,
3. Regulation which could involve centrally determined deforestation levels creating a national deforestation limit or using the Resource Management Act to control deforestation.

The common denominator throughout, whatever option or cluster of options is adopted, is the special burden placed on those who care to remove forests which predate 1990, so-called 'non-Kyoto forest' where 'Kyoto forest' is

defined as "forest that has been established by direct human activity on land that was not forest land as at 31 December 1989." (Ministry of Agriculture and Forestry 2006).

A few issues arise here independently of misgivings arising from the seemingly arbitrary 1990 boundary. Using such time divides to create different legal entities out of what is otherwise a seamless continuum is common enough - though there may be some curiosity in imposing liability rather in the form of an anti-grandfather clause. Of greater concern are the forms of distribution of individual contributions to national ends, another installment in the saga of determining fairly the obligations of the citizen to the collective good.

We have here a circumstance where, as a consequence of having adopted an international commitment creating certain national responsibilities, a government creates quite new individual liabilities. The implications are clear: removing forest which has been in place before 1990 incurs a new carbon charge per hectare. This feature may further de-value the property making it more difficult for the owner to sell it or creating inflationary pressure on the price of forested land. Is this fair? By way of recognizing these implications, the discussion paper includes provisions for the Government's helping out with deforestation costs, though such suggested coverage is not full.

Supposing that the call to abide by Kyoto is in the national interest and that the brunt borne by certain forest owners is, as a consequence, special, how can we make room for it as a warranted form of national policy? In case the answer seems obvious, it is worth recalling that something's recognizably being in the national interest does not, of itself, warrant any special cost borne by some minority. Nor is it obvious that any such warrant can be determined entirely by the utilitarian accountancy approach. Such, of itself, runs into all the sentimental attachment we retain for such hold-overs as justice, fairness and individual rights. So, the old balancing-act tensions remain.

All I can propose here is to ask whether the kind of liability created for the owners of non-Kyoto forests is any different in kind from other forms of liability already accepted as justifiably imposed in the national interest. Note, this does not entail any approval of what has been accepted as the national interest. All I can do here is ask whether this new individual liability is consistent with ones taken in stride.

By way of ground clearing, it should be acknowledged that most citizens' individual private (and many commercial) practices are not hit especially hard by the national commitment to Kyoto. While we are regularly advised that response to climate change demands a personal commitment from each of us, there is no suggestion as yet that energy quotas are currently to attach to each us, nor that each of us, though our private practices, is to be labeled a measurably rewardable and punishable carbon credit-debit system - not yet, at least. There seems equally no strong-arm moves nationally afoot to, say, cap the engine size on personal vehicles or the wattage on personal lamp bulbs. No private party, indeed, seems, in that capacity,



to have had anything unavoidable imposed from without apart, perhaps, from anticipating certain entirely bearable extra tariffs on energy consumption like petrol use. It could well be that the industries upon which we rely as consumers will be both encouraged and forced, carrot-stick fashion, to reduce energy consumption and that their costs in so adapting will predictably be passed on. But such inflationary passage will be thought well enough moderated by central regulation and competition, so its severity is not likely to be great. So, it's not reasonable to argue: just as we all as private persons are expected to do our bit in complying nationally with Kyoto, so too must the owners of non-Kyoto forests shoulder their burden.

It might be argued that in imposing a carbon tax on deforestation of non-Kyoto forests, the owners are subject to quite the same post facto penalties imposed upon industries for the polluting remnants they have left. So, e.g., oil refineries and mines are now held accountable in some places for what are now regarded as pollutants they have left in the soil, and are made to clean up - often with some Government assistance but seldom with total coverage. Here, analogously, industries taken to be contributing to the national good are judged, after the fact, also to have contributed to national harm, and so are held thereby specially liable to compensate for or otherwise reverse it. We judge such newly identified responsibility fair. Is non-Kyoto deforestation like this? In some ways this analogy is attractive, but it fails in at least two ways. First, the industrial problems created belong in the past, and so the responsibility is purely retrospective. Owners of non-Kyoto forests face future penalties for as yet uncommitted violations. Secondly, current industry is now forbidden from continuing with past polluting practice. There is nothing analogous to a saved-up carbon credit to offset any future violation.

In brief, deforestation of non-Kyoto forest is not actually identified in the public document as a violation of any sort (public health, say, as in the case of soil polluters). Deforestation remains quite allowable, quite legal, even commendable given its local purpose - barring Government regulation which would simply ban it in certain areas. Rather, such deforestation is almost represented (simply) as one new cost of doing business which can simply be paid for.

Indeed, this very accommodation of continuing deforestation through the mechanism of tradeable carbon credits gives it a quality quite unlike that of other past practices which have faced special public penalty. It is not so much that such deforestation under Kyoto is a positively censured practice; rather, it becomes under Kyoto a profit-driven practice which, having subsequently been identified as the creator of a new national expense in the form of a carbon debit, must pay for itself without otherwise unjustifiably putting a burden on the public at large.

If only by way of a somewhat stretched comparison, consider the large internal tax placed by many nations on tobacco, one justification being that, since tobacco is a known (however tolerated) health hazard, its users had best

be made to bear a special responsibility in contributing to paying for their healthcare by paying a lot more for their smokes than they do for their carrots. Why, after all, should I, as a taxpayer, contribute to the complete healthcare of those who knowingly and avoidably stress the healthcare system. So similarly with those who knowingly and avoidably foul the atmosphere with more greenhouse gas than it need have, thereby stressing the climate system. Of course, a backup argument for such a tobacco tax is its serving both a punitive and thereby deterrent function. It's not clear that the extra carbon tax is intended in either way - though it's difficult to understand its proper underlying purpose without supposing that it must be designed at least to discourage such business as calls for deforestation. And if discouragement is the theme, can it be that the Kyoto commitment is quietly underwritten by a national will inexorably to run a practice down in principle to nothing - as one imposes sufficient constraints to get smokers to quit?

Contrast the refinery and mining case with once entirely acceptable legitimate businesses which have since, unlike oil refining and mining, been entirely closed down because what they were involved in is just no longer tolerated. So, e.g., at one stage, certain people made their lawful living in the slave trade as agents in the supply and sale of human beings. Others made a peaceable living importing, preparing and marketing leopard and panda skins - or whatever other now banned commodity may be imagined. Others earned their daily bread working in asbestos mines. The common factor in these cases involves once fully lawful trades which have, as trades, simply been eliminated in certain places. The reasons may vary, but the thoroughness of the removal remains. I'm not certain, in cases where whole trades have been made unallowable by national policy changes, to what extent the primary losers were given time to phase out and also subsidized to safer ground. It is certain, however, that the non-Kyoto forest deforester fails to rank along with the producer of panda rugs, and so bears a different sort of liability than that borne by someone who is now seen to engage in forbidden practice, the fruits of which may only be secured in some black market.

A last analogy would place the current owner of non-Kyoto forest in the same camp as anyone whose present occupation, while entirely allowed, has suffered newly imposed constraints which limit the freedom and profitability previously enjoyed - but not so severely as to render the pursuit financially impossible. Examples might include the imposition of new safety standards in manufacturing and construction or certain quotas and seasonal limits set on a fishery or certain reductions and replacements of certain ingredients in processed food - and so on. Other more temporally-restricted instances would include the removal of a specific product from the market (e.g., Thalidomide) or the forced recall of some dangerous product (e.g., the Ford Pinto). We have here the ongoing socially-willed process of regulating industry in the form of governmental standards purportedly designed to reflect

and express newly identified public values.

If anything, the government's endorsement of the Kyoto Commitment and the new restrictions and obligations it subsequently creates for a specific sector fall into just such a category. As such, not only is it nothing new regarding the discretion, indeed responsibility, given to government; it belongs intrinsically to the kind of public oversight we obviously endorse collectively. Where distinctive features emerge are in the kind of international call involved and, possibly, in the degree to which the government regards the holders of non-Kyoto forest entitled to a level of subsidy and compensation which might not be matched in other limits which have been imposed on other enterprises. Whether this reflects a special concern that future agricultural developments on non-Kyoto forest not be overly disadvantaged I cannot say.

## Summing Up

Given the enormous complexity and impending complications of climate change issues, the task of any conscientious and mindful government is not enviable. Not only are such governments opting, for many reasons, to place themselves increasingly under obligations owed to third-party international bodies; they are, on the way, having to foresee formerly unforeseeable highly disruptive implications for internal welfare. Window-dressing, of course, is ever the first temptation - at least by way of softening the blows. But once a nation earnestly buys into this new international currency of 'eco-dollars' minted as carbon credits and accepts new losses in the form of carbon debits, any such attempts at local protection from externally-set intrusion are sure to lose their effectiveness over time. The arithmetic, the very accountancy of national accountability changes - and all this for an entirely impersonal apolitical all-pervasive threat doled out by no less an unavoidable force as climate. While 'global' threats in the past, never quite global but always political or economic, allowed local solutions through the formation of special-interest 'blocs', alliances and affiliations, no closed-shop exclusive-membership Organization will shelter anyone from climatic change. Nor is this manageable by local policies such as can be enacted to prevent a nation's falling prey, say, to some epidemic disease sweeping through some other territory. There is nothing, that is, that New Zealand can do on its own to shelter it from what it is offering to address in the form of its highly local sustainable land management strategies. At best, we have here an intractable worry being responded to by a collectivity of nations who haven't even as yet managed to eradicate a number of entirely eradicable diseases for want of wanting properly to cooperate. More seriously, we have here an intractable worry the response to which seems stubbornly enmeshed in models pretending that what we must be about can be cleanly, however crudely, reduced to the language of buying and selling, trading and marketing, surplus and deficit. One asks: wasn't the very world created in the spirit of such lingo just the world which seems now, of its own, to be turning on the heat?

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