

To the Garnaut Review

I offer the following response to the Interim Report. It was written, in some innocence, before yesterday's discussion paper on Emission Trading Schemes but I will not get an opportunity soon to review. the discussion paper I am sending my response now on the understanding that submissions are due on 11 April.

Yours sincerely

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Terms of reference

The terms of reference for the Inquiry are very broad, which should get us a comprehensive Australian perspective on global climate change and how we might act both to help mitigation and by way of adaptation. This carries a risk, though, that the policy proposals in the Final Report could get lost in a mass of other details. I have in mind the fate of the Vernon Report in 1965, a comprehensive report on the Australian economy that was canned by the then Australian Government because its policy proposals did not stand out with sufficient clarity to win the support of either Government or people.

My concern that the policy proposals – including, one hopes, a brief for a greenhouse gas emissions trading-cum-taxation scheme – may not get due regard is magnified by the fact that the terms of reference talk only of 'medium to long term policy options' and as to actual dates talk only of 2050, which is comfortably beyond the political life of today's politicians. I note that the Interim Report does refer (p 40) to the need for interim targets for 2020 and I hope that the urgency of specific (and ambitious) medium term targets such as for 2020 will be amplified in the Final Report.

I am concerned also that the terms of reference appear to lock the Inquiry into a target of only 60% reduction of greenhouse gas emissions in Australia by 2050. While this is ALP policy – and it is disturbing to read that the Minister for Climate Change has declared that the ALP is unlikely to move beyond this – I hope that the Final Report might explore possibilities of more ambitious targets, *especially for Australia* (which is doing so much to promote climate change through its domestic emissions and even more through the emissions potential of its energy exports).

The climate science and the consequences of climate change

The Interim Report is commendable in accepting 'the majority opinion of the Australian and international scientific communities' on climate change while remaining open to the possibility that natural as well as anthropogenic causes

are at work. There's too much that we don't know and I look forward to the suggestions to be made in the Final report on 'expanding and strengthening the pluralist character of the Australian research efforts in climate change science' (p9). Better research, for instance into levels of emissions that might be 'sustainable', would better underpin the timing and quantum of emission caps.

I endorse the approach of the Interim Report that interprets the evidence on climate change in terms of a balance of probabilities rather than as a matter of belief. It seems to me that, in a situation where no-one can understand these things comprehensively, we would all help ourselves by trying similarly to form reliable overviews of climate science and the implications of climate change rather than picking on details that happen to support (or not) our views/hopes on what is happening. Although the report does not attempt 'to adjudicate on the relative merits of various expert scientific opinions' (p 8) it offers an overview that is eminently balanced..

Comparing the costs of climate change and mitigation

This section appears to be concerned to set the parameters against which costs will be weighed up in the Final Report. The Interim Report asserts that 'it is in Australia's interest to seek the strongest feasible global mitigation outcomes' and that 'it would be in Australia's interests to seek international agreement on the most ambitious feasible global mitigation target' (p25). These are reasonable aspirations but it would have been helpful if the section had elaborated on the methodologies to be employed for the analysis of likely costs respectively of climate change, of doing nothing, of mitigation and of adaptation.

To what extent will these costs impact on global and domestic economies? In particular, will they exacerbate or diminish the rising costs of oil, the lifeblood of modern economies, as supplies run out? Will the costs of addressing climate change and its implications add to what appear likely to be inflationary burdens for global economies in an unpredictable future? How will the costs work their way through the sectors and regions of our economy (I assume for this answer that the ABS has been asked to update its *Energy and Greenhouse Gas Emissions Accounts*, CAT 4604.0). One thing does seem certain in all of this: that we have little to lose in addressing climate change and its implications, and a lot to lose if our leaders lose their resolve to act, now.

For the purpose of comparing costs, the Interim Report adopts the view that the A1FI emissions scenario of the IPCC is a more likely scenario than the more moderate emissions scenarios preferred by the IPCC. Given current rates of both economic and emissions growth in parts of the world it may well be that even the A1FI scenario will turn out also to be conservative. For the purposes of the analysis, it seems reasonable to focus on a 450ppm of CO₂-e target and a 2° global warming prospect and to take a glimpse at the more scary prospects of 550 ppm and a 3° warming. Reluctantly, I agree that the

stabilisation target for greenhouse gases at 400ppm, as proposed by the Australian Conservation Foundation (p 25), is not realistic.

Mitigating climate change

The issue of pricing emissions-related externalities that we have not been paying for until now is absolutely central to the task of reducing emissions globally. Although, no doubt, submissions to the review from vested interests will put contrary views, as one of the consumers who account ultimately for nearly sixty per cent of Australia's domestic emissions (if the dated data in the ABS CAT 4604.0 is still relevant), I want to support the generality of the proposals in the Interim Report for an Emissions Trading Scheme(ETS) in the strongest possible terms, realising fully that an ETS will have short and medium term costs to me and to the Australian economy.

Before addressing some of the detail in the Interim report may I offer an important caution about emissions trading schemes (ETS) as well as about emissions taxing and emissions prices generally. In some quarters these are portrayed as, or believed to be, panaceas for all of the earth's environmental woes. Not so. Emissions pricing may well have secondary benefits for matters such as resources depletion, environmental degradation and waste disposal, but needs will remain for them to be addressed via economic instruments other than emissions pricing. Emissions pricing will primarily be a means of factoring emissions externalities into the costs of using particular natural resources – land and fossil fuels.

In considering emissions pricing the Interim Report focuses on two key issues: setting limits on annual global emissions (*setting a budget*) and allocating these to nations (*allocating the budget among countries*). The report rightly indicates that we do not yet have 'the science' to determine how much additional greenhouse gases the atmosphere can be asked to absorb, or at what level annual global emissions should be capped. It correctly indicates also that the *only* equitable way in which emissions can be allocated is on a *per caput* basis.

The report goes into considerable detail on matters that need to be negotiated in order to get international agreement on both of these issues. Some of these will be at least as difficult as winning international support was for the *Koto Protocol* and I find the political implications of this quite alarming. The difficulties allow so much latitude for vested interests to subvert the processes of implementing full pricing of emissions and for politicians who may use them to advance their own (including short-term national) interests by delaying action beyond the terms of their watches.

Quite simply, in my view, emissions pricing must be got into place, globally as soon as humanly possible, with as short a phase-in period as possible, and the pricing needs to be universal in its application (ie to regions and sectors), both while pricing is phased in and when full pricing is operative. If this means that a country such as Australia has to be amongst the leaders toward global pricing, by adopting its own domestically universal scheme sooner rather than

later, so be it. It is not as though we cannot afford to be leaders in this matter. Nevertheless, I acknowledge the difficulties.

In arguing for a *per caput* basis for allocating whatever emissions may be approved by Science, the report considers only the matter of allocations to countries. With national governments in countries such as the United Kingdom considering ways of introducing personal emissions allowances I wonder whether this is a matter for discussion in the Final report. My own view is that, while personal emissions allowances might help drive home the fact that emissions reduction is ultimately something for each of us, the calculation of such allowance could not be other than arbitrary, monitoring them would be expensive and such schemes would distract from real emissions pricing.

The report considers the interesting problems to do with simultaneously contracting global emissions and getting convergence in *per caput* emissions between rich and poor (pp 26 *et seq*). Without wishing to sound negative, I think the report understates the enormity of the task of levelling out *per caput* emissions, let alone reducing them globally. Data from the World Resource Institute (cited on p 40 of the Interim Report) and *Wikipedia*, both drawing on reputable sources, indicate that where Australia emitted more than five times the global *per caput* average of CO₂ in 2000/2, China emitted about 0.8 per cent and India about 0.3 per cent of that global average.

On this basis, Australia would need to cut its *per caput* emissions by more than eighty per cent to get to a global average which is acknowledged to be too high anyway.

That is a big political ask, almost as big as asking China and India to limit *per caput* emissions to less than the global average!. In this regard I should acknowledge that the data I have cited refers only to CO₂ emissions. I recognise that climate science isn't concerned with just CO₂, or just carbon; it is concerned with *all* greenhouse gases reduced to CO₂-e or carbon dioxide equivalents. Unfortunately, I have yet to find international data that covers all greenhouse gas emissions

However, the proposal for *per caput* emissions targets embodies a very attractive bonus in that it could lead to substantial transfers of capital and technology from the developed (high emissions) countries to the less developed. One thing that stands out very clearly in the debate about energy use and emission internationally is how unequally these things are distributed between rich countries and poor. If emissions pricing can be achieved rigorously and emissions quotas can become tradeable between countries then the world might achieve a levelling out of the appalling inequalities in economic development.

At this point, having referred to my problem in finding emissions data for international comparisons, I am going to digress and ride a hobby horse. Many of the sources I have viewed talk of greenhouse gases, CO₂, and 'carbon' as though they are the same thing. In the same vein even quite

reputable green and brown 'authorities' often cite numbers without dates and give references without citing primary sources (which leads to propagation of false facts via the Internet). There's rather too much of 'my number is better than yours' in public discussion of climate change and, so, I applaud the Interim Report on the way in which it uses terminology accurately, attaches dates to numbers cited and is clear about the sources it has drawn on.

On the matter of interim targets (pp 40 *et seq*), it seems to me that basing national targets on 1990 emissions would be unwise. Not only is 1990 a long time in the past, since when emissions have changed (dramatically in some countries) but also I suspect that much of the international data for total emissions in 1990, especially for poor countries, has to be regarded with suspicion.. Perhaps we should adopt the European approach proposed in Bali of setting interim targets based on 2000 emissions (and for Australia as a high emitter, we should accept a 40 per cent reduction, not a 25 per cent one, in emissions by 2020, a reasonable target if we look back across our emissions in the 1960s and 1970s).

Living within Australia's emissions targets

The Interim Report argues that Australia should take a role of leadership in setting interim emissions targets, either unilaterally or in concert with its regional neighbours, Regional agreements on targets such as discussed in various places after p32 might be something to work towards, though not if Australia sees these as ways of balancing out its high emissions with the low emissions of some of island neighbours. However, 'unilateral action [by individual countries] can accelerate progress' towards global emissions reductions (pp38) and Australia has something of a moral and economic responsibility in this regard.

As the Interim report recognises, Australia's domestic emissions are very high, on a *per caput* basis. Moreover, if the emissions potential of our energy exports is added to our actual domestic emissions, then it appears from ABARE data (*Energy in Australia, 2004*) and the data used in *Wikipedia* that we are implicated in annual emissions as large as those of Germany (about 3.4 per cent of world total), My point is that we have a moral obligation to lead on emissions control, not to mention that we also have the economic strength and energy resources that can enable us to lead. If this means that we have to adopt interim emissions targets unilaterally or in tandem with European countries, so be it.

In discussing the design of an efficient emissions trading scheme (p41) the Interim report would rely heavily on market forces, rather than regulation or taxation, to set emissions prices. It is hard to deny the force of this argument. Market forces can operate internationally, they can adjust rapidly to circumstances (such as changing economies and changing emissions caps) and they can quickly influence consumer behaviour. Taxes and regulation on the other hand change slowly and cannot be other than arbitrary. However, market forces can only operate effectively if governments set and adhere to

clear emissions targets. In particular, there must be no concessions, such as to electricity generators.

However, in my innocence on such things, I do find it hard to see how an ETS can work within Australia without a parallel taxation or levy scheme. A difficulty for an ETS is to ensure that it is universal. *Prima facie*, it shouldn't be too hard to design an ETS that could cover most – but not all – of the emissions at source (including fugitive emissions) from the relatively small number of Australian miners and importers of fossil fuels (and this could ensure that exported energy would be sold carrying an emissions credit). It would be harder to design a trading scheme to embrace all users who burn fossil fuels (not so much electricity generators as millions of households and transport vehicles).

The real problem for an ETS would be to capture non-fossil fuel anthropogenic emissions, notably the methane generated by livestock and waste dumps and the various greenhouse gas emissions generated in the processes of land clearing (including forestry) and agriculture. I have no idea how these, including emissions attributable to hobby farmers, large gardeners and other large landholders who the ABS does not capture in its agricultural censuses might be embraced in a trading scheme. It seems that they will need to be taxed or levied – based on the market price of emissions from time to time – which should ensure government funds to cover regulation and monitoring of emissions and pricing, as well as to address the market failures referred to on p 42.

The faster and more fully emissions pricing is adopted in Australia, the more radical will be the effects on intermediate and final consumption and prices. My reading of input-output data from the ABS suggests that energy costs embodied at various stages of intermediate and final consumption account for about ten per cent of GDP. It would not be difficult for our economy to absorb a real increase of say 25 per cent in this (roughly what might be anticipated for retail electricity prices in NSW with emissions trading at \$65/tonne of CO₂-e) but the economy will need to adjust also to rises in energy prices generally that must flow from the unpredictable but inevitable rise in the price of oil.. This could have significant implications for certain sectors of the economy, and hence for the regions and people in them who depend on particular industries.

Given the way in which the manufacturing sector in Australia has adjusted to changing circumstance over the last thirty years – and the agricultural sector over a rather longer period – I wouldn't be too worried about the capacity of the Australian economy to achieve structural adjustment without requiring substantial handouts and/or tax reductions, though Australians have come to expect that governments will insulate them from risk and change, leading to very large transfer payments within our economy (such as diesel fuel rebates and ten billion dollar Murray Darling plan). The existing raft of subsidies and other reallocations of resources needs to be tidied to enable emissions pricing to work transparently and effectively.

There will be heavy pressure brought to bear for instance from electricity generators and primary processors to be exempted from emissions pricing. Any such exemptions that prolong the use of existing emissions-generating technologies (as distinct from cleaner, preferably renewable energy technologies) would simply protect these emitters from paying for the very substantial harm that they are doing to our atmosphere. Not only would this perpetuate the very externalities that emissions pricing is proposed to stop, but also it would amount to a major distortion of resource allocation in our economy which we simply cannot afford.

As emissions pricing, whether by ETS or taxation, will accrue substantial additional revenues, governments will need to be disciplined in how they spend these revenues. Emissions pricing will put a price on particular externalities and will be a challenge for governments to ensure that this revenue is spent on rectifying the causes and consequences of present market failure and ensuring that these don't happen again. It will be easy enough to spend revenue on new or replacement infrastructure for capturing, storing and distributing proven renewable energies on houses and in grids. It will be easy to spend it on exploring and developing new technologies though many may see the results as capital handouts (subsidies) to the private sector. It should be easy to spend on rural, urban and interurban public transport.

However, it will not be easy for governments to use emissions income to offset individual (and perhaps corporate) hardships because Australia's current systems of personal and corporate taxation on the one hand and of superannuation and income support on the other have become so complex as layers have been added to layers of benefits and exceptions – often with unexpected consequences (such as the high effective rates of tax resulting from benefit withdrawal). Perhaps Australia needs an integrated system of taxation and income support – including, I suggest negative taxation instead of low tax free thresholds – if offsets for hardships with emissions pricing are to be able to work.

In the present time of economic insecurity, it will require politicians with integrity and fortitude to implement an effective ETS supported by whatever regulation and taxation is needed. Only can only hope that Governments and Oppositions will avoid temptation to use emissions spending for political advantage.

Implications of addressing climate change for Australia

The Interim report suggests that 'Australia would suffer exceptionally from unmitigated climate change' (p56). I suggest that, in fact, Australia *will* suffer from climate change – a climate change that we have contributed to and are contributing towards – regardless of what mitigation might take place.

I suggest therefore that we would be foolish to look only to mitigation. The consensus view of agencies such as both the IPCC is that Australia will experience a warming of around 1° by 2030, more-or-less regardless of whether we curb global emissions. That is a sufficient change to warrant a

great deal of adjustment to our own behaviour. Obviously, we must do whatever we can, on our own if need be, to avoid the more radical changes that might come with if greenhouse gas concentrations of 450 or 550 ppm eventuate. Fortunately, much of adaptation and much of mitigation involve pretty much the same changes to our behaviour – especially our consumption behaviour.

In today's world many of us – including politicians – may expect to live long enough to regret the consequences of what we may do or neglect to do. With climate change, the future is very much 'just around the corner'. I look forward to the Final Report and commitments from governments to its implementation.