

2 January 2008

Submission from the Lavoisier Group to the Garnaut Climate Change Review

Issues Paper 1

Climate Change: Land use – Agriculture and Forestry

Abstract

The economic history of Australia since 1788 has been characterised by some crucial turning points. John McArthur's success in establishing the wool industry here in the early days of settlement was perhaps the most important. The discovery of gold in the 1850s was another. The establishment by Alfred Deakin, in the early years of federation, of a semi-closed economy was a tragic turning point. Contrariwise, the failure by Ben Chifley in 1946 to nationalise the banks was a very fortunate event, and the overturning by the Hawke Government of eighty years of protectionism has led to twenty years of continuing economic success.

The threat of decarbonisation now hangs over Australia. If it is successfully imposed then the economic consequences will be similar to that which Chifley's bank nationalisation ambitions would have had if they had been realised. In particular, if a cap and trade regime is imposed then, inexorably, governments will intrude more and more into economic decision making at the micro-level. The current trials of the German auto-manufacturers, as they battle the dictates of the bureaucrats in Brussels, provide a foretaste of the future under a cap-and-trade regime.

There is no scientific consensus on the causal connection between anthropogenic carbon dioxide and global climate control. The weight of genuinely reputable scientific opinion is now firmly against any such connection.

The best advice which the Garnaut Inquiry could offer the Rudd Government and the Australian people is that attributed to Bismarck - 'Wait and See'. We do not know what the climatic future is, and our best policy is to make best use of our resources, today, in order to provide the economic means of adaptation to future unknown developments.

**Submission from the Lavoisier Group to the
Garnaut Climate Change Review**

Issues Paper 1

Climate Change: Land use – Agriculture and Forestry

1. Introduction

This submission is a response to the Issues Paper 1 on the impact of ‘climate change’ on Australia’s agricultural, pastoral and forestry industries. It is impossible to comment sensibly on the impact of decarbonisation policies on those particular industries without discussing the scientific rationale for such policies, and the economic impact which decarbonisation will have on the Australian economy generally.

The position implicitly adopted in this Issues Paper and endorsed by Professor Garnaut in his S. T. Lee Lecture of 29 November 2007, is that anthropogenically caused global warming has taken place, is taking place, and will accelerate, and that unless anthropogenic emissions of carbon dioxide and other greenhouse gases such as methane and nitrous oxide are reduced to levels such as 40 per cent of current emissions, or even less, then the consequences will be catastrophic. This is the language used by Sir David King, Lord May and local representatives for climate catastrophe from the CSIRO, and endorsed by Sir Nicholas Stern in his report.

Our civilisation is based on the use of cheap energy (mostly in the form of gas and electricity) and cheap liquid fuels for transport, (mostly petrol and distillate). Our economy is thus carbon-based and any serious attempt at decarbonisation will cause economic upheaval rivalled only by the exigencies of war. Australia is more carbon intensive than most industrialised countries because our low-cost coal resources and abundant supplies of natural gas provide the foundation for energy-intensive export industries such as aluminium smelting and alumina production, steel production, auto-manufacturing, fertiliser production, and minerals processing.

Aaron Wildavsky,¹ in 1992, noted the implications of serious decarbonisation:

Global warming is the mother of environmental scares. In the scope of its consequences for life on planet Earth and the immense size of its remedies, global warming dwarfs all the environmental and safety scares of our time put together. Warming (and warming alone), through its primary antidote of withdrawing carbon from production and consumption, is capable of realizing the environmentalist's dream of an egalitarian society based on rejection of economic growth in favour of a smaller population's eating lower on the food chain, consuming a lot less, and sharing a much lower level of resources much more equally.²

It is difficult to believe that the Australian people will accept the economic costs of non-trivial decarbonisation, even if they are disguised to some degree, and even if they take time to become manifest through rising prices, rising interest rates and increasing unemployment. To sustain a policy which imposed a marked reduction in living standards on most citizens

would require complete unanimity throughout the business elites of the nation and across the entire political spectrum. In a democracy such as ours, in the absence of a real and immediate crisis, it is difficult to imagine how such unanimity could occur. This is particularly true when the scientific arguments behind theories of anthropogenic carbon dioxide as a means of climate control are hotly contested by a large and eminent group of scientists from around the world. On December 20 last, US Senator James Inhofe, ranking member of the Senate Environment and Public Works Committee, released a report listing over 400 scientists and other qualified commentators who are either sceptics or denialists, together with a compilation of their comments. These comments, despite the divergent political backgrounds and positions of the authors, and the mistakes evident in some of the translations from other languages, constitute a compelling indictment of the IPCC and those scientists who have been living off the gravy train created by global warming hysteria. The Inhofe Report is attached as [Appendix A](#).

A smaller list, which includes scientists and others now dead, is attached as [Appendix B](#). This list includes some of the most famous names in post-war science.

The argument that there is an overwhelming consensus amongst the global scientific community which accepts that there is a causal relationship between anthropogenic emissions of carbon dioxide and global temperatures can no longer be sustained.

One aspect of the science debate which has been neglected is the concealment of basic data and the lack of transparency concerning the climate simulation models which have been at the heart of the campaign to establish a global regime of decarbonisation. The strenuous efforts which had to be made to show that Mann's hockey stick, the time-temperature graph used by the IPCC as a quasi-corporate logo from 2001 onwards, was actually fraudulent, is a good example.³ The recent silent acknowledgment that NASA statistics concerning the temperature record of the US were wrong in crucial details concerning temperature maxima, is another. The attempt by the Hadley Centre to keep its temperature data base confidential is another. There are other examples of a 'closed shop' mentality which, taken all together, suggest that claims from the IPCC concerning temperature records, or predictions, or 'scenarios', should be subject to a great deal of checking before any credence can be placed in them.

There are many statements from eminent people involved in this debate that decarbonisation is not so much a remedy for rising global temperatures as a method of transforming society.⁴ As part of the political struggle now going on between the Decarbonisers and those who oppose them, the Decarbonisers are now telling us that the impact of decarbonisation policies on our economic well-being will be scarcely noticeable. The self-styled Climate Institute (which should be more accurately titled The Decarbonising Institute), for example, recently produced a report (3 December 2007) stating *inter alia*:

The report shows that if Australia reversed its rising pollution by 2012, reduced emissions by 20% by 2020 and became carbon neutral by 2050 that:

Australian economic activity is projected to increase from less than \$1 trillion now to around \$3 trillion by 2050. To 2050, the economy grows at 2.8% annually versus 2.9% annually with no action on climate change (i.e a 0.1% annual reduction in GDP growth). Employment increases from 9.7 to 16.7 million jobs by 2050.

Long term impacts on energy prices and affordability are manageable with average energy consumer bundle (electricity, petrol and gas) falling from 6% of average income today to 4% by 2050. (While electricity, petrol and gas prices increase this is more than offset by increases in real income.)

The Climate Institute footnoted its report with this comment:

The report assumes that global action on climate change will continue to allow countries to use international emissions trading to meet domestic emission obligations. This allows Australia to become carbon neutral by undertaking emission reductions in Australia and investing in emission reductions in other countries to offset emissions such as those from our power stations and industries.

Econometric modelling which produces results of this kind cannot be taken seriously. Just as the economic growth scenarios fed into the IPCC's climate models were shown by Ian Castles and David Henderson⁵ to be literally incredible, the belief that we can predict what sort of economy our descendants will have in 2050, let alone in 2100, has no basis in recent economic history. The stationary economies which provided the background for Thomas Malthus' famous pessimism⁶ are found in fewer and fewer parts of the globe. Econometric modelling has its uses when estimates of the impacts small changes in relative prices in a well-functioning market economy are required. But to predict what will happen when a market economy is superseded by a command-and-control economy of the kind which must develop under a cap-and-trade regime, is beyond the reach of econometrics.

A recent example of the failure of econometrics to predict the consequences of major policy changes occurred during the debate over protectionism. As part of the campaign to convince political elites of the desirability of ending 80 years of protection, econometric simulations were undertaken with the hope that they would reveal very substantial benefits accruing from phasing out tariffs. The results were extremely disappointing from the point of view of those who commissioned the studies. Although the simulations did predict increases in GDP, they were much smaller than had been hoped for, and accordingly these results were rarely used.

As we now know, winding up protectionism has changed Australian economic life. What was a rent-seeking society has been transformed into one in which exports are seen as a natural progression from domestic success. Indeed some manufacturing concerns are based wholly on export markets. The long period of economic growth dating from the early 1990s is, in very large measure, attributable to Australia entering into the global economy. None of this was captured, nor could it have been captured, by the econometric models in which so much hope was invested.

The historic change which has transformed the life of peoples in the developed world since WWII, has been the mass production and use of automobiles, and the ever growing use of electricity as a source of power for home, office and factory. In Australia 90 per cent of total trips, and 80 per cent of work trips, are now by automobile.

In early 2001, the Howard Government found itself on the back foot. The blue-ribbon seat of Ryan was lost in a bye-election, and the Court Government was defeated in WA. The Government consistently lagged in opinion polls. Petrol excise had recently increased as an

automatic response to price changes; this increase was deeply resented by consumers, and the price of petrol had become a major political issue. After these reverses, automatic indexation of petrol excise, despite the protests of Treasury, was quickly abandoned, and the Howard Government began recover in the polls and went on to win the election of November 2001. This history makes the point. Unless people change their jobs, downsize their cars, or relocate their homes, expenditure on petrol (or distillate) is mostly non-discretionary. The efficient working of the labour market is critically dependent on people's ability to change jobs without having to relocate, and the US experience demonstrates that cities with efficient freeway or toll-road systems grow faster and are more prosperous than cities characterised by severe traffic congestion. Cheap petrol (or gas to use the American term) is a vital component of US labour market efficiency. The fate of President Clinton's BTU tax of 1993 gives an insight into American political and economic life which is relevant to Australia.

However, we are now faced with the very real prospect of the establishment, by statute, of institutions of decarbonisation such as carbon emissions trading markets. Such institutions will cause serious long term economic damage to the fabric of Australian society. Even if the initial price of carbon emissions is low, once these institutions are established it will be difficult to abolish them, particularly if governments create property rights in carbon emissions, and establish a market in which they can be bought and sold. Such action will generate serious distortions in our capital markets; create a wealthy and influential rent-seeking class; encourage corruption on an unprecedented scale; and effectively stop further development of our massive, and internationally competitive, brown and black coal resources. A major source of international comparative advantage will be turned into disadvantage. The effect would be similar to the imposition, after WWII, of a non-trivial poll tax on every sheep in Australia. The impact of the CAP on the European economy is relevant in this context. Because of the CAP, rural land values are many times what they would be in its absence; one estimate is ten times. This situation causes huge distortions in the European economy, and makes it very difficult for the CAP to be wound back.

Although the aluminium smelting industry is not regarded as a rural industry, it provides employment opportunities for many people in regional Australia - Gladstone and Portland are obvious examples. Its current predicament is relevant to this Issues Paper because the Garnaut Inquiry is providing the stage for the debate on carbon taxes which will influence critical investment decisions in the immediate future, and the Garnaut Report will be analysed in great detail in every energy-intensive industry.

In 2006 Australian alumina production was 18.4 Mtonnes and aluminium production 1.93 Mtonnes, with export revenues totalling A\$11.4 billion. Alumina production could reach 30 Mtonnes within a few years if current plans to increase capacity are not jettisoned.

However, the aluminium smelting industry in Australia is now facing the prospect of having to shut down and relocate. The Alcoa contract with the Victorian Government expires in 2014, but decisions to relocate will have to be made within the next two years. In the current political climate, manifested in the language of this Issues Paper, it would be extremely difficult for Alcoa to justify seeking a renewal of the contract. Company boards are immediately affected by commentary such as Professor Garnaut's S.T.Lee Lecture, and it would now require very solid commitments from both the Victorian and Commonwealth Governments for Alcoa to regard remaining in Australia, as an aluminium producer, as a viable option.

In recent years, the major aluminium producers have decided to accept the political risk of establishing new smelters in the Persian Gulf, where energy prices are extremely low. For Australia the decision is whether we push these industries out by increasing their electricity costs through carbon taxes and imposing penalties on their carbon dioxide exhausts, or whether we strive to hold onto what we have by minimizing any extra burdens on the power generators in the black and brown coal fields. The proposal that export industries such as aluminium smelting and wheat growing, or import competing industries such as auto-manufacturing, should be exempted from carbon taxes would not be one that would find ready acceptance within the community at large. It is also doubtful that it would be acceptable under WTO rules. As contemporary European experience shows, as soon as serious carbon withdrawal policies impact on energy intensive industries (or on industries whose products are energy intensive), whether through taxes or ETS arrangements, the political pain becomes too great to bear. The battle now going on between the EU Commission in Brussels, and the German auto-manufacturing industry, provides a foretaste of what cap-and-trade really means. The German auto-manufacturing industry is the most important German export industry. Mercedes Benz and BMW have been designing and making cars which are sought after all over the world. Their success is based on close attention to what customers want and what they can pay for. However, the authorities in Brussels now insist on prescribing, in great detail, what sort of automobiles people should have, and are thus usurping the crucial role of product design and specification which has been the foundation of German success in this industry. This, of course, is socialism under another guise, and it is a manifestation of the on-going attraction of *dirigism* which persists in Europe but particularly in France and Germany.

In his magisterial book *An Economic History of Australia*,⁷ written just before the onset of the Great Depression, Edward Shann describes some of the crucial struggles which laid the foundations for the development of Australia from a convict settlement dependent on food imports from England to a self-governing and independent nation with a high standard of living. Three reference points are relevant in this paper. The first was John McArthur's endeavours to establish a wool growing industry here; a struggle ultimately crowned with success despite the hostility of the authorities at Sydney and of influential men such as Joseph Banks in England. If McArthur's opponents had prevailed it is unlikely that the infant colony would have survived, dependent as it was on ever-increasing subventions from London.

The second was the establishment by Alfred Deakin, in the early years of federation, of a semi-closed economy characterised by tariff protection and detailed wage regulation. The sad story of Deakin's success is now well understood by most students of economic history. When protection was introduced with the early Tariff Acts of the first and second Commonwealth parliaments, (along with the C&A Act of 1904), Australia, although recovering from the depression of the 1890s was still, in relative terms, either the richest or the second richest country (in per capita terms) in the world. It took eighty years for the economic damage which inevitably followed from this disastrous policy to become sufficiently manifest for the political elites of both sides of politics to agree that protectionism had to be wound back. It was the greatest achievement of the Hawke Government that it successfully carried out this historic policy shift, and John Howard's role in helping to maintain Coalition support for the change was of crucial importance.

Shann wrote 16 years before Chifley sought to nationalise the banks, but that episode, too, was a turning point in Australia's history. If Chifley had succeeded in his ambition to nationalise

the banks all economic activity in Australia would have been subject to the whims of a monopoly bank, owned by the Government, with consequences which quickly became manifest in Eastern Europe once it had been absorbed into the Soviet Empire after WWII.

Chifley's ambitions had been fuelled by the experience of the Great Depression, an event which no political leader could explain, and which was not understood by the economics profession⁸ until Milton Friedman and his collaborators painstakingly documented the folly which the Federal Reserve had unleashed upon the world. The world-wide economic consequences of Smoot-Hawley were, likewise, simply not understood.

Chifley's failure to nationalise the banks was thus a turning point. In 1949 Australia declined to go down the socialist road, then the preferred path for the intellectual classes in the UK and Australia, and instead opted for a continuance, under Menzies, of the Deakinite settlement of 1901-1907.

If Australia decides to embark on decarbonisation that too will be a turning point similar in its consequences to Deakin's establishment of protection and its associated wage regulation.

There are real differences however between the Great Depression and the current obsession about anthropogenic carbon dioxide and climate control. The Great Depression was a mysterious tragedy at the time, but we have known for many decades that the influence of carbon dioxide on the Earth's radiation balance declines logarithmically once concentrations exceed 100 ppmv. The current obsession concerning anthropogenic emissions of carbon dioxide, can be dated back to the very warm American summer of 1988 when James Hansen appeared before a US Senate committee hearing on climate change (chaired by then Senator Al Gore) claiming that the world was then warmer than at any time since instruments were recording temperatures and that some part of the warming was due to the build up of greenhouse gases.

It was then well known that increasing concentrations of carbon dioxide and other greenhouse gases, such as methane and nitrous oxide, had a logarithmically diminishing impact on the radiation balance at the upper troposphere. Sir Fred Hoyle,⁹ writing some years previously had described this effect in his book *Ice*, published in 1981.¹⁰

Since 1998, despite increasing atmospheric concentrations of carbon dioxide, the lower troposphere has refused to increase in temperature. Further the failure of the tropical troposphere to warm, as required by the climate models which provide the foundation for all the warming predictions, rubs salt into the wounds of those scientists who continue to tell us that the earth is getting warmer and the seas are rising, despite all evidence to the contrary.

Currently it is the accepted political wisdom on both sides of politics that a majority of Australians (particularly those under 25) are concerned about so-called 'climate change' (a phrase used to replace 'global warming' which was deemed to be too specific) but will not accept the prescriptions which the Australian Greens, or Sir Nicholas Stern, for example, have proposed as essential for the salvation of the planet.

The Howard Government contributed to this state of public opinion by insisting that Australia would meet its Kyoto target of 108 percent of 1990 emissions whilst at the same time refusing to ratify the Kyoto Protocol on the grounds of national interest. The Howard Government also

financed the Australian Greenhouse Office, since its establishment in 1998, to the tune of more than a billion dollars, and this money, in large part, was used to promote public fears about global warming, and to award grants and contracts to universities and economic consultants so that opinion-forming institutions would be locked into the global warming camp.

By establishing the MRETS scheme in 1998, the Howard Government created a rent-seeking industry, particularly in the wind generator sector, which is now receiving large rents (\$800 millions pa) and hopes to receive much more. As the theory and history of rent-seeking shows, these companies will spend large sums in the hope of reaping future rents. The Parer Report (2002) recommended the abolition of this scheme.

Another fine example of pure rent-seeking is seen in [Appendix C](#), an advertisement which appeared in the Australian Financial Review on 2 May 2007. Although there is a disclaimer which states that the signatories are speaking for themselves alone, the fact that they cite their position and their organisation indicates that they acted with the full knowledge of their companies. The timing of this advertisement was such as to seek to influence the Shergold Report, which duly came out in support of a Carbon Emissions Trading Scheme (CETS) on 1 June 2007. Prime Minister Howard followed on July 17 with statements announcing the establishment of such a scheme within a three year framework. In the meantime Dr Shergold commented on proposals to offset, with subsidies, the increased costs of power and petrol to low-income people with the following remarks:¹¹

Australia's emissions were "bugger all" globally and any system designed to limit greenhouse gas emissions was carefully constructed to ensure "least cost" to the economy, he said.

That principle would also apply for any compensation, he said.

"This is the one thing on which I think we are pretty clear: that we are not necessarily sure on what the government should do, but we are bloody certain what the government shouldn't do," Dr Shergold said.

"And what the government shouldn't do is simply use the revenue to subsidise the power bills of individual households.

"In case that sounds a bit mean, think about what we are trying to do here. We are trying to change the behaviour of industry and households."

The Shergold Report ignored the most fundamental question which should have been addressed; which is what benefits, if any, would accrue to Australia as a consequence of decarbonisation policies of any magnitude. Even Shergold admitted that some decarbonisation will impose costs. The only justification which he or Prime Minister Howard offered for imposing these costs was in terms of an insurance premium against future harm. But no explanation of the nature and extent of any such harm was offered. Nor were any arguments put forward to justify the costs imposed by decarbonisation as opposed to other investments that could be made in anticipation of the impacts of climate change (whether warming or cooling).

When it is pointed out that any measure of decarbonisation by Australia will have an immeasurably small impact on atmospheric concentrations of carbon dioxide, it is argued that we have to set an example to the rest of the world. The statements and demeanour of the Chinese representatives at Bali (where the Chinese delegation reduced Executive Secretary of the UNFCCC, Yvo de Boer to tears) have made it clear that China will not curtail its

programme of coal-fired power station construction (one new power station every week) and will not accept any attempt by the Western powers to force China to abandon its ambitions to become a modern, prosperous nation, enjoying the same standards of living which we take for granted. The Indian Government is, like China, firm and forthright in articulating the same ambitions.¹²

The position of the Chinese and Indian governments make it absolutely clear that there is not the slightest prospect of a global trading regime in carbon emissions being accepted. The European experience also demonstrates that within a self-contained jurisdiction the problems of certification, verification, and auditing of such a scheme are insuperable. Bryan Leyland¹³ summarizes the potential dangers of carbon trading in these words:

So, to my knowledge, carbon trading is the only commodity trading where it is impossible to establish with reasonable accuracy how much is being bought and sold, where the commodity that is traded is invisible and can perform no useful purpose for the purchaser, and where both parties benefit if the quantities traded have been exaggerated.

It is, therefore, an open invitation to fraud, and that is exactly what is happening all over the world.

Robert Shapiro, influential US economist and former Under Secretary of Commerce for Economic Affairs, 1997-2001, recently commented on this issue:¹⁴

There's enormous potential for cheating, and in particular by corrupt autocratic governments. The notion that, look, it's hard enough in a democratic and transparent system to not have permits be distributed or taxes imposed without special preferences for powerful industries. In Germany, for example, recently the German government exempted coal production from the European trading system. Well, that's a rather large greenhouse gas producer that they...well, it was political pressure. Imagine what Vladimir Putin would do with this. Imagine what the Chinese government would do with this. Imagine what Sudan and Iran would do with this.

If a developing country was able to overstate its initial emissions and consequently show great progress, they could then have permits to sell to everyone else, and it becomes a source of hard currency. Under Kyoto, if everyone had participated in Kyoto as written, because of the 1990 base year that created a windfall for Russia, Russia could have been expected to earn \$40 billion a year in hard currency selling excess permits. I really don't think that the home owners and the drivers in Australia and the US should be helping to finance the despotic regime of Vladimir Putin.

Despite the complete scepticism of very many authoritative scientists concerning the belief that reducing anthropogenic carbon dioxide will result in global cooling, most Western political leaders have decided to embrace decarbonisation policies, at least rhetorically. If such policies were in fact carried out, economic life in the developed world would be utterly transformed, and the developing countries, particularly China and India, which are experiencing historically unprecedented economic growth, would have to abandon coal and oil based technology for their energy and transport needs. It would require that electricity everywhere in the world could only be generated by nuclear and hydro power stations.

If Australia decided (in order, perhaps, to show an example to the rest of the world) to replace its coal fired power stations with nuclear stations, the following arithmetic would apply. Current electrical generating capacity in Australia is 45 GW of which over 90 percent is coal based. To replace coal with nuclear would cost \$90-120 billion at current prices (\$US 1,500-2000 per kW), and this does not take into account compensation to the owners of the existing coal fired stations, arguably another \$60 billion or so). Nor does it take into account increases in electricity consumption because of population growth or increases in electrical intensity of the economy. Even if the money were available for such a huge investment, it is extremely doubtful that the supply of skills and materials needed for such a programme were available anywhere in the world. The price of electricity to the domestic consumer would increase by a factor of at least 50 percent, perhaps more.

It should be noted in passing that the Green mantra of “wind and solar” is economic nonsense, and that the current output of wind turbines is heavily subsidised at substantial cost to the consumer. The basic costs of electricity production are never mentioned by the Decarbonisers, but it is worthwhile repeating them here. Electricity from the brown coal stations of the Latrobe Valley costs about \$25-\$30 per MWhr. From the black coal stations of NSW and Queensland, about \$30 -\$40 per Mwhr. Dr Switkowski claimed that nuclear power in Australia would cost 20 to 50 percent more than coal based power, but his estimates have been contested, and most analysts argue that nuclear power would cost between \$70 and \$80 per MWhr. There is a big difference, of course, between power costs at the power station switching yard and power costs to the domestic consumer, and a 100 per cent differential at the power station could translate to a 50 percent increase to the domestic consumer. To make nuclear power competitive with brown coal-based electricity would require a carbon tax of between \$40 and \$50 per tonne of carbon, and for black coal between \$30 and \$40 per tonne.

Wind turbines produce electricity for more than \$80 per Mwhr, but the product is essentially worthless since it cannot be relied upon when required. Solar power has long been the dream of the Decarbonisers, but every attempt to build a competitive solar power station has ended in disappointment. The CSIRO built a large, albeit experimental, solar power unit at a carefully chosen site at White Cliffs in NSW. It was an economic failure. A private company built a large solar generating unit in the Mojave Desert in California using hundreds of parabolic mirrors. It went bankrupt. Solar power costs upwards of \$200 per MWhr and is available only when the sun is shining.

Along with the shift to nuclear power stations it would be necessary to prescribe that most automobiles were to be powered by batteries. Although technically feasible, battery-powered automobiles would be much more expensive, and far less convenient, than the petrol- or diesel-powered vehicles upon which modern economies now depend. The auto-manufacturing industry would doubtless be able to switch from the IC engine-powered automobiles to battery-powered vehicles, and within 20-25 years or so, a very substantial change to the national car fleet could, at least in theory, be implemented. But the inherent inferiority of the battery-powered vehicle means that any investment in its production would be fraught with sovereign risk. For the sake of comparison it should be recalled that the prescribed changeover date from analogue to digital TV signals has been continually delayed, despite the great benefits which would follow from the changeover, and the relatively small amount of money involved.

If it becomes undeniable within the span of a few years, to even the most fanatical environmentalist, that global warming is not occurring, and in particular if we have to endure something like a repeat of the Dalton Minimum¹⁵ of 1795-1820,¹⁶ then the experience will be similar to the effect which the fall of the Berlin Wall and the collapse of the Soviet Union had on the Left throughout the Western world. Belief in anthropogenic global warming has replaced belief in socialism as a unifying cause for the Left, but not just for the Left, since this belief has replaced Christianity in many parts of Europe and the English-speaking world as the religion of the upper classes.

It took 70 years from the Communist Revolution in Russia to the fall of the Berlin Wall in East Germany, and during that period many intellectuals throughout the West placed their talents at the disposal of tyrants who killed many millions of their own peoples. Just prior to the collapse of the Soviet Union thousands of academics throughout the West, including the US, were teaching doctrines of ‘convergence’, and strident opposition to Ronald Reagan’s description of the USSR as ‘the evil empire’ was the *sine qua non* of academic respectability.

Belief in anthropogenic global warming has similar hegemonial status today as belief in ‘convergence’ had in the seventies and early eighties. But just as belief in ‘scientific socialism’ rested on nonsense, so does belief in ‘scientific climatology’ to coin a parallel phrase. The fate of the true believers in global warming will be similar to those who had placed their faith in communism

Two very serious problems now confront believers in anthropogenic global warming. Since 1998 lower tropospheric temperatures as measured by satellite have remained steady or declined slightly, and atmospheric concentrations of carbon dioxide have increased by 4 per cent.

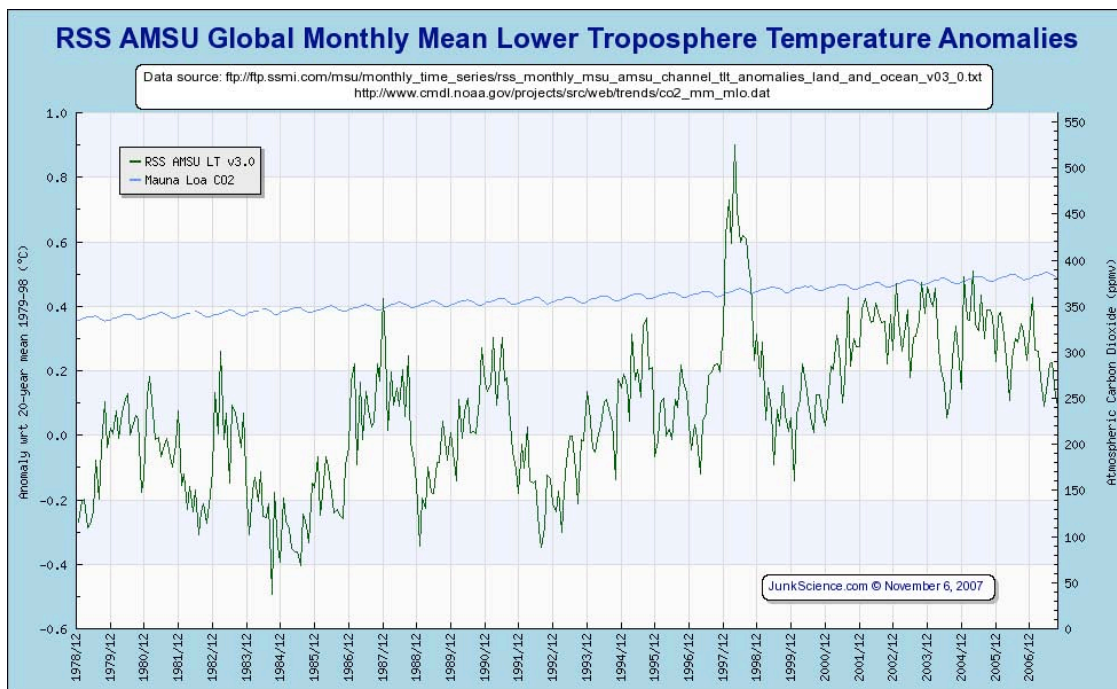


Figure 1: Global Satellite temperatures (1979–late 2007)

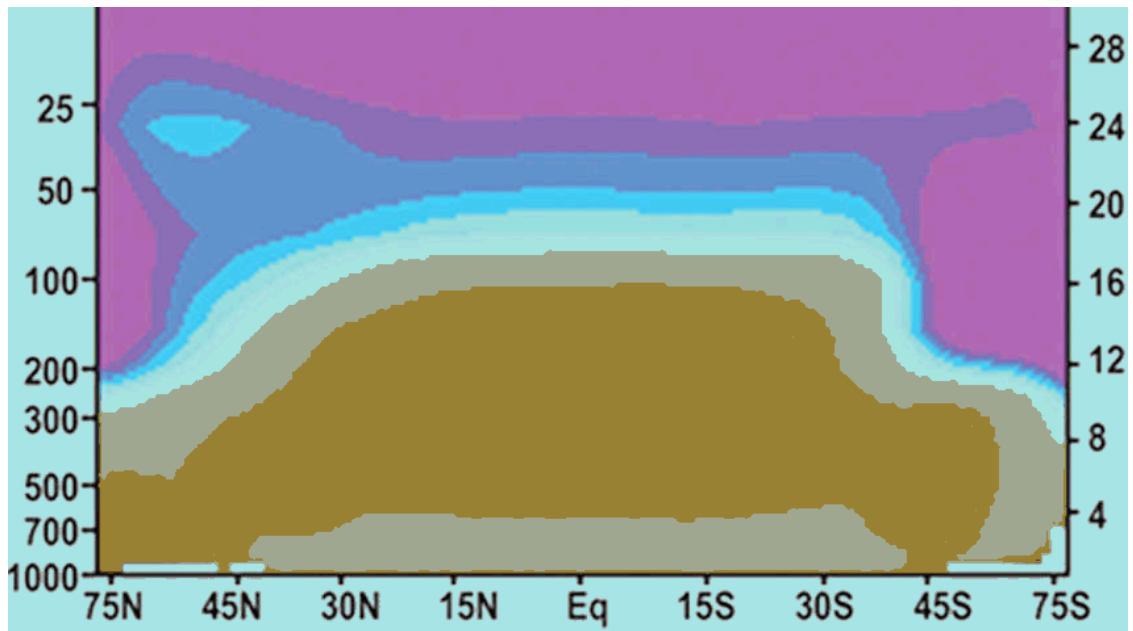


Figure 2: Theoretical Greenhouse Signature (UN climate models)

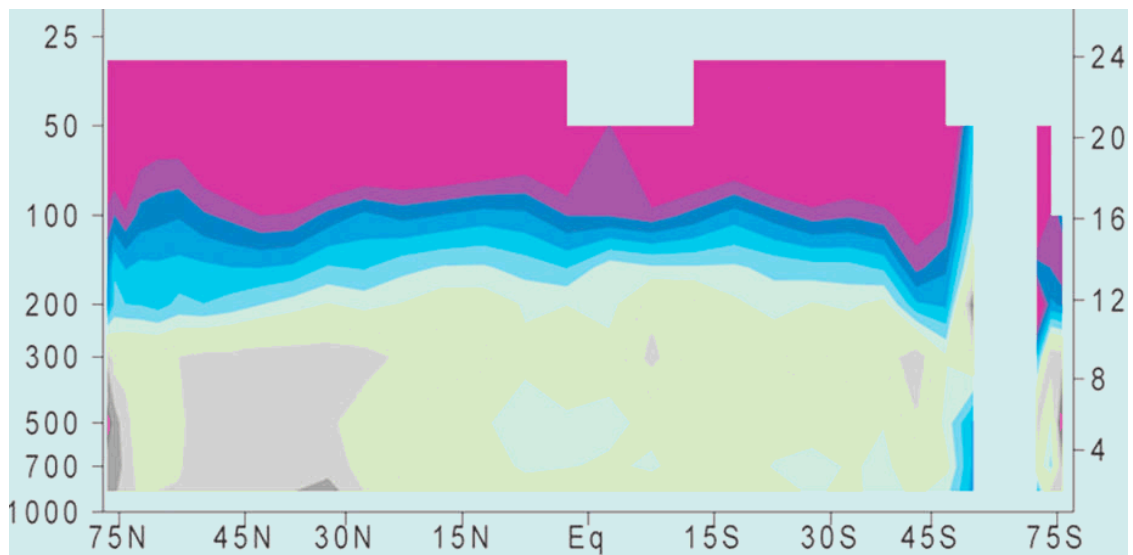


Figure 3: Observed Warming (Hadley Centre radiosonde observations 2006, confirmed by more measurements published in 2007)

Even more damaging to the global warming cause is the complete failure of tropospheric temperatures in the tropical latitudes to increase according to the climate modellers' predictions. Figs 2 and 3 show respectively the temperature distribution required by the climate models as an essential element of their representation of the effects of increasing atmospheric carbon dioxide, and the measured temperature distribution as described in the latest IPCC report.

There is no hotspot in the tropics at 10 km up, so now we know that greenhouse warming is not the cause of global warming, except perhaps to a minuscule extent, so we know that anthropogenic carbon emissions are not the cause of global warming.

While the scientific arguments for the IPCC's advocacy are crumbling, public scepticism about the global warming claims of the Greens and their allies on both sides of politics is increasing. This became manifest in the response to the ABC's broadcast of the documentary *The Great Global Warming Swindle*, and the discussion panel which it arranged after the showing, on 12 July 2007. The ABC producers set out to denigrate producer Martin Durkin and local critics of the global warming scare, but the viewer response to the programme showed a majority of support for the sceptics and the on-line poll was withdrawn from the ABC's website within 24 hours.

Although there have been a few articles published in the broad sheet press by global warming sceptics, and some influential columnists have maintained a position of unwavering scepticism, the overwhelming weight of media opinion has been in support of the anthropogenic global warming scare. The ABC programme of July 12 was the first time a sustained critique of the Greens' claims of global warming had been shown to an Australian audience. The ratings were over one million viewers (unprecedented for the ABC) and the attempts by interviewer Tony Jones to bully Martin Durkin were widely regarded as counter-productive.

Another example of extraordinary media bias is the failure of any Australian newspaper to publish Pope Benedict's statement of 12 Dec 2007 in which he attacked the 'climate change prophets of doom'.¹⁷

2. Specific Issues raised by the Issues Paper

Although Australians are now already paying \$3 billion in hidden costs for the various greenhouse gas mitigation schemes such as MRETS which are already operating, the proposals prescribed in the Issues Paper 1 will impose unknown costs on internationally competitive industries, farming, grazing and forestry. The adaptation 'opportunities' listed in the Issues Paper as available to agriculture and forestry and described in Box 3.1 are discussed below.

A. The use of different breeds.

This proposal emanates from the AGO's belief that methane and nitrous oxide are the main greenhouse gases emitted by the Australian agriculture sector. Not mentioned by the AGO is the fact that atmospheric CH₄ concentrations have declined since 1990, nor has the AGO commented on the absence of any agreed explanation for this decline. (Within the natural gas industry it is widely believed that the repair of the main Siberian-Russian gas pipeline, carried out by the US in the early 1990s, and the end of flaring of huge quantities of methane from Russian oil fields, is the main cause of this decline).

Given any absence of official explanations for this undisputed phenomenon, it is ridiculous to expect Australian graziers to spend time and money trying to develop new livestock breeds which do not emit methane, when all their energies are devoted to staying competitive in a world of significant subsidies to farmers in overseas jurisdictions, and a

domestic situation in which our mineral exports are keeping the Australian dollar at historically high levels.

Further, just as concentrations of water vapour and carbon dioxide in the atmosphere have effectively filled the radiation traps described by Fred Hoyle, and that further increments of these gases have an ever-declining impact on the radiation balance, so the methane and nitrous oxide traps are essentially saturated, and further increments of these gases will have minuscule impact on the radiation balance.

B. Changes in management practices such as the time and pattern of planting, watering and the application of fertiliser.

The user of fertilisers has turned the soils of Australia from shallow and unproductive dirt into an internationally competitive base for crops and pasture. Fertilisers are in themselves energy-intensive products, and the necessary use of distillate in powering the tractors and other equipment required to get the fertiliser into the ground (from the point of view of those who regard carbon dioxide as a demonic gas), compounds the horrors of modern agriculture. For agriculture in particular, the price of distillate is a major cost factor and any attempts to suppress the use of distillate on Australia's farms through carbon tax imposts will be seen as politically suicidal in Australia's rural electorates.

Distillate used on the farm is not subject to excise and farmers are currently paying approx 50 cents per litre. An efficient wheat grower will use approximately 25 litres per hectare per annum, at a cost of \$12.50. Wheat yields vary greatly with the season but an average figure of 1.75 tonnes per hectare is reasonable. Current world wheat prices are high, and Australian wheat growers are now budgeting for a farm gate price of A\$250 per tonne. However, yields in Australia have been very low during the drought and it will take several good years to make up the losses of those years. A litre of distillate contains approx 520 gm of carbon. A carbon tax which doubled the price of distillate to the farmer would be approximately \$100 per tonne of carbon. No doubt such a tax would change farming practices, but would be political suicide for any government which introduced such a tax. Prior to the Great War motive power on farms was provided by horses, and in Australia approximately 40 percent of farm product was consumed on the farm by the horses. Just as wind turbines are a regression to eighteenth century technology so the substitution of diesel powered tractors by Clydesdales would be a regression to the nineteenth century.

The pastoral industry, to a lesser degree, also needs low cost fertilisers and distillate for its competitiveness, and in Northern Australia where the size of pastoral leases is very great, the price of fuel for helicopters is a major cost component.

Our farmers have to compete with overseas competitors who often enjoy significant subsidies. Their attention to innovations which could improve their productivity is therefore unwavering. It is obviously true that the drought has taken its toll on many farmers, and calls for abandonment of the land they have been working for generations is part of the on-going campaign by Environmental NGOs to force farmers to leave the land or to return to the farming practices of the nineteenth and early twentieth centuries.

C. Changed harvesting patterns, rotation periods, improved fire management through landscape change and prescribed burning.

This point presumably relates to forestry. Here the New Zealand experience is instructive.

The NZ Government ratified Kyoto and expected to be a substantial net earner in the carbon credits market because of the carbon take-up by new forest plantings. The Government legislated so that forests were divided into pre-and post 1990 categories. The pre-1990 forests had no Kyoto credits attached to them and no Kyoto liability for cutting them down.

Because wood pulp prices have declined and dairy prices have increased dramatically - thanks in part to the US bio-fuels programme (and because the Government is looking at taxing future conversions to dairying) - enormous tracts of pre-1990 forests are being cut down as rapidly as possible so that the cleared land can be converted to pasture for dairying.

This is especially true of the massive Kaingaroa pinus radiata plantations in the central North Island. These plantations were planted during the Depression in the 1930s on land that is cobalt deficient, but which is now remediable for dairying.

For post-1990 forests the NZ Government first signalled that foresters planting new trees would get Kyoto credits for tree growth (carbon sequestration). The Government then took these credits from the foresters (without compensation) and used them to avoid having to tax emissions on power stations and petrol and diesel powered vehicles. (Naturally the foresters did not think well of this example of sovereign risk and kicked up quite a storm)

As a result of these events, New Zealand is now experiencing net deforestation at the current rate of 11,000 hectares per year. The Government's expected revenue from carbon credits has now turned into a liability estimated at NZ \$960 million.

The NZ Government is now in a bind. In an explanatory note to a Bill before the NZ Parliament the Government stated:

However, the government is limited in its ability to address them (the concerns of the foresters) given the current Kyoto Protocol rules, fiscal constraints, and administrative difficulties in targeting assistance to those most likely to suffer the greatest costs, and its desire to maintain inter and intra sector equity.'

The NZ experience demonstrates that sovereign risk is inseparable from sovereignty, and any attempt by the Commonwealth Government to mesh the forest products industry with carbon trading and the necessary property rights required for such trading, will end up in recriminations, fraud, and huge administrative costs.

A further point has to be made. It is very widely assumed that planting trees will result in extraction of carbon dioxide from the atmosphere and that those who plant trees should receive payments for their contribution to such withdrawal. What is ignored is the fact that at some future date, say 30 years, these tree will be converted to wood pulp, saw logs or furniture, or burnt in a bush fire. In every case almost all of the carbon that has been stored in the tree will find its way back into the atmosphere, immediately for bush fires, within a

few years for pulp or saw logs, and a few decades for furniture. To maintain therefore a continuous net carbon withdrawal through tree planting requires a continuously expanding area of tree planting, or requires that the trees be turned into products whose useful life is longer than it takes to grow the trees. We already see the cutting down of tropical rain forests to provide land for palm oil plantations so that production of biodiesel can expand. It is hard to find a sillier example of political folly than the current policies of the US Bush administration in mandating the use of ethanol as a substitute for gasoline. But the essential point is that tree planting purely for the sake of carbon sequestration, or the cessation of land clearing, are ridiculous policies which have only very minor effect, even supposing that atmospheric carbon dioxide can be used as an instrument of climate control.

Trees should be seen as a crop just like wheat or canola, and grown in order to make a profit.

D. Improved moisture management by increased on-farm capture and storage, residue management, weed control, and increased water efficiency through variety choice.

These matters are constantly at the forefront of farmers' attention. It should be noted in passing that weed control usually involves the use of energy-intensive weedicides and distillate to spread these products on the land.

E. Use of seasonal climate forecasting to aid decision making.

Farmers' fortunes depend critically on the weather, and the farming sector is a substantial consumer of private weather forecasts, despite the competition of a free service from the Australian Bureau of Meteorology, whose record of successful forecasting beyond the four-day range is about 50 percent. It is now widely accepted that Australia's rainfall, particularly on the Eastern half of the continent, is critically dependent on the cycle of El Ninos and La Ninas which originate in the Eastern Pacific. Australia has spent billions of dollars in chasing the illusion of anthropogenic carbon dioxide as a climate controlling agent, and virtually nothing on El Nino research. This is the triumph of fantasy over reality, and governments since the late 1980s are to blame for sustaining this gross misuse of public funds.

F. Use of financial tools to manage risk.

Most farmers use every tool available to reduce the risks which are attendant on both agriculture and grazing. However, there is no such thing as risk-free farming, and the recent example of the reserve price scheme for the wool industry, which ended in many tears, should be a salutary lesson to all those who seek to make farming risk-free.

G. Changes in land use to an industry more appropriate to changes in local climate conditions.

As always with such advice, the question arises: who is to decide which industries are more appropriate? The scepticism which greets the suited adviser whose opening line is

'I'm from the Government and I'm here to help you' is well founded. No one can be sure what changes in local climatic conditions are going to occur. All we can go on are past records which in Australia rarely go back beyond the 1850s. Proxy data on earlier temperatures and rainfall are difficult to obtain. The development of new drought resistant varieties of cereal crops and grasses through GM technology, and the increasing concentrations of atmospheric carbon dioxide, which may well occur during the next half century, will assist Australia's farmers to cope with the inevitable climate change (whether it be cooling or warming) which will occur.

3. Conclusion.

Two fundamental scientific issues are at the centre of this debate. The first is what influence, if any, does anthropogenic carbon dioxide have on the world's climate. The second is what contribution does atmospheric carbon dioxide make to the growth of trees, cereal crops, grasses, and other vegetation.

The answer to the first question is now difficult to deny. The empirical evidence, and the basic science, all lead to the conclusion that anthropogenic carbon dioxide has negligible, if any, influence on climate. This conclusion is, of course, bitterly contested by the Decarbonisers and their allies.

The answer to the second question is uncontroversial. No one contests the argument that increasing concentrations of atmospheric carbon dioxide have beneficial consequences for all vegetation, including crops and grasses.

There are therefore, positive externalities associated with burning coal to produce electricity or aluminium or anything at all which is carbon intensive, and in using petrol or distillate to power our automobiles.

There are three economic issues which the Garnaut Inquiry must address and for which it will bear responsibility. The first is does any measure of decarbonisation by Australia meet any rational test of costs versus benefits? Second, if for some reason of national prestige, or some similar but unquantifiable metaphysical benefit, it is decided that Australia must submit to this self-inflicted wound, then a recommendation has to be made in favour either of a carbon tax imposed without exception on the power stations, aluminium smelters and petroleum refineries of the nation; or a carbon emissions trading scheme, under which permits are either issued or sold to carbon emitters, and then traded on markets established by statute for that purpose.

The arguments against an ETS are now authoritatively established and Shapiro is just one of the many influential economists who have made them. If the Garnaut Inquiry were to recommend an ETS, it would be a major act of folly.

It is difficult to find in the history of the West an event similar to the extraordinary obsession over perceived global warming which has become the background chatter in political life in the English-speaking world (India excepted) and in Northern Europe. Both John Howard and George Bush eventually succumbed to the campaigns against them for their early refusal to be impressed by the claims of the Decarbonisers, and both diminished their reputations in

capitulating to them. Kevin Rudd campaigned aggressively on a platform of “managing climate change” and was taken seriously by all the media, notably Paul Kelly of *The Australian*.¹⁸

Thomas Malthus published his famous essay in 1795 and in the ensuing 25 years the Dalton Minimum brought very cold weather and crop failures to Europe. This conjunction doubtless contributed to the widespread acceptance of his thesis.

In the same way, the recent prolonged drought in Australia has given great impetus to the media campaign on global warming, particularly on TV, designed to promote panic and alarm. The Al Gore movie *An Inconvenient Truth*, which was full of falsehoods, was never rebutted by any Minister or official scientist, and thus many people believed it to be true. Images of empty water storages, parched paddocks and the impact of water restrictions on the lives of the urban majorities have all contributed to this completely irrational fear that by burning coal and petrol we were changing the world’s climate.

As in all bubbles, reality eventually brings to an end the hysteria and the rhetoric of catastrophe. But in the meantime, enormous damage can be done to the nation and the lives and fortunes of many people grievously affected.

Because of the deference which Prime Minister Rudd has shown to Professor Garnaut, and the aura of authority which Mr Rudd has bestowed upon him, the weight of responsibility he now bears is very great indeed. If he proceeds along the path he has outlined in his S.T.Lee lecture and in other comments, he will be remembered, once this contagion has passed, as someone whose early contribution to Australian society was overshadowed by a fearful mistake. If, contrariwise, he pauses for reflection, and proposes a wait and see policy, on the grounds that nothing Australia can do will make any difference to the world’s climate, it may well be that fears of global warming will soon be lumped in with the Y2K bug, the exhaustion of all mineral resources, the imminent Ice Age concerns of the 1970s, and (going back to the mid 19th century), the practice of blood-letting as a cure-all for most ailments, as embarrassing moments which are no longer discussed in polite conversation. If he does recommend thus he will doubtless suffer the opprobrium of the Greens and the rent-seekers who ride with them, but he will also, before long, enjoy the high regard of his fellow Australians.

1. Noted American scholar who published extensively on risk and risk management (amongst other topics) and whose 1982 book *Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers* (with Mary Douglas) was seminal.

2. Introduction to “The Heated Debate “ by Robert Balling Jr, PRIPP, San Francisco 1992

3. The hockey stick graph was such an egregious attempt at rewriting the historical record that two Canadians, Stephen McIntyre and Ross McKittrick, to the extent they were able, analysed the data and methodology use by Mann and came to the conclusion that the algorithms used by him produced hockey sticks, regardless of the input data. The issue was brought to the attention of US Congressman Joe Barton, then Chairman of the House Energy and Commerce

Committee. He wrote to Dr Mann and asked him to make his data and methodology available for scrutiny by other scientists, and was attacked in the most ferocious terms by the anthropogenist scientific establishment for doing so. Undeterred, Chairman Barton asked Professor Edward J. Wegman of George Mason University, regarded as the doyen of computational statistics in the US, to review the hockey stick. Dr Wegman secured the cooperation of two other leading statisticians, and independently they analysed what Michael Mann and his colleagues had done. Their conclusions were damning. The Wall Street Journal summarised a key conclusion of the Wegman report in these words:

In addition to debunking the hockey stick, Mr. Wegman goes a step further in his report, attempting to answer why Mr. Mann's mistakes were not exposed by his fellow climatologists. Instead, it fell to two outsiders, Messrs. McIntyre and McKittrick, to uncover the errors.

Mr. Wegman brings to bear a technique called social-network analysis to examine the community of climate researchers. His conclusion is that the coterie of most frequently published climatologists is so insular and close-knit that no effective independent review of the work of Mr. Mann is likely. "As analysed in our social network," Mr. Wegman writes, "there is a tightly knit group of individuals who passionately believe in their thesis." He continues: "However, our perception is that this group has a self-reinforcing feedback mechanism and, moreover, the work has been sufficiently politicized that they can hardly reassess their public positions without losing credibility."

In other words, climate research often more closely resembles a mutual-admiration society than a competitive and open-minded search for scientific knowledge. And Mr. Wegman's social-network graphs suggest that Mr. Mann himself -- and his hockey stick -- is at the centre of that network.

Thus it has been established at the highest levels of statistical scholarship that the algorithm which the authors used to process tree-ring data from bristle-cone pines in North America not only produced the hockey stick published and promoted by the IPCC, but was able to produce a hockey stick from a series of random numbers. The IPCC has not retracted its egregious error. It carries on as if nothing is wrong with its conduct or its conclusions. If the IPCC were a commercial corporation operating in Australia, its directors would now be facing criminal charges and the prospect of going to jail. *Nine Facts About Climate Change*, 2006, Lavoisier Group, pp 7-8.

4. As the former Canadian Environment Minister Christine Stewart put it:

“No matter if the science is all phony (sic), there are collateral environmental benefits . . . Climate change [provides] the greatest chance to bring about justice and equality in the world.” *Calgary Herald*, 14 December 1998

5. Ian Castles was formerly Secretary of the Dept of Finance and subsequently Australian Statistician. David Henderson was formerly Director of the Dept of Economic and Statistical Research at the OECD.

6. Thomas Malthus *An Essay on the Principle of Population*, 1798

7. Edward Shann, *An Economic History of Australia*, 1930, Cambridge University Press

8. An excellent example of this incomprehension is found in J K Galbraith's *The Great Crash - 1929*, first published in 1955. There is nothing in this book to inform the reader as to how and why the crash occurred, other than the driving force of human greed.

9. Sir Fred Hoyle was arguably the most famous physicist and astronomer of his time. He was a prolific author and noted controversialist in debates concerning the origins of the universe.

10. Fred Hoyle, *Ice*, 1981, Hutchinson, London pp 122-3

Let us look first at the radiation traps. With an average temperature of 14 deg C (with 25 deg C occurring in the tropics), the evaporation rate of water into the atmosphere must always be greater than is necessary to maintain the water-vapour trap. Only the carbon dioxide trap is therefore relevant to this discussion. As I explained earlier, the carbon dioxide trap is highly effective over a wavelength range from 14 microns to 16.5 microns. By blocking the escape of heat radiation with wavelengths in this range the carbon dioxide reduces the radiating efficiency of the Earth by 15 percent.

If carbon dioxide were entirely removed from the atmosphere, the radiating efficiency of the Earth's surface would rise from 60 per cent to 75 percent. Keeping the same reflectivity as before (36 percent) it is easy to calculate that the average temperature of the Earth would fall to 270K (-3 deg C).. . The idea that a removal of the carbon dioxide trap caused the ice ages was suggested more than half a century ago by the Swedish chemist Svant Arrhenius. .

The efficiency of the carbon dioxide trap is insensitive to the amount of carbon dioxide in the atmosphere: increasing the amount five-fold would scarcely change the trap (despite) the stories that are currently being circulated by environmentalists. Only if the amount of carbon dioxide were enormously increased. . . would the trap widen its influence significantly. The trap would not contract very much either, unless the amount of atmospheric carbon ran down almost completely – a condition that would produce a catastrophic reduction in the growth of vegetable material, leading in turn to extinction of animals of all kinds, since animals live by eating vegetation or by eating other animals that eat vegetation.

11. *The Australian* 15 June 2007

12. Prime Minister Singh, at the EAS meeting in Singapore Nov 20, 2007 was reported as follows: India has offered to place a "cap" on the "per-person greenhouse gas emissions" at a level equivalent to a "cap" that the developed countries would be willing to agree upon.

Conveying this to the leaders of the East Asia Summit (EAS) here on Wednesday, Prime Minister Manmohan Singh said his "first priority is India's economic growth" and climate

change issues would be looked at under that prism. India's greenhouse gas emissions were now "much smaller" than those of the developed countries, especially when measured on a "per-person basis." P.S. Suryanarayana *The Hindu*, 21 November 2007

13. Brian Leyland, Auckland based Consulting Engineer specialising in hydro power, power systems and markets.

14. ABC, Counterpoint, 19 November, 2007

15. David Archibald *The Past and Future of Climate*, 2007, Lavoisier Workshop, Rehabilitating Carbon Dioxide, 29-30 June 2007.

16. The Dalton Minimum, 1795-1820, was a period of intense cold and precipitation, well documented in Europe, which coincided with the Napoleonic wars, and which caused immense hardship because of crop failures. It was coincident with solar cycles 4 and 5 which were of very low intensity. In 1816, because of the eruption of Mt Tambora in 1815, Northern Europe had no summer. 1800 was the year William Herschel published his famous paper in which he took the wheat prices recorded by Adam Smith in the *Wealth of Nations* and found they correlated extremely well with the sunspot record.

17. London Daily Mail, 12 Dec 2007

18. For example in *The Australian* of 22 Dec 07 Kelly writes

Consider climate change. Rudd exploited climate change not just as a policy issue but as symbolic proof of Coalition obsolescence and of a Labor mindset geared to the future. Labor's victory means it has the historic task of devising Australia's first comprehensive framework to combat global warming.

Rudd is an enthusiast about protecting the planet and, when Labor idealism is dying in so many traditional policy areas, he exploits climate change as a new vehicle for Labor's social conscience and international citizenship. With political parties desperate to find new causes and meaningful faiths, Rudd sees climate change as basic to Labor's 21st-century identity and as an instrument to keep the Coalition on the margins.