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Neglected truths of climate change

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When contentious issues become long standing and widely discussed their public debate tends to become fixated on particular understandings of certain issues.

Ancillary matters that should be of obvious importance often seem to be strangely ignored. The public debate over climate change is rife with such neglected considerations. Here is a selection of a few of the more obvious ones.

Unprecedented Warming

Climate alarmists claim that the global climate has warmed by about 0.7°C over the past century and that this is entirely due to the greenhouse effect of fossil fuel emissions. Even if one ignores the sundry uncertainties involved in the amount and cause of any such warming and accepts the entire fraction of a degree as real and due solely to the use of fossil fuels, why should this be so alarming? 0.7° is only a small fraction of the warming which occurs daily between night and day or winter and summer or from one day to the next. It is an amount which commonly occurs while one is eating breakfast or within a few minutes of the sun emerging from behind clouds. As an annual average it is about what one might expect from moving a two hour drive along the coast or a hundred metres downhill. In other words, it's barely perceptible, trivial in either detriment or benefit and totally incommensurate with all the dramatic claims being made.

In regard to unprecedented warmth, only a millennium ago, in the Medieval Warm Period, England was a significant producer of wine and Greenland was colonised by Viking farmers; but, despite any recent warming, the climate is still too cold for this to yet be viable again. As for being an unprecedented rate of warming, ice cores from Greenland also indicate that a 10°C warming in only 50 years took place only about 10,000 years ago. At this time humans in the Middle East had already been farming and living a settled life in villages for several thousand years. The rate of warming which occurred then was almost thirty times greater than the current one which is claimed to be so dramatic, unprecedented and dangerous.

The Dire Threat

The idea that a few degrees of warming will somehow wreak havoc on the environment arises from the postmodern mythology of nature as *fragile* and existing in a *delicate* state of *balance* which is *vulnerable* to *collapse* at the slightest *disturbance*. If caused by humans, any detectable effect is described as an *impact*. (If the words in italics seem familiar in this context it is because you will surely have heard and seen them used many times before. They are all favourites of the eco-salvationists.)

This fairy tale view of nature has found strong appeal with the large population of urban non-producers which our increasing prosperity has spawned. Environmentalism offers them a satisfying sense of righteousness and absolves any need of gratitude for the effort from others their way of life demands or guilt about the massive impact it imposes on nature. In reality, the delicate fragile myth bears little relation to the tough, hard, messy and often tragic struggle which is life in nature. This is also the reality with which primary producers must cope in order for the urban cocoon to exist. Without a constant flow of energy, food and water the condition of life in the huge modern urban areas would become desperate within a few days; and ironically, it is where the naïve demands of climate alarmists would quickly lead if fully implemented.

Without exception, the environmental threats from AGW are entirely hypotheticals. They are things which might or could happen at some uncertain time in the future. They are not things which are demonstrably real now or even ones to which mathematically meaningful probability can be applied for the future.

The only reasonably certain effect of increased CO_2 has been a significant greening in arid regions and an increase in agricultural and natural plant productivity attributable to the beneficial effect of increased CO_2 on water use and growth by plants. Certainly there is nothing to indicate that the climate a century ago was the optimum for life on Earth. If anything, a few degrees warmer would probably be a net benefit.

Rising Sea Levels

A repeated alarmist claim involves the melting of the polar ice caps and threat of inundation of low lying coastal areas and islands by a rise in sea level of from a meter, to perhaps several, or even many metres, over the next century. The fact that sea level has been rising since the end of the Little Ice Age and the current rate of about 1.7mm per year (*i.e.* 170mm per century) is no greater than it was a century ago is simply ignored. In the fantasy world of climate sci-fi, predictions based on models always trump real world data.

In dramatizing this threat, the small low lying island nations of Tuvalu and the Maldives have become the poster children for rising sea levels. Their politicians have also not been slow to grasp the potential for seeking financial aid and compensation. In the Maldives this has gone so far as to hold a cabinet meeting underwater using scuba gear to dramatize their need for help. What goes unmentioned in this little charade is that in both places tide gauges show no rise in sea level over recent decades. To the contrary, a recent study of 27 coral islands in the central Pacific found an *increase* in land area of 7% over recent years with 86% of the islands

being unchanged or increased in area. The popular image of sinking islands exists only in the fevered imagination of minds afflicted by the idea of AGW, not by any actual physical effect from it.

Species Extinctions

According to climate alarmists untold thousands or even millions of species will become extinct from climate change. Apparently all these myriad life forms which have survived everything the planet has thrown at them for millions of years will be doomed by only a couple of degrees of warming. Never mind that for 90% of the history of life on earth the climate has been much warmer and it has flourished.

As for actual demonstrable extinctions from AGW, there aren't any. They are all only more things that could happen, maybe, someday. The probability is somewhere between 0 and 1 but that's as close as can be estimated with any certainty.

Dying Reefs

Coral reefs are the oldest and richest of all animal communities. They support a greater diversity of life living closely together than is found anywhere else. Many present day reefs have histories going back millions of years and many of the types of creatures living on them today are also found in very similar form on fossil reefs from over 50 million years ago. Coral reefs have survived everything from asteroid impacts to ice ages and even extensive reconfiguration of the oceans and continents by plate tectonics. Nevertheless, the self-appointed experts of climate change tell us that coral bleaching due to a barely detectable warming threatens reefs with extinction and is already devastating them through coral bleaching events.

What the doomscryers have failed to recognise is that the warm water associated with bleaching events does not come from heating of the atmosphere but is a result of periods of extended calm weather when normal wave driven mixing ceases and a shallow surface layer heats up from the sun. A week or more of calm weather can result in the upper metre or two of the ocean becoming bathtub warm. At the same time wind and wave driven currents also slow or cease and water over the shallow tops of reefs becomes especially warm. Corals on tops of reefs are steeped in this warm water and, as it moves up and down with the tide, large areas of coral can be repeatedly subjected to sudden temperature changes of as much as 5°C or more.

Extended periods of calm are most often associated with El Niño events when the trade winds falter and the calms of the doldrums expand in latitude. The climate models and other studies predict stronger winds from global warming not extended calms.

The strong bleaching events claimed to be due to climate change have all been the result of this kind of El Niño associated calms which have nothing to do with atmospheric CO₂ or global warming. Scars from numerous past bleaching events can be seen in the skeletons of corals over the past thousand years and also in fossil corals from millions of years ago.

The claim that recent bleaching events are due to AGW is simply untrue and can only be either ignorance by the experts if they really don't know any better or deliberate misinformation if they do.

Methane from Livestock

TV advertisements by the current government depict methane generated by livestock as being an important source of greenhouse gas emissions. These ads are a better advertisement for government incompetence than they are for livestock emissions. Termites and wetlands are each considerably greater sources of methane emissions than is livestock. Every one of the hundreds of millions of termite mounds that dot the Australian landscape is a free standing methane generator. Much of the plant material consumed by cattle and sheep in producing methane would otherwise be consumed by termites and still be going to produce methane. It is problematic how much methane production would be reduced, if any, even if all cattle and sheep were eliminated. Certainly it would be far less than is being attributed to them and trivial in comparison to their value. If methane reduction is to be considered such a truly important priority, draining and filling of wetlands would be a far more effective method.

Australian Per Capita Emissions

It is routinely claimed that Australia has the highest *per capita* GHG emissions in the world and thus has a special obligation to start reducing them. This argument ignores two important ancillary facts.

- 1. A large portion of Australia's emissions are attributable to mineral, meat and farm production supplying overseas consumption. Existing forms of alternative energy can do little to reduce emissions from these sources. The only way to reduce emissions would be to curtail production. If this was done the most likely result would be that the overseas demand would be supplied by less efficient producers elsewhere resulting in a net increase in global emissions. In emissions accounting it is also far from clear whether they should be attributed to proximate producers or end consumers.
- 2. While Australia's *per capita* emissions are high, the population is relatively sparse and total emissions are less than the natural uptake from Australia's land/sea area. In the global GHG budget Australia is a net sink, not a source. Australia's international obligation to reduce emissions is a half-baked argument concocted for political purposes. A better case could be made that we should be receiving carbon credits for overseas emissions absorbed here.

Alternative Energy

Proponents of restrictions on the use of fossil fuels and replacing them with renewable energy appear to believe that this is eminently practical and all that it is really needed is to decide to flip some switch from "FOSSIL" to "RENEWABLE". Things like fundamental physical limitations, resource constraints, economics and the foreseeable potential of known technologies are only boring details which "they" will work out.

Meanwhile, back in the real world, there is simply no form or combination of alternative energy which shows promise of delivering anywhere near the price, utility and availability of fossil fuel. Ships, trucks, tractors, bulldozers, and airplanes are not going to be run on sunbeams and summer breezes. High energy liquid fuel is required and no viable substitute for hydrocarbons from fossil fuels either exists or is currently foreseeable. The most imminent problem we face is not going to be from using too much fossil fuel but from finding enough of it to keep our economy functioning and food on our tables over the decades it will require to develop viable alternatives.

Oil in particular is already becoming an increasing problem:

- It is incompressible and requires physical space in which to exist. This is only found in coarse grained sedimentary rocks. It also flows and must be contained by an overlying impervious layer of very fine grained sedimentary rock. It is not found elsewhere and these necessary conditions only occur in relatively limited areas.
- Despite large improvements in exploration technology and increased effort, the trend over recent decades has been for new discoveries to be less than depletion of known reserves.
- In particular the reserves of high quality, easily accessible, low production cost, light sweet crude are rapidly declining.
- Global demand is growing faster than production capacity and supply is increasingly tight. Of the 19 major exporting nations who account for about 85% of net international oil trade, production in all but two is flat or declining and all have their own increasing domestic demand. Recent large deep water discoveries only total world demand for a few months; but, their full production can only be obtained at a rate requiring several decades to complete.
- An already increasing shortfall in conventional production is being met by expensive marginal and non-conventional sources. Future steep price rises and actual shortages seem unavoidable.

The naive faith that all we have to do is decide to develop alternative energy and somehow it will happen with minimal inconvenience to anyone is a happy dream destined for a rude awakening. Barring some unimaginable discovery, it appears we are going to have to learn to live with less and more expensive energy. The social, geo-political and economic consequences of this are ominous. However, unlike the AGW catastrophists, I would be pleased to be found wrong.

Good News is Unwelcome

A seemingly incongruous characteristic of climate change alarmism and environmentalism generally, is that although their proponents profess to be deeply concerned about threats to the natural world they show no interest in any evidence that a threat may not be as bad as they fear. Strangely, such a possibility not only fails to arouse any hopeful interest, its mere suggestion provokes angry rejection. It is obvious their deepest commitment is not actually to

nature but to the threat which affords them purpose, importance, funding, recognition and a delicious sense of righteousness.

In the matter of climate change this aggressive defence of the threat is especially apparent. Any suggestion that the danger may be less than predicted or that some natural cause could be responsible for even a part of the claimed warming is like poking a hornet nest. When the evidence for such a valuable threat resides in less than 1°C of warming, every small fraction of it must be defended at any cost.

Climate Experts

All that is required to become a climate scientist or even assume the title of climatologist is to publish a study or two on almost anything claiming it to result from, be evidence of, or be threatened by climate change. In this manner the ARC Centre of Excellence for Coral Reef Studies at James Cook University in Townsville has become the world' second most cited climate research institution in the world. It is outranked only by the Climate Research Unit at East Anglia University in the U.K.

One may be a biologist or even a geographer, once one has published something climate related and professed acceptance of the one true faith, one is immediately promoted to a status of authority on climate change. If one can find something about which to make a prediction of some catastrophe to come from climate change, worldwide media coverage and notoriety exceeding that of most Nobel Prize winners is assured. One is then accorded as posessing knowledge, expertise and understanding beyond the ken of mere atmospheric physicists, meteorologists, paleo-climatologists and other such unenlightened disbelievers. In recent years whole departments full of such self-proclaimed experts have proliferated across academia like some mutant fungus.

Most of the leading exponents of climate alarm whom media and government accept as climate experts have little or no actual training, experience or genuine expertise in the complex and still poorly understood field of atmospheric dynamics which is fundamental to any real understanding of climate and especially the greenhouse effect. Typically these purported experts have achieved their status as climate experts with little or no other contribution to scientific knowledge outside of alarmist claims about global warming. With careers and status so dependent on the threat of climate change, a fierce rejection of any suggestion the threat may have been overestimated is not surprising. Seeing these puffed up pretenders to climate expertise put on their displays of authority while denigrating any dissent from genuine experts is in itself a rather remarkable scientific phenomenon.

In contrast, the leading climate sceptics are virtually all senior academics with real and well established expertise in related fields. It is indeed the conflict between alarmist claims and their own understanding of well-established scientific facts in their own fields of expertise which has often impelled them to speak out despite the opprobrium which that will surely provoke. After paying a bit of attention and examining what is being said and by whom, it isn't too difficult to determine where the real expertise lies.

Despite all the posturing and puffing of the alarmists, the spew of regurgitated hype from the media, the ignorant braying of politicians and righteous emoting of airhead celebrities, the quiet voices of common sense and genuine expertise have still managed to be heard. Recent

polls clearly indicate that a decisive majority of the electorate have decided the threat has been greatly exaggerated and is much less certain than has been claimed.

Climategate Exonerated

All of the so-called "investigations" which have cleared the Climategate researchers of any wrongdoing have something in common. All have been conducted by organizations which themselves bear some responsibility in approving, funding, overseeing or hosting the research involved. In clearing the researchers of any misconduct they are acting as judge, jury, prosecutor and defence in a trial wherein they are a co-defendant. That they have found nothing wrong is as unsurprising as it is unconvincing.

That the Climategate emails are genuine has never been denied by any of those involved. These messages clearly and unequivocally present evidence of an ongoing conspiracy to:

- Prevent any independent examination of critically important scientific evidence which, in addition, was obtained with public funding and has no commercial value to protect.
- Manipulate data in a manner calculated to mislead the public and government.
- Dishonestly prevent the publication or consideration of research not supporting their own agenda.
- Wilfully corrupt the peer review process.
- Employ coercion and threats to intimidate journal editors.
- Illegally destroy or withhold evidence subject to FOI legislation.

In addition to all this, comments by their own computer programmer regarding the modelling revealed programming deficiencies of such magnitude as to raise serious doubts about any results from the model as well as the scientific competence of those responsible for it.

Regardless of whether any of this behaviour crossed some legal boundary into criminality, when taken as a whole it unequivocally constitutes a deliberate and gross corruption of the fundamental ethics of science. Solely on the basis of their own undisputed words the key participants in this conspiracy are clearly guilty of egregious scientific misconduct. At the very least it warrants public censure, cessation of further financial support and dismissal from their institutions. It also demands a genuinely independent review of the research to determine its validity before any policies are based on it.

The claim by apologists that Climategate is really nothing more than an academic spat with no bearing on the science is a pathetic argument bankrupt of both reason and ethics. Climategate exposed a deep corruption at the very heart of climate science. The failure to acknowledge this and address it has only confirmed the rot.

Peer Review

The current fetish with peer review has arisen entirely in connection with climate change alarmism. Like the claims to authority based on credentials as a "climate scientist", it is a fall back position used by alarmists when they face conflicting argument or evidence they cannot refute. Pre-publication peer review by scientific journals is not, and has never been, a guarantee of quality. It is primarily an editorial aid. Journal editors simply do not have the expertise necessary to make informed judgements over the full spectrum of highly technical research they publish. A bit of knowledgeable advice is essential.

Reviewing a manuscript entails much more than just saying "yeah" or "nay". Typically it involves making suggestions regarding changes and additions about such things as how the content is presented, references to other related work, and the conclusions made. Reviewing is tedious, time consuming and unpaid work. Editors tend to impose such requests on researchers whose own work they have published and for recommending additional reviewers if needed. The number of reviewers usually called upon for a given study is small, in the order of a half-dozen or fewer.

Peer review is not governed by any uniform guidelines. How it is conducted is largely at the discretion of individual editors and the reviewers themselves. The identity of reviewers is often confidential and reasons for rejection not given. Peer review as it is generally conducted is very susceptible to the influence and bias of small in-groups promoting and protecting their own interests. The Internet makes easily possible a far more transparent, open and honest peer review process which badly needs to be implemented.

However, the most important peer review in science is not the pre-publication one, but the one which comes after publication when a study becomes open to the whole of the scientific community to refute, confirm or expand upon. This has in fact been what has been happening in climate science on an informal basis via the Internet. It has been hugely successful in counteracting the bias, exaggerations, misrepresentations and outright falsehoods which have been presented in the name of climate science. It has also been highly effective in drawing attention to the massive volume of research buried in specialist peer reviewed journals which refutes or casts serious doubt on virtually all of the key claims of the alarmists.

Far from being the "Golden Standard" which has been claimed, the attempt by proponents of catastrophic climate change to use peer review to sanctify or censor research in accord with their own agenda has only exposed the bankruptcy of their science.

Funding Bias

Climate alarmists have often made the accusation that climate sceptics are funded by fossil fuel interests, as if this should automatically negate the validity of any argument they may present. The reality is that vanishingly few sceptics have ever received anything from such sources. For the few who have, the amounts have usually been very modest. An honorarium fee for speaking at a conference or reimbursement of travel expenses is typically the extent of such support. The total amounts provided sceptics by industry have been trivial compared to the amounts from the same sources given to environmental NGOs strongly promoting emission reductions.

If any bias is to be assumed due to the influence of funding, surely it must heavily favour the alarmist position upon which billions of dollars in funding have been lavished. When large amounts of money are made available to study a problem the one thing least likely to be discovered is that there actually isn't one. Almost certainly it will be found that the problem is complex and more research is urgently needed.

While research supporting dangerous climate change has been a gravy train offering an easy ride to fame and fortune, the only reward for sceptics has been personal denigration and defamation. If any prostitution of science has resulted from funding it doesn't require a PhD to predict where it is most likely to have occurred.

The Quality of Climate Science

Although the impeccable quality of scientific research supporting the claims of dangerous man-made climate change has been loudly proclaimed, critical examination of key research has repeatedly found it to be at best inconclusive; and, in a number of important instances, it has been found to be misleading or even false. Unfortunately, the myriad technical details involved in all this quickly lead to confusion.

Fortunately, there is another much clearer and simpler way of evaluating the quality of AGW science. A core tenant of the scientific ethos is the open honest pursuit of understanding wherein truth is the paramount virtue and all relevant evidence must be considered. Essential to this aim is a process whereby all materials and methods are disclosed and whenever practical made available for independent examination and verification.

In the matter of climate change science these basic tenants of science have been repeatedly violated. Methods and materials have not been disclosed or made available. Requests for them have been outright refused, even when the effort of doing so was as trivial as copying a computer file. Repeatedly the funding and publication of research which does not accord with the claims of dangerous climate change has been blocked. Conflicting evidence and research already available has been repeatedly ignored. Such refusal to consider opposing evidence has included widespread refusals to participate in public debate with any scientist who questions their claims. Personal denigration of anyone daring to dissent about any aspect of the alarmism has become an accepted norm and some prominent alarmists have even advocated Nuremberg style legal sanctions to punish dissenters.

In short, the alarmist research community has openly, repeatedly and flagrantly violated every aspect of the core ethos of science while proclaiming themselves to be scientists of impeccable authority. Somewhere over the past few decades our system of scientific training and research has obviously departed from the very fundamentals of science. We now have many researchers who appear to conceive of science as some form of technically based advocacy in the service of political and environmental correctness. Climate science with its generous funding, claim to great importance, and aura of high moral purpose seems to have attracted a disproportionate number of researchers untainted by any bothersome attachment to honesty or the ethos of science.

Getting Priorities Right

For the past two decades climate alarmists have proclaimed dire warnings of immanent catastrophe and that immediate action is imperative to avoid certain disaster. The void in evidence has been filled by appeals to precaution and cost concerns simply dismissed. Expense is no consideration when you are saving the world.

Meanwhile, the manufacturing monopoly enjoyed by developed economies has slipped away to the developing nations and the technical/educational lead is following the same path. In this process the Western nanny state model has become a bloated sick caricature of free markets, self-reliance and democratic freedoms, systemically infected with bureaucracy, restrictions, taxes and debt.

This situation is not some uncertain future prediction. It is here now, already serious and growing steadily worse.

Now is the very worst of times to divert ourselves into a vastly expensive, quixotic, tilt at windmills under the delusion we are preventing climate change. Alternative energy must surely come anyway, but can happen only if and when it is possible, practical and affordable. Trying to force the premature adoption of costly inadequate energy technology at a time of great socio-economic stress can only lead to a self-inflicted disaster.

A global economic recession led by the developed economies is already well underway. The malaise is chronic and growing. Although the effects differ between economies, none is immune. Australia is better positioned to weather the coming storm than any other nation but only if we get our priorities right and don't throw away our advantage in self-imposed nonsense.