



Global Warming & Peak Oil Negate Conventional Wisdom

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This is a guest post by Ian Dunlop, originally printed as an opinion piece in the Australian Financial Review on January 2.

Ian was formerly an international oil, gas and coal industry executive. He chaired the Australian Coal Association in 1987-88, chaired the Australian Greenhouse Office Experts Group on Emissions Trading from 1998-2000 and was CEO of the Australian Institute of Company Directors from 1997-2001. He is Chairman of the Australian National Wildlife Collection Foundation (CSIRO), and Deputy Convenor of the Australian Association for the Study of Peak Oil.

“ Men Argue, Nature Acts” – Voltaire

The impact of global warming is building far faster than scientists had predicted, with extreme weather events in Australia, the US, Europe, Africa, China or Bangladesh, the rapid melting of Arctic sea ice, carbon sinks turning into carbon sources etc. Recent comments from economists and industry representatives, urging a cautious, gradual response, might have been appropriate a decade ago, but no longer.

They miss two crucial points. First, the response to global warming is not primarily an economic issue; rather it is risk management. Second, the risks are escalating rapidly.

The economic case is built primarily around a middle-of-the-road view of global warming, designed to limit temperature rises to 2 degrees C above pre-industrial conditions, with extreme outcomes being downplayed. But with such a potentially catastrophic issue, risk management must address the extremes.

The reality is that rapid non-linear climatic change is occurring with only the 0.8 degrees C temperature rise we have experienced to date. A further 0.6 degrees C temperature rise is inevitable due to the momentum of historic emissions, which will take us to 1.4 degrees C above pre-industrial conditions irrespective of any action we take, whilst emissions in the next few years are forecast to reach record levels.

Thus we are already in the zone of dangerous climate change, possibly close to irreversible climatic tipping points; we must re-calibrated our thinking and initiate action very fast if we are to have any ability to contain the problem. Global atmospheric carbon concentrations must be reduced from the current 430ppm CO₂ e to around 350ppm CO₂ e.

We are also close to the peaking of global oil supply. Oil does not run out, but supply can no longer expand to meet increasing demand due to technical constraints, irrespective of the oil price. The peak may well manifest itself as an undulating plateau for some years, as demand is destroyed by,

for example, developing countries backing out of the oil market, but cheap energy is unlikely to reappear. This is already showing up in our escalating oil import bill.

Our real challenge is to manage the convergence of these issues. This will require emergency mobilisation, globally and locally, to create a low-carbon society. As the world begins to realise what confronts us, sensible policy would unfold along the following lines:

The UNFCCC process would be mobilised on an emergency footing, to provide coordination to contract global carbon emission by 40% by 2020 and 75% by 2050. The global task is allocated between countries using the principle of convergence from today's unequal per capita emissions, to equal per capita emissions by a date to be negotiated, say 2040. This would allow the developing world to continue poverty alleviation with emissions rising initially, then declining, whilst developed country's emissions, including Australia, reduce rapidly from the outset, typically by 50% by 2025 and close to 100% de-carbonisation by 2050.

Kyoto 2 must be accelerated to provide the framework for this contraction and convergence, for international emissions trading, and for technology transfer to assist the developing world to adopt a non-fossil fuel energy growth path.

The resulting Australian carbon reduction budget would be achieved via domestic emissions trading, preferably extended to include personal carbon allocations and trading to trigger rapid behavioural change, along with other incentives to hasten the transition to a low-carbon economy. The latter would include a major focus on renewable energy, with nation-building, big picture, projects such as a renewable energy grid along the lines of the European TREC concept and an expanded, renewable-powered, rail system.

Energy efficiency and resource conservation will be paramount, using both regulatory and market mechanisms. Perverse subsidies encouraging carbon emissions will be removed. High quality, efficient public transport, cycling, walking will be encouraged, integrated with urban planning. World best practice vehicle emission standards will be mandated, with much of the Australian car industry converted to hybrid and electric car manufacture. High-speed broadband access becomes essential, to speed de-materialisation, reduce travel burden etc. A halt is called to further expansion of freeways to constrain expanding vehicle use, with congestion taxing on vehicles in capital cities. Airlines and international sea-freight bunkers are included in emissions trading, with cheap air travel curtailed. Supply chains will shorten and local production expand.

No further expansion of coal export projects, or domestic coal-based projects, should be approved until all carbon can be safely sequestered on a long-term basis. The existing coal industry is phased down if carbon sequestration technology is not viable within 10 years, with re-training of personnel into the expanding renewable energy industries.

Globally, the IEA would be charged with developing an Oil Depletion Protocol to equitably share available oil, akin to the Kyoto Protocol for carbon, a similar if enlarged role to that for which it was created during the 1970's oil shock.

Above all, societal and corporate values will be recast around long-term sustainability, not short-term profit maximisation, with corresponding changes to criteria for success, governance, incentives, taxation etc.. Conventional economic growth and rampant consumerism cannot continue in a world moving toward 9 billion people.

If we are to have a reasonable chance of maintaining a habitable planet, prudent risk management suggests these changes are long overdue. We only play this game once; a trial run is not an option.



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