Comments on Background Paper by Michael T. Clark

Preamble

Michael Clark's paper gives an excellent summary of the institutional framework, mechanisms and instruments being contemplated in addressing climate change post-Copenhagen, when viewed from the perspective of conventional diplomacy and economics. Unfortunately it fails to recognise that the challenge we now face from climate change is far more immediate and extensive than political, corporate and military leaderships globally, and international institutions, are so far prepared to acknowledge, at least publicly.

In short, whilst the paper would have been entirely appropriate a decade ago, it fails to recognise the rapidly widening gap between the credible science and public policy, particularly over the last two years. We now have to address an entirely different problem as a matter of extreme urgency. This requires a re-calibration of our global response if we are to have a reasonable chance of minimising the risk of catastrophic climate change.

Whilst this view may have been seen as extreme only some months ago, it is rapidly becoming mainstream as the scientific evidence of the risk of tipping points and non-linear climate response becomes more obvious.

Why the urgency?

The credible science has been warning for years of an increasing risk of approaching climate tipping points which would potentially move major areas of the world into a new climatic state far less conducive to human development. This is difficult territory, as inevitably there are major uncertainties with the science given its complexity. Natural caution combined with the desire to retain credibility has, if anything, led scientists to underestimate the risk rather than the reverse.

In addition, as we move closer to real action on climate change, denialist fervour is reaching histrionic proportions and diverting attention from the real issues. This was inevitable and it is likely to escalate further, as demonstrated by the recent McCarthyist response to the latest climate science by some elements in US politics, spurred on by well-entrenched vested interests. Unfortunately none of the denialist arguments can answer the rapidly evolving empirical evidence that we are fast moving into unknown climatic territory, on the balance of probabilities as a result of anthropogenic activity.

I do not have time in this paper to provide a full scientific justification for the above, but consider the following, which are among several key climate change trigger points demanding a radical change in our response:

Arctic summer sea ice decline:
http://nsidc.org/images/arcticseaicenews/20100406_Figure3.png

Arctic / Antarctic ice mass reduction:
http://www.columbia.edu/~mhs119/IceSheet/

East Siberian Arctic Shelf Methane destabilisation:
http://climateprogress.org/2010/03/04/science-nsf-tundra-permafrost-methane-east-siberian-arctic-shelf-venting/

Soil Carbon Emissions as temperature increases:
http://climateprogress.org/2010/03/25/nature-soils-carbon-dioxided-feedback-global-warming/

Amazon Dieback:
http://climateprogress.org/2010/03/19/amazon-forests-drought-ipcc-feedback-debunk/

Linkage between Climate, Geological & Tectonic factors (not least volcanoes!):
http://climateprogress.org/2010/04/19/global-warming-link-volcanoes-earthquakes-landslides-tsunamis-royal-society-scientists/#more-23221

These are issues which have been of theoretical concern for decades, but which are now starting to manifest themselves physically. The inertia of the climate system, particularly the slow warming of the oceans, means that the results of our emissions today only become evident decades hence. Thus unless we take rapid emergency action now, we will probably be locking in major irreversible climate change of catastrophic proportions for future generations; indeed we may have already done so. A difficulty in gaining acceptance of this thesis is that conventional economics heavily discounts such future events.

The appropriate method of handling such high impact, low probability events, the so-called "fat tail" conundrum, has been well explored by Harvard's Martin Weitzman, arguing that conventional cost benefit analysis is entirely inappropriate in such circumstances. See:
http://www.economics.harvard.edu/faculty/weitzman/files/REStatModeling.pdf
The validity of this argument is beginning to be accepted by the mainstream, see Paul Krugman:
http://www.nytimes.com/2010/04/11/magazine/11Economy-t.html?pagewanted=1

Unfortunately the latest science suggests that the supposed low probability of these events occurring is increasing significantly. Given the serious implications for future generations, we should base solutions far more on ethical and moral grounds than on economics.

All of which leads to the conclusion that the global response to climate change has to be moved to a genuine emergency basis, rather than being seen as incremental change to "business-as-usual", which is where most current debate is stagnating.

Specific Points on the Paper

(In the above context - written in haste, so pardon the brevity!)

1. The subject of discussion is "Governance Challenges in Financing Green and Sustainable Energy Policies". The paper focuses on climate change, which is certainly a major factor, but it ignores another major energy factor which will probably have even more immediate impact, namely peak oil. Again, until very recently this has been consider an extreme, unlikely event by the "global energy establishment", but it is now moving into mainstream thinking, euphoria (possibly misplaced!) over unconventional gas notwithstanding.
   See IEA World Energy Outlooks 2008-9: http://www.worldenergyoutlook.org/
   and: http://seekingalpha.com/article/196876-officials-wake-up-to-peak-oil
   Peak oil may well mean we are trying to address climate change and other environmental issues concurrently with the rapid decline of our staple energy source – the implications of this interaction have received minimal attention.

2. Population growth and consumption patterns must also be addressed. Indeed the governance challenge is more about societal and attitudinal change than it is about technology and economics. We have the technological solutions; what is lacking is the political and societal will to accept the real challenge and act accordingly.

3. The "Shared Premises – Appendix 1." are unfortunately no longer relevant in the face of the latest science. 450ppm CO_2e will give only a 50% chance of containing temperature below 2°C, and 2°C is far too high in the light of the latest evidence. We probably have to aim for 1-1.5°C; the upper end of this range was at least acknowledged in the Copenhagen Accord. Emission reductions need to be in the range 40-50% by 2020 and 100% by 2050, way beyond current political perceptions. Many regard this as impossible, but it is only so if viewed from a "business-as-usual" mindset. In the light of a genuine emergency, other approaches become possible – "thinking the unthinkable" rather than the "art-of-the-politically-possible".

4. Another key implication is that to have a reasonable chance of remaining even below 2°C, we can only afford to use globally less than 30% of the current proven reserves of fossil fuels. In the absence of effective carbon capture and storage (CCS), which is unlikely to eventuate within a reasonable time frame, if ever at the scale required, coal combustion has to be shut down rapidly. We should also question why investment continues to pour into increasingly expensive and unsustainable oil exploration and tar sands rather than into sustainable alternatives?.

5. The pros and cons of the two governance models suggested, UNFCCC and the Copenhagen Accord, are accurately summed up in the paper, but neither as currently constituted are likely to provide the framework for the response we need. The UNFCCC has had twenty years to achieve a result, but has achieved virtually nothing thus far to address climate change. In fact we are exceeding the worst-case scenarios for emissions growth, with no sign of that changing. The Copenhagen Accord, if developed as discussed, will lock in minimalist responses which have no hope of solving the problem. We have simply run out of time to allow these "conventional" processes to work.

6. Further, the theoretically sound policy instruments that are the subject of most policy debate, such as emissions trading, have been so emasculated by political horsetrading in Australia, the US and Europe, that their implementation will be worse than useless, in that they will impose major inequitable costs on economies whilst doing nothing to reduce emission. In the process, the instruments themselves become totally discredited.

7. However, there is a mechanism that has not been mentioned that does have some hope of working, and with which we have recent experience. Namely an emergency response akin to that used to resolve the Global Financial Crisis. In the space of a few weeks the world was able to put together emergency rescue packages, encompassing trillions of dollars, to address a problem which, whilst important, was far less fundamental than climate change. We now have the opportunity to use that experience in a wider context – we should not shirk from the task, but it requires very different thinking from that manifest in current debate.

8. There is much discussion on new mechanisms to handle global governance in the context of the major challenge now faced by humanity arising from the convergence of issues such as climate change, energy security and burgeoning population. But there is virtually no preparedness to be honest about the size of the challenge; until that honesty is forthcoming, it is impossible to design realistic solutions. It may well be that both the Copenhagen Accord and the UNFCCC models have a role to play within the umbrella of an emergency response; the former to catalyse action by the major emitters, and the latter to build a global coalition in support. But there has to be a common emergency objective, as set out above The Green Fund mentioned in the paper may well form part of such a response.

9. This response should also incorporate far simpler and more transparent policy instruments to cut through unnecessary complexity and overcome the lack of credibility of current policy, break the grip of vested interests and put a realistic price on carbon. For example the fee-and-dividend model proposed by James Hansen and others, see: http://www.columbia.edu/~jeh1/mailings/2010/20100112_PeopleVersusCap.pdf
It will also require fundamental re-thinking on, *inter alia*, the concepts of economic growth, corporate governance and remuneration incentives, to focus on long-term sustainability rather than short-term profit maximisation.

10. Finally, we should recognise that restructuring the global economy on to a genuinely sustainable basis should not be seen as the debilitating cost impost portrayed by most media and political commentators, but as the enormous opportunity for technological innovation, job and wealth creation which it really represents.

As that closet socialist, Milton Friedman put it:

"Only a crisis – actual or perceived – produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable."

Ian Dunlop - in absentia
Venice
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Ian Dunlop has wide experience in energy resources, infrastructure, and international business, for many years on the staff of Royal Dutch Shell. He has worked at senior level in oil, gas and coal exploration and production, in scenario and long-term energy planning, competition reform and privatization.

He chaired the Australian Coal Association in 1987-88. From 1998-2000 he chaired the Australian Greenhouse Office Experts Group on Emissions Trading which, under the Howard government, developed the first emissions trading system design for Australia. From 1997 to 2001 he was CEO of the Australian Institute of Company Directors. Ian has a particular interest in the interaction of corporate governance, corporate responsibility and sustainability.

An engineer from the University of Cambridge, he is a Fellow of the Australian Institute of Company Directors, the Australasian Institute of Mining and Metallurgy and the Energy Institute (UK), and a Member of the Society of Petroleum Engineers of AIME (USA).

He is Chairman of Safe Climate Australia, Deputy Convenor of the Australian Association for the Study of Peak Oil, a Director of Australia 21, a Member of The Club of Rome, a Fellow of the Centre for Policy Development, and a member of Mikhail Gorbachev's Climate Change Task Force. He advises and writes extensively on governance and sustainability.
