Life after Copenhagen

There is no "Plan B"

By

Michael Clancy

> *At the time of writing the first week of the mammoth Copenhagen conference on Climate Change has ended and after all the posturing, it will be time to get down to work to see whether any meaningful agreement is possible.*
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> *It is not overdramatizing the situation to say that the life of the world, certainly of humankind, may well depend on the outcome of this meeting. Are we capable of saving ourselves and what sacrifices (if any) are the world's most avaricious consumers prepared to accept as the price of such change? While government's around the world appear to have woken up to the need for drastic action; in many places and especially the Western democracies, their constituents are not yet entirely convinced. Something could unravel in the process. When tough and unpopular decisions need to be taken, is the future trend towards greater autocracy and less participative government?*

The sceptics may still seek to sow confusion but make no mistake about it, the world's weather is changing as a response to atmospheric warming and humans are responsible for it.

There is now a general consensus among the scientists and the informed community that human induced activity is responsible for the recent rapid change although there is not yet a clear consensus on what to do about it. Copenhagen is supposed to fix that although whether it will or not remains to be seen. Conferences, especially those sponsored by the United Nations, are notorious for their lofty pledges made while the world's media spotlights are on the leaders, but what matters more is the commitment to follow-through afterwards, and here the record is not all that great.

We have known about global warming for the past thirty years or so. What has given urgency to the debate is the rapid increase in the rate of warming and our ability to correlate this with the rise in atmospheric carbon dioxide (CO_2), most famously represented in what is known as the "Keeling Curve" which shows the rapid exponential rise in atmospheric carbon. Carbon concentration rose from around 315 parts per million in 1960 to 370 ppm by the turn of the millennium and 383 ppm by 2007. To put these numbers in context, in 1744, at the start of the

industrial revolution, atmospheric CO_2 was at 277 ppm. A level somewhere between 450 and 550 ppm is generally agreed to be the "tipping point" at which point the change becomes irreversible.

The Intergovernmental Panel on Climate Change (IPCC), an international body that draws in leading climate scientists from around the world. in its 2007 report concluded that "*the warming of the climate system is unequivocal*"

Greenhouse gases, most notably CO_2 from the burning of fossil fuels are responsible. Human induced activity generates around six billion tons of CO_2annually. About half of this is released permanently into the atmosphere while the remainder is absorbed by the world's oceans which have become noticeably more acidic over the past hundred years.

And these emissions continue to rise. Atmospheric models related to carbon content suggests that over the course of this century, global temperatures are likely to rise between 1.8 and 4 degrees Celsius and sea levels will rise by around 2 feet (61 cm). It gets worse. These calculations factor in atmospheric CO_2 absorption but not the effects of melting ice. Yet ice is starting to melt at an alarming rate. Greenland has warmed by 4°C since 1991 and the ice caps of both Greenland and Antarctica are melting as are the Himalayan, Alaskan and European glaciers. In the summer of 2007, the Arctic Ocean had 23 per cent les permanent ice cover than it did in 2005. This not only means rising sea levels but also – because of reduced reflectivity and greater absorptive capacity – the rate of global heating is increasing further. At present rates of decline in the polar ice cap it will be possible to sail to the North Pole during summer months by 2015.)

Global industries are blamed for most of greenhouse gas emissions although studies have shown that everyone is contributing to the problem simply by driving a car or watching television at home. Software companies such as Microsoft Corp. are not spared from such criticism, and analysts say Microsoft's recent Windows operating systems, Vista and Windows 7, (combined with the phasing out of support and patches for older operating systems) has rendered millions of older computers obsolete, creating a demand for new laptops and desktops than can handle these new systems. Building in obsolescence has consequences.

Outside of manufacturing, commercial establishments, offices and service providers also contribute to global warming, because they use electricity generated by coal-fired power plants and diesel generators, which emit hot gases to the atmosphere. Transport companies and individual cars, which run on gasoline and diesel, are also major contributors to the problem.

A recent report from the US-based National Geographic suggested that "*if climate scientists are right, humanity needs to reduce greenhouse gas emissions by up to 80 percent by 2050*." While

governments need to take the lead in making the implications of failure to act known and accountable, the private sector too needs to support the government effort in adhering to global standards of energy efficiency as they become available.

For the manufacturing sector this includes ensuring that equipment runs at optimal efficiency and that both lighting and air-conditioning is consistent with "green" practices. For an office, just the simple act of changing the thermostat on air-conditioners and turning them off thirty minutes before daily closure will have little effect on employee comfort but will reduce electricity consumption significantly. It also means rethinking the design of upscale housing developments and the propensity of families to live in ever-larger single-family homes.

Looking at individual countries, the United States and China have the largest carbon footprints which is why the spotlight has been on these two at the Copenhagen meeting. Other major contributors to atmospheric CO_2 include the Euro area, Japan, China and Russia.

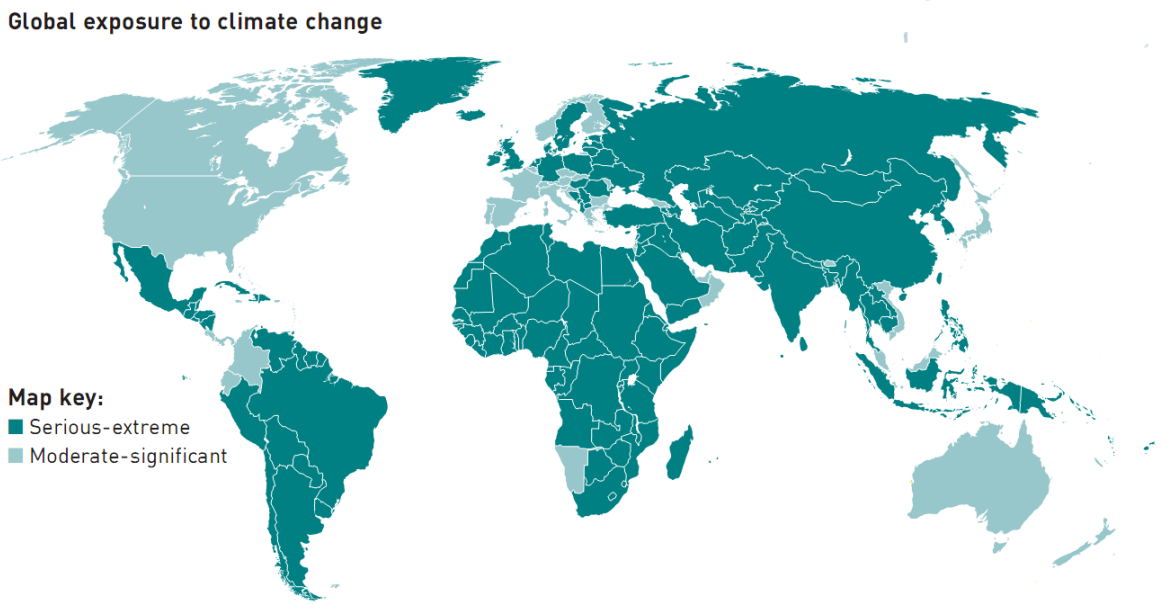
But amore telling measurement is the *per capita* carbon footprint. Looked at through this prism, the map looks quite different. Unsurprisingly those living in the oil producing countries of the Middle East have the highest footprints—residents for Qatar by way of example, are ach responsible for around 56 tCO_2e per person per year. At the other end of the spectrum, many of the poorest African countries have footprints of 0.1 tCO_2e per person per year or even less.

The United States, Canada and Australia are among a small number of countries emitting more than 15 tCO_2e per person per year, a reflection of the high energy, high consumption lifestyles in these countries (plus of course, being large countries, the amount of energy consumed by the transportation sector). Japan, Korea and much of Europe (Luxembourg is an exception) fall in the range 5–10 tCO_2e while for the developing world – and even the newly emerging economies – the figures are much lower. The figure China for example is 4.6 while for India it is only 1.3.

This takes us to the heart of the dilemma and the politics of the current debate. It threatens to create a further divide between the 'haves' and the 'have-nots.' Global warming is foremost a consequence of industrialization and the propensity to consume on the part of those living in developed nations. It is a direct consequence of the burning of fossil fuels for energy.

A secondary major cause is the clearance of forest land in the developing world – particularly in the Amazon Basin and in Indonesia for agriculture, industry or human settlement.

But rich or poor, we will all be affected by the changing climate. Nevertheless it will be those living in developing countries or within coastal communities even in developed countries who are at greatest risk.



A 2007 report by London-based International Alert divided the world into those regions likely to experience moderate to significant climate change as a result of global warming and those where the changes would be serious to extreme. Asia is both the most populous area of the world as well as being among the most seriously affected. (International Alert 2007). This has implications for Australia.

This enables us to focus on another aspect of global warming – it is not only rising temperatures and sea levels that we have to contend with but an increase in what has been termed "extreme weather events." Catastrophic storms, sea surges and temperature extremes that previously would have been described as "once in a lifetime" events are now, in some places occurring with much greater frequency. The Philippines, by way of example, has been hit by three typhoons (cyclones) in 2009 that were each described as "once in a century occurrences." In Australia, damage t coastal communities from a one metre sea level rise and increased extreme weather occurrences is currently put at around A$63 billion. The implications of this for the insurance industry are obvious.

But while the present reaction of many in the developed world to a changing climate may be the inclination to turn up the air conditioner a notch, those in the developing world are not as fortunate. As the map shows us, for most of the world, and almost the entire developing world, the consequences of climate change will be severe to extreme.

India, Africa and much of Southeast Asia is likely to face declining agricultural productivity combined with increased health risk and a shortening of life expectancy reversing much of the gain made over the past half century.

Those individuals who are already integrated into the global workforce will increasingly be inclined to seek a permanent safe-haven for themselves and their families in such places as the United States, Canada, Australia and New Zealand. For those at the poorer end of the spectrum, many will be forced to migrate away from their threatened communities to other would-be safe havens through traditional nomadic migratory patterns. Ethnic conflicts and tribal rivalries will likely be exacerbated as a result. In such a climate (no pun intended) can democracy survive or will the constant state of crisis lead to an upsurge in authoritarianism?

The future could be frightening unless the developed world – and especially the high footprint countries – are prepared to take the lead at Copenhagen and in its aftermath support measures at both the corporate and individual level that would put a effective price on carbon. It matters little that India has a higher footprint overall than Australia. Do Australians (or others in high consumption societies) really expect the poor of India or Africa to tighten their belts further so that they can have a third car in their garage?

The real worry is that while most Western governments appear to be prepared to bite the bullet and take a resolute stand on emissions trading schemes as well as funds to enable the developing world to adapt, they may not be bringing their constituents along with them. A recent opinion poll conducted by one Australian newspaper showed that far more Australians believed that the evidence for human-induced climate warming was inconclusive and that more work needed to be done before implementing an emission trading scheme, than those who were prepared to accept it. Somewhere the message is getting lost.

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