



## Editorial Reviews

### Product Description

We can save the planet in seven years and Bill McGuire is here to tell us how. For the past decade, Professor McGuire has been running the largest academic hazard research centre in Europe, advising governments and multinationals on natural disasters and climate change. In *Seven Years to Save the Planet*, he explains how each one of us, acting collectively, can make a real difference in the battle to control carbon emissions, with his comprehensive plan of attack and a few simple steps we can halt and reverse this disastrous process for good. Anyone concerned about the future of this planet will find this startling text an essential read. The time for change is now.

### Product Details

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#### 4.8 What is the fairest way of controlling emissions?

Contraction & Convergence (C&C) is based upon the simple and fair principle that everyone on the planet has the 'right' to emit the same amount of carbon dioxide. International agreement would define progressively lower ceilings for global emissions, with each country allocated an emissions quota eventually proportional to the size of its population. A developing country unable to use its allocation could trade entitlements to emit with an industrialised nation that needed more. A well-publicised goal of C&C is the convergence of emissions so that every human emits about one third of a tonne of carbon dioxide every year, leading to the stabilisation of greenhouse gas emissions at around 450 ppm in 2100.

There is a way of cutting global greenhouse gas emissions that is equitable, sensible and workable. It is called *Contraction & Convergence*, or simply C&C, and it is the brainchild of the South African musician Aubrey Meyer, founder of the London-based Global Commons Institute. Meyer is one of the most extraordinary characters on the climate change activist 'scene', who grasped the urgency of finding a viable solution to climate change earlier than most of us realised that there was a problem. Almost two decades ago he gave up a professional music career that included playing with the London Philharmonic Orchestra and writing for the Royal Ballet, to focus on the issue. Through the vehicle of the grand-sounding Global Commons Institute, which was actually launched in Meyer's bedroom and remains close to being a one-man band, the C&C concept has been forced onto the world stage by Meyer's unstinting enthusiasm and incredible work rate. So successful has the lobbying process been that C&C is now a serious contender in terms of forming the basis of the post-Kyoto climate agreement that will, fingers crossed, be signed at Copenhagen in 2009.

So what is C&C all about? The underlying principles are simple and democratic: first, that greenhouse gas emissions must be reduced to ensure 'safe and stable' concentrations in the Earth's atmosphere; second, that the mechanism used to accomplish this must be fair to all, and should therefore be based upon the idea that every man, woman and child on the planet has the 'right' to emit an equal amount of greenhouse gas. The first stage would see all nations agreeing upon a stable atmospheric concentration of carbon dioxide in the atmosphere. Next, a global emissions 'contraction' budget would see global emissions progressively brought down so as to be consistent with an atmospheric concentration considered to be safe, perhaps reviewed annually in order to take account of new science. This global 'carbon cake' would then be shared out regionally, for example to the EU, African Union, and the US, in the form of tradable entitlements, with individual countries negotiating their own quotas within these bigger 'slices'. As the global carbon budget is progressively contracted, so the allocation of emissions entitlements would converge, by a specified date, towards individual country quotas proportional to national populations. The advantages of this are manifold. It is scrupulously even-handed, complicated negotiations are not needed, every country would have a target, and the agreed levels for overall emissions can be linked to scientific criteria for preventing dangerous climate change. The mechanism also permits emissions trading so that developing countries unable to use up all their entitlements can sell these to industrialised countries desperate for more.

A suggested working goal for C&C has been the stabilisation of the carbon dioxide concentration in the atmosphere at 450 ppm by the end of the century, which would require an average annual emissions target for every man, woman and child on the planet, of about one third of a tonne. The scale of this challenge is immense, but with increasing scientific evidence that only a zero-carbon world, or something approaching it, will have any chance of thwarting dangerous climate change, even this tiny carbon footprint may actually be too big. Just how much emissions in the industrial countries are going to have to come down can be seen from the fact that even one third of a tonne of carbon dioxide is almost 60 times less than the average American or Australian emits and more than 25 times smaller than the carbon footprint of the average Brit. On the other hand, it is 15 times higher than the carbon produced in a year by a citizen of Chad. Clearly, the big losers under C&C will be the richest countries and most wasteful emitters, while the winners will be poorer nations alongside those that embrace clean technologies and low-carbon lifestyles.

Dismissed by elements of the US government, by some UK civil servants, and by others, as thinly disguised communism, almost every day now brings further high-powered support for C&C. As long ago as 1995, the Indian government signed up to the framework, and two years later it was adopted by the Africa Group of Nations. Most surprising of all, just before walking out of the Kyoto climate negotiations in 1997, the US delegation conceded that C&C contained 'elements for the next agreement that we might ultimately all seek to engage in'; good news, perhaps, for Copenhagen in 2009. Other supporters include China, the European Parliament, the UN Environment Programme, and even the World Council of Churches. Most recently, and perhaps most significantly, the German chancellor, Angela Merkel, also publicly backed C&C. In the UK, successive labour governments have been lukewarm, to say the least, but there is plenty of support elsewhere, including from the Royal Commission on Environmental Pollution and from 180 MPs who supported C&C in an early-day motion in parliament.

Whether or not C&C will form the basis of any post-Kyoto climate agreement remains to be seen, but there is certainly nothing else on the table that can hold a candle to it in terms of simplicity, elegance and downright even-handedness. I am sure that adoption of C&C by the international community would prove to be an almighty relief to Aubrey Meyer, who commented, in a recent *Guardian* interview, that he 'did not realise that it would take quite so long to change the world'.

## AMEN TO CLIMATE CHANGE

Edited by Administrator

Thursday, September 04, 2008

Contraction and Convergence (C&C) is like a perfect cadence in music says Aubrey Meyer\*.

C&C is the name given by the Global Commons Institute (GCI) to the formal response we gave to the United Nations Framework Convention on Climate Change (UNFCCC) in 1995. To prevent dangerous rates of climate change, the objective of the UNFCCC is the stabilization of greenhouse gas (ghg) concentrations in the global atmosphere and the principles are precaution and equity. The UNFCCC Secretariat took the position in 2002 that 'C&C is inevitably required to achieve the Convention's objective.'

C&C makes it possible to demonstrate how we can solve the climate change problem at a rate that is faster than the rate at which we are creating it. Rolling out under the global emissions limit that achieves the objective of the UNFCCC [contraction], the international sharing of the entitlements to these emissions is that, in principle, they shall be counted as equal-per-head to all persons, but achieved by smooth transition [convergence]. Where the Kyoto Protocol picks a few numbers out of a hat, C&C is globally rational, transparent, and rooted 'full-term' in the objective of the UNFCCC. Unlike a lottery and as in music, the parts are referenced and sum of the whole.

Like Occam's Razor C&C is not necessarily the only way to resolve the potentially endless international arguments about who is to blame for climate change. It is the least worst and the most transparent way of defining our responsibilities jointly and severally, fairly and effectively, under the terms of the UNFCCC.

We all now live in the double-jeopardy of climate change. For decades, the globally-asymmetric development of expansion and divergence has been growing at an average three percent per annum. The jeopardy is doubled because the damages to the climate this growth has been causing have been growing at twice that rate, at an average six percent per annum.

Quite simply, we have been causing this problem much faster than we have been responding - say, with the Kyoto Protocol - to avoid it. Worse, two-thirds of the world's population survives on a mere six percent of global-income and now also faces climate damage and death caused by the cumulative ghg pollution of the wealthy one-third. Knowingly or even unwittingly continuing with a half-hearted response to this is not just dissonant. It defaults to being what politicians have called the economics of genocide, where none of us will be able to avoid its awful, downstream consequences.

C&C takes this head-on, saying that securing the objective of the UNFCCC is paramount. It also recognises that globally-endemic poverty and the now dangerous rates of climate change are two sides of the same coin. C&C shows how we can take this two-sided problem and turn it into one solution that guides us to deal with both, while ensuring we do enough soon enough to avoid dangerous, runaway climate change.

As there is great acrimony about this double-jeopardy already feeding the politics, I think it helps us to get beyond this by linking the solution to the timeless and universal rationale of music. We can say that correcting the past and present discord of expansion and divergence with the future concord of contraction and convergence is, quite literally, like an Amen or perfect cadence in music.

In essence musicians have to do two things: one, especially if you are a string player, is to play in-tune; the other, especially if you are playing with others in an orchestra, is to play in-time. Doing this is what the churches once called just or perfect time management. The hertz (or frequency) value of pitch is embedded in the perfection of the given intervals of the overtone series and this is incontestable and irreducible.

For example, an orchestra tunes today to 'A' 440 cycles a second and a precise doubling of that is 'A' 880 cycles, that gives the perfect octave above A 440. These are the tonic values, between which lies the also perfect mid-division value of 660 cycles, which gives the perfect fifth value at the dominant note 'E'. The cadential progression from the dominant to the tonic is, in music, literally the 'perfect unity' of an 'Amen' cadence.

All life is captive to this consonance, whether it is self-aware (cognitively resonant) or not. It is the fundamental reference signal of concord, against which all degrees of deviation into the even more complex intervals of discord are measurable. In religious language it is logos; self-referentially cognitive and perfect. It is indestructible, and therefore, true. It is the source of all proportionality, unavoidable and free.

This numeraire resonates at the heart of C&C. It attracts a globally-divided whole, back through equity in diversity cadentially to the unity we need to experience to survive climate change.

Of course, there are ideological reactions to this, but they simply reinforce what C&C is - a logical proposition. If there is something better, we had better find it soon.

\*Aubrey Meyer is Director of the Global Commons Institute.

For further information visit [www.gci.org.uk/briefings/ICE.pdf](http://www.gci.org.uk/briefings/ICE.pdf)

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