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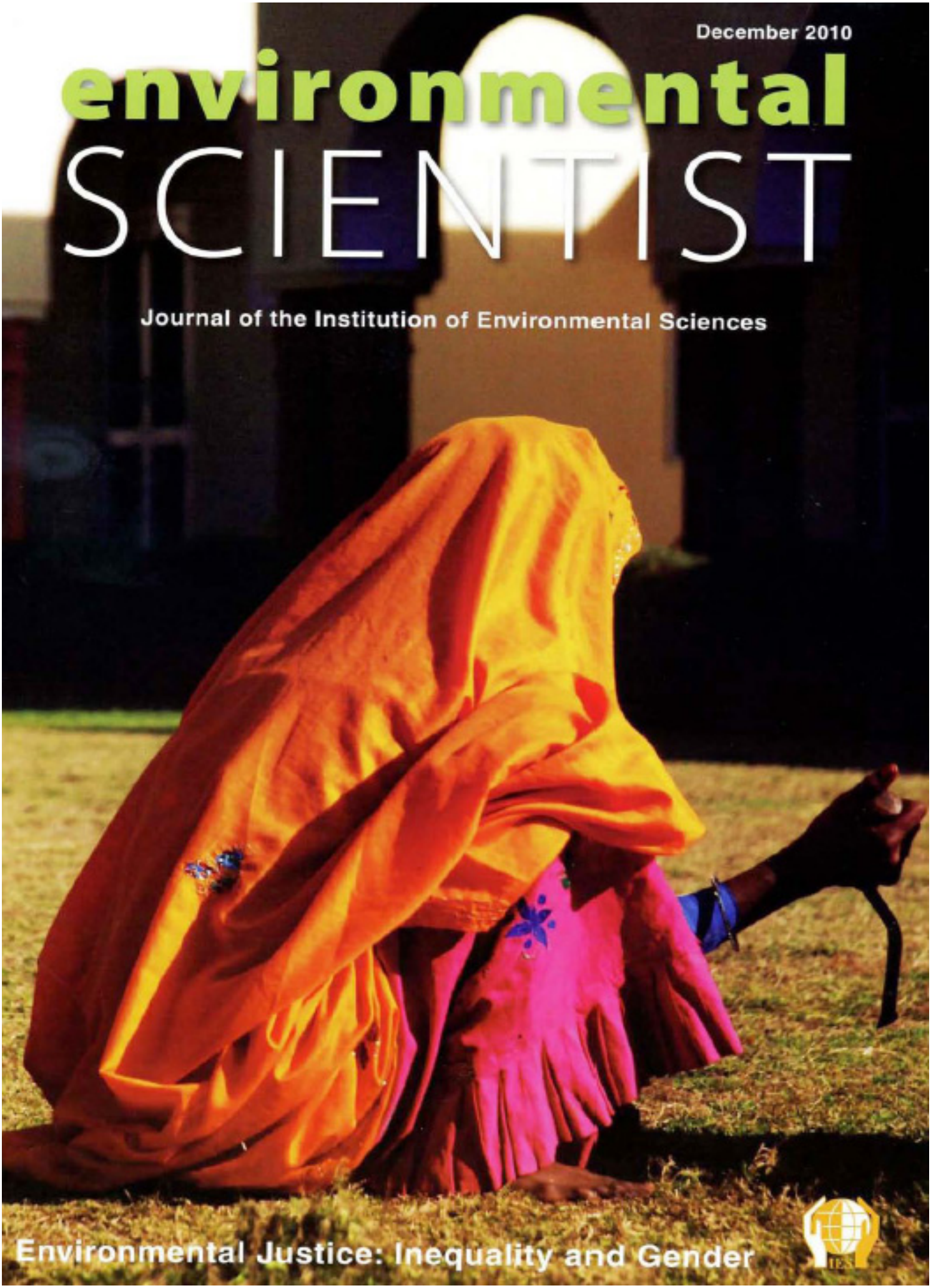

Environmental Justice: Inequality and Gender

OPINION: CLIMATE JUSTICE WITHOUT VENGEANCE

AUBREY MEYER argues that climate justice relies on a global framework of Contraction and Convergence.

Contraction and Convergence (C&C) is a proposed model for reducing greenhouse gas (GHG) emissions and thus mitigate anthropogenic climate change. C&C is a measurement framework for a range of scenarios or 'emissions-futures' that assumes and so measures compliance safe and stable atmospheric GHG concentrations. Thus C&C calculates and projects a range of emissions-contraction-scenarios where we avoid dangerous rates of global climate change.

The development of C&C

The objective of the United Nations Framework Convention on Climate Change (UNFCCC), agreed internationally at the Rio in 1992, is to secure safe and stable GHG concentration in the global atmosphere. Its principles are precaution and equity. In response to this, the Global Commons Institute (GCI) introduced the C&C calculating model to the negotiations at the UNFCCC one year after these formally commenced in 1995 [GCI 2010c).

Measured in tonnes of carbon per unit-time, but counted subject to the overall emissions limit that achieves UNFCCC-compliance, C&C assumes the rationale of globally equal emissions-entitlements per capita, saying that (not the monetary unit) is the unit of measurement of C&C. The reason that C&C assumes equal entitlements, subject to the concentration limit, is simply to avoid what are the insoluble measurement problems that follow from assuming globally unequal entitlements, not-to-mention the insoluble political problems that follow from attempting to defend them.

During preparations for the Second Assessment Report (SAR) of the Intergovernmental Panel on Climate Change (IPCC) between 1993 and 1995, economists were invited to participate. They conducted a 'Global Cost/Benefit Analysis' (GCBA) of climate change, posing the question of whether the benefits of avoiding climate change were greater than the costs of so doing. During this exercise they produced a procedure where the monetary unit was the relevant and indeed the dominant measurement unit. Using this, they quantified and valued all assets at risk of damage due to climate changes as proportional to the income of the owners of these assets. This included the 'statistical lives' that would be lost due to the growing impacts of climate change. When they summed the inventories of the marginal costs and benefits, their results demonstrated first by that on average, 15 poor people equalled one rich person and secondly that it would be cheaper to adapt to climate change than to prevent it.

Anticipating this result, in 1994 GCI submitted a report to the IPCC entitled "the Economics of Genocide", disputing the GCBA suggestions seeking a global consensus for a methodology that demonstrated it was cheaper not to prevent the deaths of people and the other problems arising from dangerously changing rates of global climate on a progressively warming planet. After a memorable political row, GCBA was rejected.

Central to the protection of the economy is the necessity of preventing dangerous rates of climate change. To comply with the UNFCC's objectives, GCI argued that the relevant unit of measurement was global emissions 'entitlements' in a structure of Contraction and Convergence, measured in tonnes of carbon per unit time, not money. To comply with UNFCCC goals, the unit for measuring GHG emissions 'needs to know where it is going'.

Money cannot therefore be the unit of measurement because it cannot do this, beyond being linked to an exponentially and indefinitely rising curve of 'economic growth' with 'expansion and divergence', thus decreasing the potential for UNFCCC-compliance.

The precautionary principle requires that we solve the emissions problem faster than we are creating it. This means getting C&C politically agreed, organised and implemented at rates that 'do-enough-soon-enough' to avoid dangerous rates of climate change. Doing ' too-litle-too-late' simply says we will all succumb sooner or later, just as though we had done nothing at all. Indeed, in the absence of being led by a substantial full-term C&C agreement that prevents climate change, the question arises as to why implement any framework, as just to make attempts on the margins means all we possibly achieve is simply a slightly slower rate of failure.

The role C&C in addressing inequalities

The UNFCCC also recognizes the equity principle which requires us to recognise that the majority of the expanded and accumulated emissions that have triggered anthropogenic climate change so far have originated from developed countries. As these emissions have been increasingly closely correlated with economic growth, an increasing asymmetry of global wealth has developed since fossil fuel burning began with the industrial revolution in the 19th Century. Currently as a general rule, emissions per capita are highest where incomes are highest and lowest where incomes are lowest. C&C seeks to correct this. Indeed, the primary purpose of the C&C model is to articulate, integrate and structure the two interdependent resource considerations that in combination are indispensable for calculating the globalization needed for UNFCCC-compliance:

I. Taking into account the loss of 'sink-efficiency', C&C shows how future global carbon GHG emissions:concentrations trajectories for UNFCCC-compliance can be calculated as emissions-contraction (GCI, 2010c).

2. Recognising the reality of worsening international discord over the past very unequal causation of 'anthropogenic climate change' and the future opportunity cost to the countries that did not cause it, C&C shows how the sharing of the 'contraction-event ' can be negotiated in a rational procedure of constitutionally sharing the entitlements that are subject to that global limit, as entitlement convergence on the global per capita average arising under contraction, at a rate to be decided.

The first is the prerequisite for achieving the objective of the UNFCCC and any sustainable future global economy. At the same time, agreement on the second is necessary for achieving the former, and this needs now to become less rhetorical than has been the case so far if we are to succeed. We must now collectively forgo the distraction of the 'blame-based-politics' and endless 'possibilities' in favour of a transparent and rational procedure.

Since 1995 disputes about money and blame have clouded the negotiations at the UNFCCC. C&C provides a rational global structure for resolving this: as the rate of global emissions contraction must be established for UNFCCC-compliance and possibly accelerated for reasons of urgency, the rate of convergence on the per capita average negotiated must be accelerated relative to contraction for reasons of equity. Since UNFCCC negotiations have required that a global market which trades emissions entitlements must develop, a C&C-based pre-distribution of emissions entitlements can resolve this dispute. Those countries with per capita emissions below the global average have a surplus. Those countries with per capita emissions that are above average have an immediate shortage. The former, lacking purchasing power, are poor. The latter, not lacking purchasing power, are rich. Negotiating the rate of convergence is what Ross Garnaut calls, "the main equity lever" in this aspect of the deal (Garnaut, 2008). The earlier the convergence, the greater the redress for the historical asymmetry and future opportunity cost.

To end conditions of global 'apartheid ' in 'globalization', it is necessary to recognize that sustainable development can no longer be separate development.

C&C addresses this by merging equity and efficiency, dealing with poverty and climate change in the same mechanism. Emulating Mandela's vision for ending 'apartheid' in South Africa, GCI says that C&C predicates survival on 'Climate Justice without Vengeance'.

Conclusion

In 2004, nine years after the negotiations at the UNFCCC began the UNFCCC Executive acknowledged that, "achieving the objective of the UNFCCC inevitably requires 'Contraction and Convergence'". C&C is now the most widely cited model in the literature around climate-policy (GCI, 2010). There are more extreme proposals that claim to make up for an alleged 'lack of sufficient fairness' in the C&C proposal by requiring instant convergence or demanding 'negative emissions-entitlements' for developed countries (GCI, 2010 1). C&C sits between those proposals and those on the other hand which claim that 'justice' has nothing to do with it and even those which still insist that there is not even a problem.

The UK Climate Act is based on moderate rates of C&C and though the world came closer to winning the struggle for the global understanding and acceptance of this principled structure at COP-I5 in Copenhagen in 2009, those governments that introduced it failed to ex plain their reasoning and were prescriptive on the rates of C&C that must be established and so the attempt did not succeed (GCI, 2010b).

C&C is a global negotiating framework that enables both sides to come together and settle their 'differentiated responsibilities' in the same structure.

The struggle to explain and to establish this has however not yet been completed. C&C conforms to the requirements of the UNFCCC and to secure UNFCCC-compliance it must succeed for, as the Archbishop of Canterbury said in 2004, *"anyone who thinks that C&C is 'utopian' simply hasn't looked honestly at the alternatives."*

Aubrey Meyer co-founded the Global Commons Institute (GCI) in 1990 and a programme to counter the threat of climate change based the founding premise of 'Equity and Survival'.

Since then he has devised and run the campaign for "Contraction and Convergence".

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Sources and Sinks: UK Climate Act.

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A detailed animation of this analysis is on- line at: -
http://www.gcLorg.uk/Animations/BENN_C&C_Animation.exe

Key Clauses in the United Nations Framework Convention on Climate Change

Parties to the UNFCCC acknowledge that, *"change in the Earth's climate and its adverse effects are a common concern of humankind."*

They are concerned that, *"human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind."* (Preamble)

The Convention's objective is, *"to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."* (Article 2) In other words, greenhouse emissions have to contract globally.

Its principle of 'Global Equity' says, *"Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity." (Article 3.1) They note that, "the largest share of historical and current global emissions of greenhouse gases has originated in developed countries and that per capita emissions in developing countries are still relatively low."* (Preamble)

They therefore conclude that, *"in accordance with their Common but Differentiated and Respective Capabilities the developed Country Parties must take the lead in combating climate change and the adverse effects thereof" (Article 3.1) while, "the share of global emissions originating in developing countries will grow to meet their social and development needs."* (Article 3.3) In short, the Convention covers Convergence in a system of emissions allocation.

Its 'Precautionary Principle' says, *"Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures'."* (Article 3.3)

On achieving ' global efficiency' it says, *"taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at lowest possible cost."* (Article 3.3) *"In the past, cost-effective measures have been used to target pollutants, notably CFCs, in the form of trading via markets under a global maximum limit or 'cap'."*

A framework based on precaution and equity was therefore established, with efficiency introduced in a subsidiary role purely to assist it.

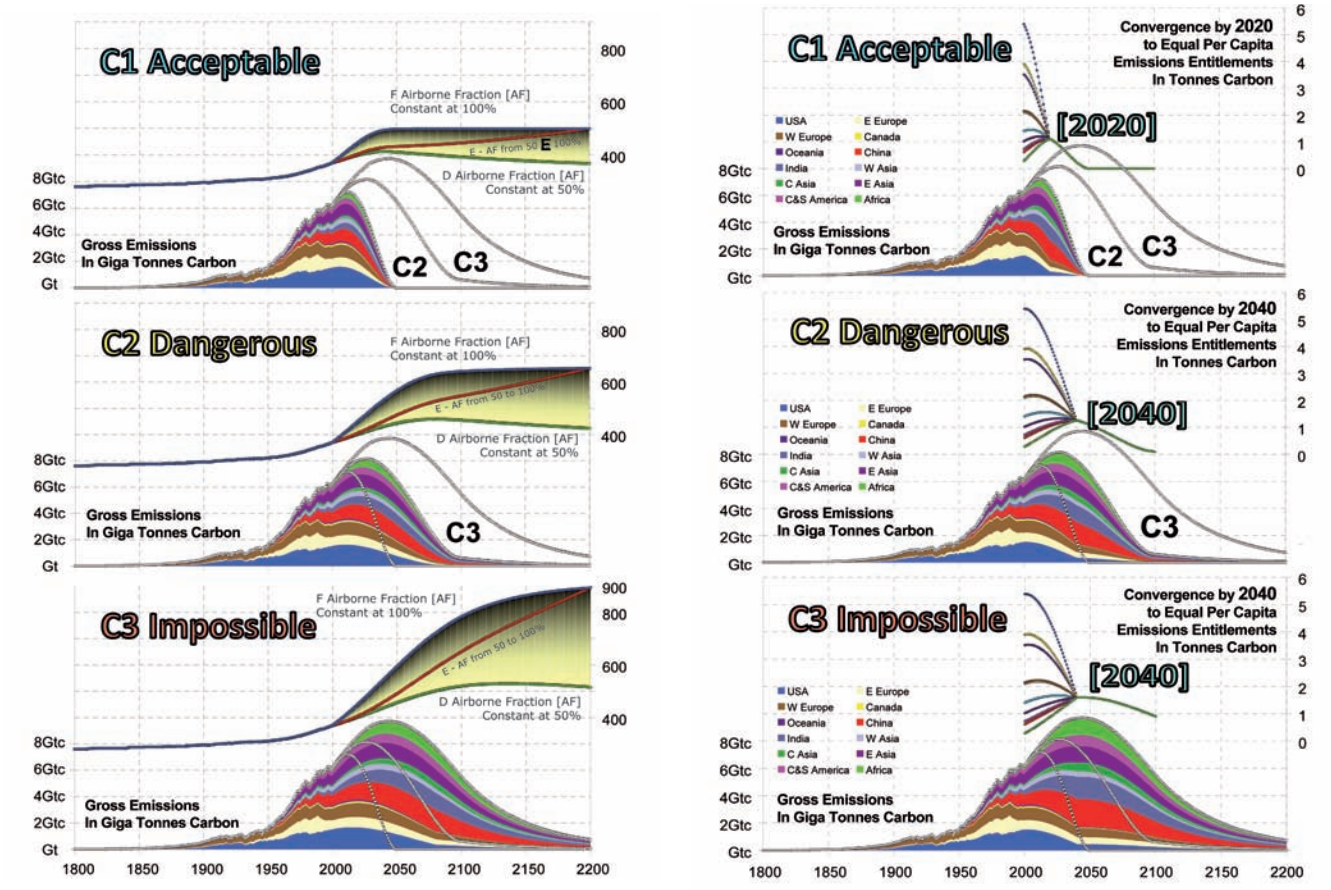

Figure 1: Charting the UNFCCC Objective & Principles

Column 1 analyses what rate of contraction achieves a rate of atmospheric GHG Concentrations that is still UNFCCC-compliant.

Column 2 asks what rate of Convergence on the global per capita can be agreed and integrated with the contraction rate needed for UNFCCC-compliance. The left side of each graph shows expanding C02 emissions measured in billions of tonnes of carbon between 1800-2000 and rising concentration of 'atmospheric C02' in ppmv [parts per million by volume] between 1800-2000.

Each Row has a different level of Risk projected across the four columns as CI-Acceptable. C2-Dangerous and C3-Impossible:

CI bottom row Acceptable risk: global GHG emissions contraction complete by 2050 so concentration end up around 400-450 ppmv with damages potentially still under control.

C2 middle row Dangerous risk: global GHG emissions contraction complete by 2100 so concentrations keep going up through 550-750 ppmv with the illusion of progress maintained, while damages are in fact continuing to rise faster than growth.

C3 top row impossible risk: global GHG emissions contraction complete by 2200 so concentrations keep going up through 550-950 ppm while the illusion of progress is being destroyed, rising damages costs are destroying the benefits of growth very quickly and all efforts at mitigating emissions become futile.