

City of London Awards 2005

From the worlds of business, academia, politics & activ-



Aubrey Meyer

"The City of London recognises an outstanding personal contribution to combating climate change at an international level through his efforts to enhance the understanding and adoption of the principle of

'Contraction and Convergence'."



"Achieving the goal of the climate treaty, inevitably requires contraction and convergence".
United Nations Climate Change Convention Secretariat

"C&C appears utopian only if we refuse to contemplate the alternatives honestly."
Dr Rowan Williams, The Archbishop of Canterbury

"The idea of contraction and convergence is destined to be one of the most important principles governing international relations in the twenty-first century."
Dr Clive Hamilton, Director The Australia Institute

"If ever there was an initiative that deserved recognition and support, it is the brilliant and relentless campaign waged by this fiercely independent, creative and apparently tireless individual."
The Rt Hon Michael Meacher MP



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"The idea of 'Contraction and Convergence' is destined to be one of the most important principles governing international relations in the 21st century. It is a powerful ethic that incorporates global justice and sustainability and thereby bridges the dominant concerns of the last century and this one. It is the only way to accommodate the interests, ethical and economic, of developing countries and rich countries in the struggle to find a solution to the most important environmental problem facing the world."

Dr Clive Hamilton;
One of Australia's leading economists



"... to say - as a growing number of people now do - that the right to emit carbon dioxide should be considered a human right and that emissions permits should therefore be issued to all humankind on an equal basis. 'Contraction and Convergence', a surprisingly flexible plan is based on this idea."

Richard Douthwaite;
One of Ireland's leading economists



"The approach of contraction and convergence presents a new economic development paradigm for the twenty first century and beyond."

Mrs. Rungano Karimanzira
Chair, Africa Group



**Royal Commission On
Environmental Pollution**

"The government should press for a future global climate agreement based on the 'Contraction and Convergence' approach, combined with international trading in emission permits. These offer the best long-term prospect of securing equity, economy and international consensus."

Sir Tom Blundell; Chairman, RCEP



"The commission might have added that contraction and convergence is comprehensive, scientifically based and equitable, unlike the Kyoto Protocol, and that contraction and convergence meets every single objection raised by the United States to Kyoto."

Lord Bishop of Hereford



"... WBGU recommends emission rights be allocated according to the 'Contraction and Convergence' approach."

Dr. John Schelnhuber;
Chairman, German Advisory Council on Global Change



"... a set of common principles will have to be based on agreement to have a worldwide binding limit on global emissions consistent with a maximum atmospheric concentration with progressive convergence towards an equitable distribution of emissions rights on a per capita basis by an agreed date with across-the-board reductions in emissions rights thereafter."

European Parliament Resolution; 1998

Archive of C&C comment and support at: -
http://www.gci.org.uk/Archive/MegaDoc_19.pdf

“A formulation that carries the rights-based approach to its logical conclusion is that of contraction and convergence.”

Intergovernmental Panel on Climate Change, TAR WG3



“A fair distribution, establishing the concept of per capita emission rights for all countries, as proposed in the ‘Contraction and Convergence’ scheme.”

**David Hallman;
Programme Coordinator, World Council of Churches**



“For the long-term, policy makers should reach consensus on a global framework for climate stability based on the principles of precaution and equity such as Contraction and Convergence which would aim to achieve equal per capita emissions for all nations by an agreed date.”

UNEP Finance Initiatives



“Admiration is frequently expressed, regarding the elegance and simple logic of Contraction and Convergence and it has been widely supported by policy makers as a basis that should underlie the next stage of policy formulation.”

Sir John Houghton, Former Chair IPCC Working Group One

THE JOHN RAY INITIATIVE
promoting environmental sustainability

“Many governments around the world have accepted the concept of Contraction and Convergence as the only equitable response mechanism to the threat of climate change.”

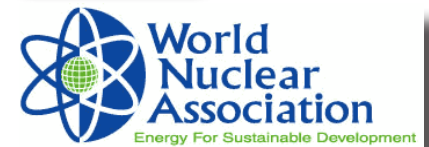
**Grace Akumu
Director, Climate Network Africa**



“I not only support the C&C concept, I find it inconceivable that we will avert climate catastrophe without a regime built on some variation of this approach.

In the debate about climate change, an impression has been created that the problem is too daunting and complex to prevent. Contraction and Convergence provides a way forward that is both fair and feasible.”

**John Rich
World Nuclear Association**



“It is absolutely remarkable that the idea of Contraction and Convergence has taken such a firm hold worldwide in such a short space of time.”

**Tessa Tennant, Chair
Association for Sustainable & Responsible Investment in Asia**



“We regard Contraction and Convergence as no less than the logical starting point for any sustainable future.”

**Ed Mayo
New Economics Foundation**



“The Mayor supports the principle of contraction and convergence as a long-term international policy objective.”

Ken Livingstone, Mayor of London





“The Green party of England and Wales strongly endorses the GCI/GLOBE campaign for Contraction and Convergence as the key ingredient in a global political solution to the problem of Climate Change.”

UK Green Party



“Contraction and Convergence - and its mechanism for financing sustainable development is the only proposal so far which is global, equitable and growth-oriented.”

**Congressman John Porter
Chair, GLOBE USA**



“It’s just possible that there may be a meeting with the Prime Minister, in which case I shall certainly raise the [C&C] issue.”

**Jonathon Porritt
Programme Director, Forum for the Future**

**THE CHARTERED
INSURANCE INSTITUTE**



“The most realistic way to bring about the required reduction in ghg emissions (which will have the combined effect of reducing the damage imposed on the insurance industry and encouraging the transition to renewable energy) is that proposed in the concept of Contraction and Convergence.”

UK Chartered Insurance Institute



“Any political solution to climate change will need to be based on reductions in emissions, otherwise known as contraction. As the climate is owned by no one and needed by everyone, we will also have to move towards equally sharing the atmosphere, known as convergence. Collective survival depends on addressing both.”

**World Disasters Report 2000
International Red Cross/Crescent**

HEINRICH BÖLL FOUNDATION NORTH AMERICA

“The vision of “Contraction and Convergence” combines ecology and equity most elegantly.”

Heinrich Boell Foundation



“Further and more ambitious emissions reductions targets should be agreed for the second and subsequent commitment periods, based on the principle of ‘contraction and convergence’ with the long-term goal of equalising per capita emissions across the world.”

**UK Liberal Democrats
Proposals on Energy Policy**



“I support the concept of ‘Contraction and Convergence’, as does the Environment Agency.”

Sir John Harman; Chairman, UK EA

C&C AT THE CLIMAX OF THE KYOTO [COP3] UN CLIMATE NEGOTIATION, 10 12 1997

THE AFRICA GROUP:



" we do support the amendment that is proposed by the distinguished delegation from India, and just to emphasise the point of the issues that still need a lot of clarification, would like to propose in that paragraph the inclusion, after "entitlements" that is the proposal by the delegation of India, the following wording.

After "entitlements, the global ceiling date and time for Contraction and Convergence of global emissions, because we do think that you cannot talk about trading if there are not entitlements, also there is a question of Contraction and Convergence of global emissions that comes into play when you talk about the issue of equity "

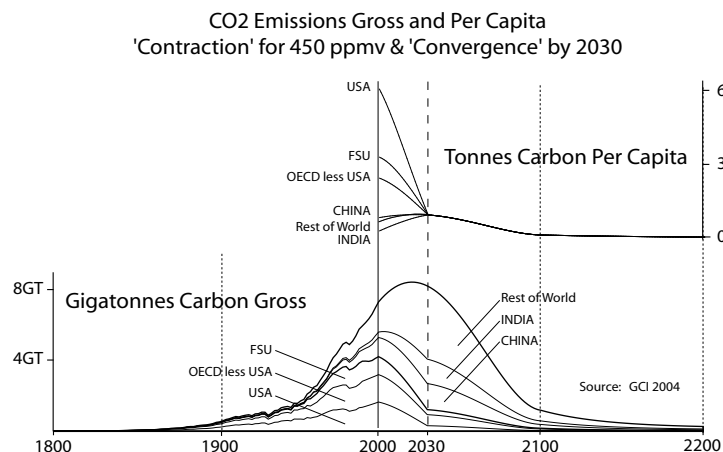
CHAIRMAN:

"I thank you very much. May I ask again the distinguished delegate of the USA if they have another suggestion to propose in connection with the proposals made by the distinguished delegate of India. He does."



UNITED STATES OF AMERICA:

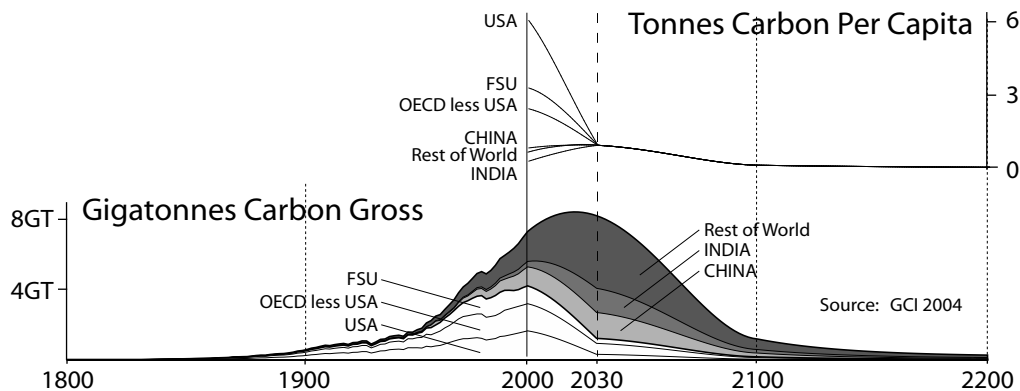
" It does seem to us that the proposals by for example India and perhaps by others who speak to Contraction and Convergence are elements for the future, elements perhaps for a next agreement that we may ultimately all seek to engage in "



For details of extensive international support for C&C, see: -

<http://www.gci.org.uk/consolidation02.html>

GCI BRIEFING: "CONTRACTION & CONVERGENCE"



This example shows rates of C&C negotiated as regions.
This example is for a 450ppmv Contraction Budget, Converging by 2030.

The Global Commons Institute [GCI] was founded in 1990. This was in response to the mainstreaming of global climate change as a political issue. Realising the enormity of the climate crisis, we devised a founding statement on the principle of "Equity and Survival". [1]

In November 1990, the United Nations began to create the Framework on Climate Convention [UNFCCC]. GCI contributed to this and in June 1992 the Convention was agreed at the Earth Summit in Rio. Its objective was defined as stabilizing the rising greenhouse gas [GHG] concentration of the global atmosphere. Its principles of equity and precaution were established in international law. Climate scientists had showed that a deep overall contraction of GHG emissions from human sources is prerequisite to achieving the objective of the UNFCCC. In 1995 negotiations to achieve this contraction began administered by the specially created UNFCCC secretariat.

Between 1992 and 1995 and at the request of the Intergovernmental Panel on Climate Change [IPCC], GCI contributed analysis highlighting the worsening asymmetry, or "Expansion and Divergence" [E&D] of global economic development. It became clear the global majority most damaged by climate changes were already impoverished by the economic structures of those who were also now causing the damaging GHG emissions. [2]

To create a sustainable basis on which to resolve this inequity, GCI also developed the "Contraction and Convergence" (C&C) model of future emissions. In 1995 the model was introduced by the Indian Government [3] and it was subsequently adopted and tabled by the Africa Group of Nations in August 1997. [4]

Negotiations for the Kyoto Protocol to the UNFCCC ran from 1995 until 1997. In December 1997 and shortly before they withdrew from these negotiations, the USA stated, "C&C contains elements for the next agreement that we may ultimately all seek to engage in." [5]

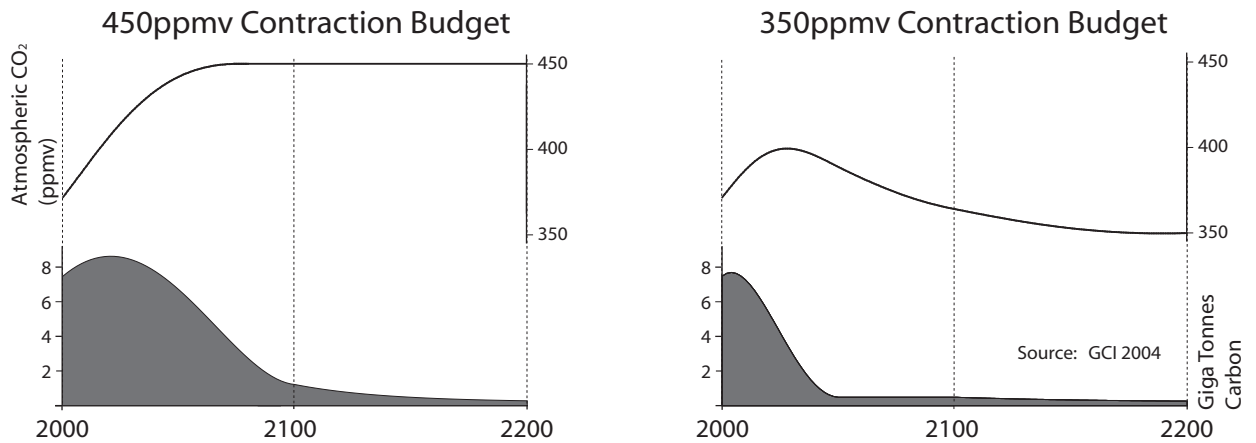
Since then C&C has been widely referenced in the debate about achieving the objective of the UNFCCC. In 2000 C&C was the first recommendation of the UK Royal Commission on Environmental Pollution in its proposals to government. [6] In December 2003 C&C was adopted by the German Government's Advisory Council on Global Change in its recommendations. [7] In 2003 the secretariat of the UNFCCC said the objective of the UNFCCC, "inevitably requires 'Contraction and Convergence'." [8] The Latin America Division of the World Bank in Washington DC said, "C&C leaves a lasting, positive and visionary impression with us." In 2004 the Archbishop of Canterbury took the position that, "C&C thinking appears utopian only if we refuse to contemplate the alternatives honestly." [9] In 2002, the UK Government accepted GCI authorship of the definition statement of C&C, recognising the need, "to protect the integrity of the argument."

This statement follows and is available in thirteen languages. [10] It has been adopted by the House of Commons Environmental Audit Committee and in part in the UN's forthcoming "Millennium Assessment." In 2005, the UK Government will host the next G-8 summit. The Government has already committed this event to dealing strategically with the problems of Africa and Climate Change. Numerous civil society and faith groups are now actively lobbying the Government to have C&C adopted as the constitutional basis for avoiding dangerous future climate change.

- [1] <http://www.gci.org.uk/signon/OrigStatement2.pdf>
- [2] <http://www.gci.org.uk/articles/Nairob3b.pdf>
- [3] http://www.gci.org.uk/Archive/MegaDoc_19.pdf [page 116]
- [4] http://www.gci.org.uk/nairobi/AFRICA_GROUP.pdf
- [5] http://www.gci.org.uk/temp/COP3_Transcript.pdf
- [6] http://www.gci.org.uk/Endorsements/RCEP_Chapter_4.pdf
- [7] http://www.gci.org.uk/Endorsements/WBGU_Summary.pdf
- [8] http://www.gci.org.uk/slideshow/C&C_UNFCCC.pdf
- [9] <http://www.gci.org.uk/speeches/Williams.pdf>
- [10] <http://www.gci.org.uk/translations.html>

“CONTRACTION & CONVERGENCE” - DEFINITION STATEMENT

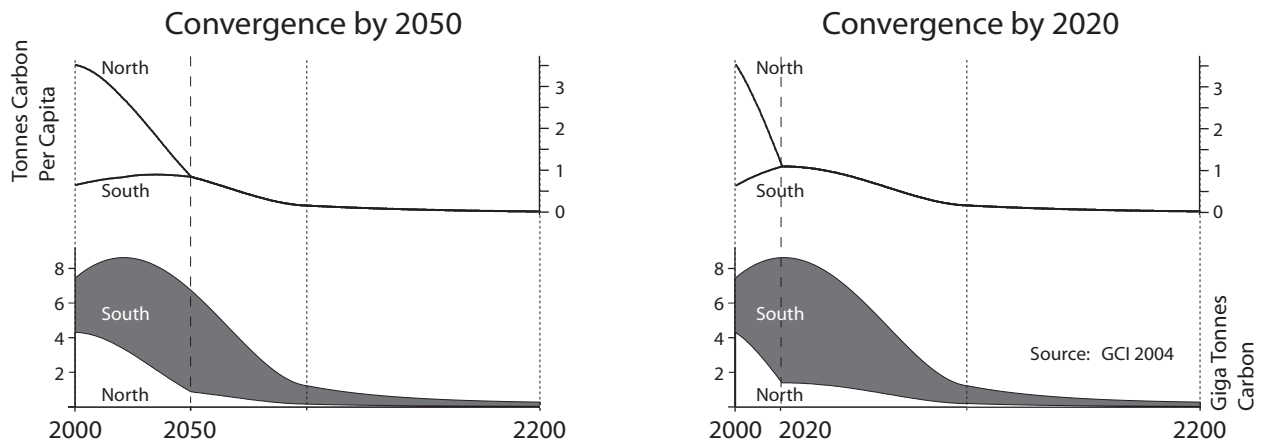
Negotiating Rates of Contraction



Annual Carbon Emissions contract over time to a sustainable level. This is the "Contraction Event".
 The Choice of a "safe" CO₂ stabilisation level determines the total tonnage of carbon to be burnt during the contraction event.
 Two examples of CO₂ stabilisation levels are shown above, with their corresponding contraction budgets.

1. "Contraction and Convergence" (C&C) is the science-based, global climate-policy framework, proposed to the United Nations since 1990 by the Global Commons Institute (GCI). [1,2,3,4]
2. The objective of safe and stable greenhouse gas concentrations in the atmosphere and the principles of precaution and equity, as already agreed in the "United Nations Framework Convention of Climate Change" (UNFCCC), provide the formal calculating basis of the C&C framework that proposes:
 - * A full-term contraction budget for global emissions consistent with stabilising atmospheric concentrations of greenhouse gases (GHGs) at a pre-agreed concentration maximum deemed to be safe, following IPCC WG1 carbon cycle modelling. (See Image Two on page two - GCI sees higher than 450 parts per million by volume [ppmv] CO₂ equivalent as 'not-safe').
 - * The international sharing of this budget as 'entitlements' results from a negotiable rate of linear convergence to equal shares per person globally by an agreed date within the timeline of the full-term contraction/concentration agreement. (GCI suggests [a] between the years 2020 and 2050, or around a third of the way into a 100 year budget, for example, for convergence to complete (see Image Three on page two) and [b] that a population base-year in the C&C schedule is agreed).
 - * Negotiations for this at the UNFCCC should occur principally between regions of the world, leaving negotiations between countries primarily within their respective regions, such as the European Union, the Africa Union, the US, etc. (See Image One on page one).

Negotiating Rates of Convergence



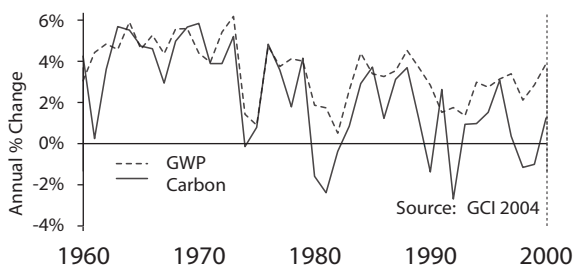
Per capita emissions around the World converge on equality by a negotiated "Convergence Date".
 Two examples of convergence are shown here, each within a 450ppmv contraction budget.

- * The inter-regional, inter-national and intra-national tradability of these entitlements in an appropriate currency such as International Energy Backed Currency Units [EBCUs - 5] should be encouraged.
- * Scientific understanding of the relationship between an emissions-free economy and concentrations develops, so rates of C&C can evolve under periodic revision.

3. Presently, the global community continues to generate dangerous climate change faster than it organises to avoid it. The international diplomatic challenge is to reverse this. The purpose of C&C is to make this possible. It enables scenarios for safe climate to be calculated and shared by negotiation so that policies and measures can be internationally organised at rates that avoid dangerous global climate change.

4. GHG emissions have so far been closely correlated with economic performance (See Image Four Page Three). To date, this growth of economies and emissions has been mostly in the industrialised countries, creating recently a global pattern of increasingly uneconomic expansion and divergence [E&D], environmental imbalance and international insecurity (See Image Four Page Three).

GWP, Carbon Lockstep



Year to year percentage change of Gross World Product, GWP (measured in US\$) and Global Carbon emissions

5. The C&C answer to this is full-term and constitutional, rather than short-term and stochastic. It addresses inertial argument about 'historic responsibilities' for rising concentrations recognising this as a development opportunity cost to newly industrialising countries. C&C enables an international pre-distribution of these tradable and therefore valuable future entitlements to emit GHGs to result from a rate of convergence that is deliberately accelerated relative to the global rate of contraction agreed (see Image Three on page two).

6. The UK's Royal Commission on Environmental Pollution [6] and the German Advisory Council on Global Change [7] both make their recommendations to governments in terms of formal C&C. Many individual and institutional statements supporting C&C are now on record. [8, 9] The Africa Group of Nations formally proposed it to the UNFCCC in 1997. [10] It was agreed in principle at COP-3 Kyoto 1997. [11] C&C conforms to the requirements of the Byrd Hagel Resolution of the US Senate of that year [12] and the

European Parliament passed a resolution in favour of C&C in 1998. [13]

7. This synthesis of C&C can redress the increasingly dangerous trend imbalances of global climate change. Built on global rights, resource conservation and sustainable systems, a stable C&C system is now needed to guide the economy to a safe and equitable future for all. It builds on the gains and promises of the UN Convention and establishes an approach that is compelling enough to galvanise urgent international support and action, with or without the Kyoto Protocol entering into force.

- [1] <http://www.gci.org.uk>
- [2] <http://www.gci.org.uk/model/dl.html>
- [3] [http://www.gci.org.uk/images/CC_Demo\(pc\).exe](http://www.gci.org.uk/images/CC_Demo(pc).exe)
- [4] http://www.gci.org.uk/images/C&C_Bubbles.pdf
- [5] <http://www.feasta.org/events/debtconf/sleepwalking.pdf>
- [6] <http://www.rcep.org.uk/pdf/chp4.pdf>
- [7] http://www.wbgu.de/wbgu_sn2003_engl.pdf
- [8] http://www.gci.org.uk/Archive/1989_2004
- [9] <http://www.gci.org.uk/consolidation/Sasakawa.pdf>
- [10] <http://www.gci.org.uk/papers/zew.pdf> [appendix C, page 16]
- [11] http://www.gci.org.uk/temp/COP3_Transcript.pdf
- [12] <http://www.gci.org.uk/briefings/C&C&ByrdHagel.pdf>
- [13] http://www.gci.org.uk/consolidation/UNFCCC&C_A_Brief_History_to1998.pdf [pp 27 - 32]

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The charts on page four are stacked one above the other on the same horizontal time axis [1800 - 2200]. This helps to compare some of what is known about existing rates of system change with an underlying assumption in favour of a C&C arrangement being put in place.

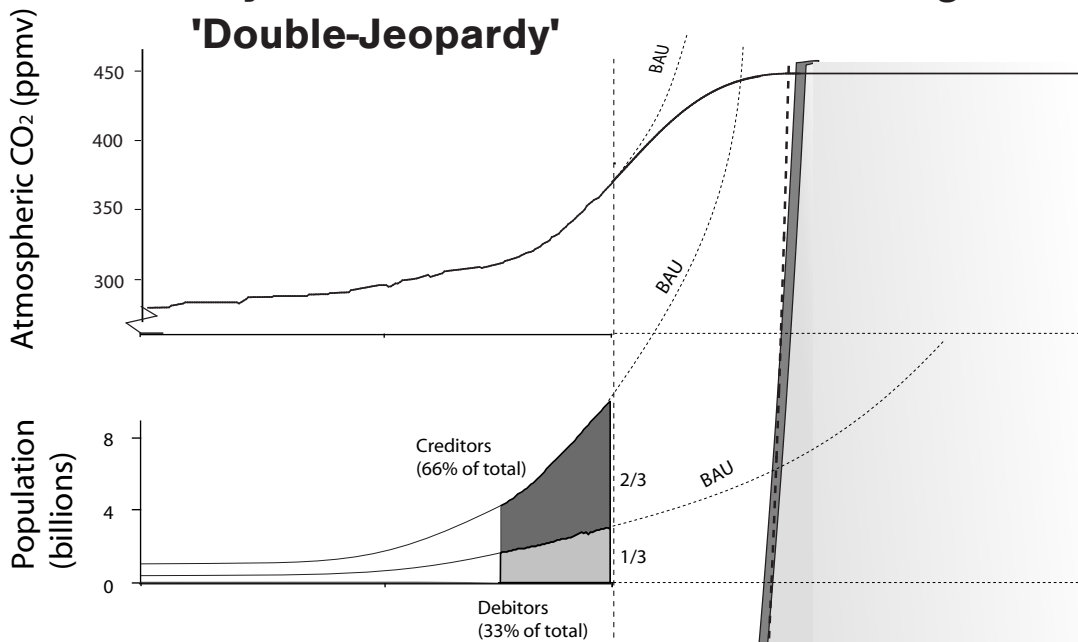
A new feature shown is the rate of economic damages from increasingly 'unnatural disasters' (measured as 'uninsured economic losses' by Munich Re) now rising at 7% per annum, twice the rate of global growth. Another is the devastating and worsening economic asymmetry of "Expansion and Divergence" (E&D). This shows a persistent pattern of increasingly dysfunctional economic growth. One third of population have 94% of global purchasing power and cause 90% of GHG pollution. [We call these 'debtors']. The other two thirds, who live on less than 40% of the average global per capita income, collectively have 6% of global purchasing power and a 10% share of GHG pollution. [We call these 'creditors'].

To escape poverty, it is creditors who embody the greatest impulse for future economic growth and claim on future GHG emissions. But this group also has the greatest vulnerability to damages from climate changes.

Most institutions now acknowledge that atmospheric GHG stabilization, "inevitably requires Contraction and Convergence". However, some of the response to C&C, sees it merely as 'an outcome' of continued economic growth with only tentative acknowledgement of the damages and little comprehension of E&D.

While C&C is not primarily about 're'-distribution, it is about a 'pre'-distribution of future tradable and valuable permits to emit GHGs. Its purpose is to resolve the devastating economic and ecological imbalance of climate change. GCI's recommendation to policy-makers at the United Nations is for the adoption of C&C globally for ecological and economic recovery as soon as possible.

# Asymmetric Growth & Climate Damages 'Double-Jeopardy'



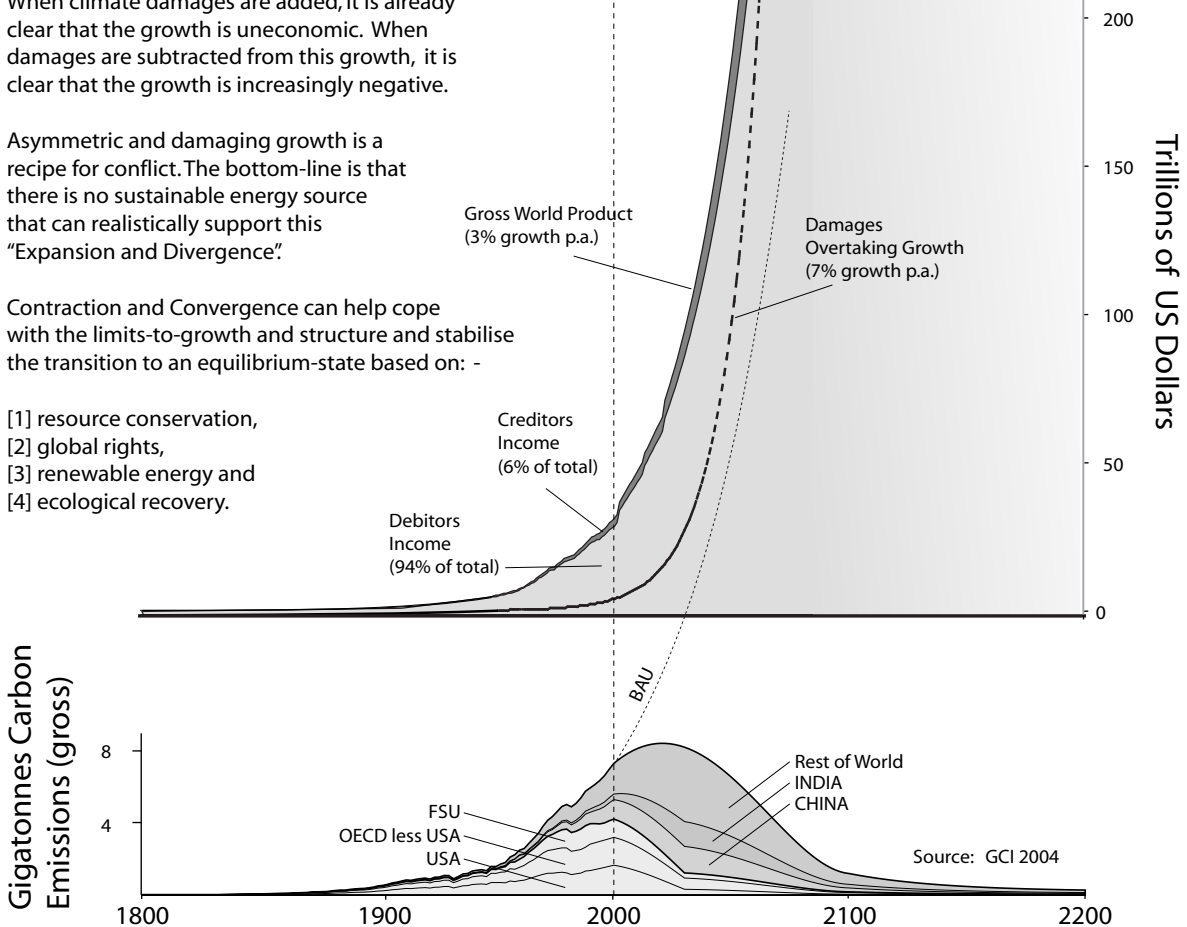
A 3% per annum exponent in the path integral of growth is starkly asymmetric and unsustainable. Adhering to economic prognosis based on this is a measure of an increasingly dangerous economic "growth illusion".

When climate damages are added, it is already clear that the growth is uneconomic. When damages are subtracted from this growth, it is clear that the growth is increasingly negative.

Asymmetric and damaging growth is a recipe for conflict. The bottom-line is that there is no sustainable energy source that can realistically support this "Expansion and Divergence".

Contraction and Convergence can help cope with the limits-to-growth and structure and stabilise the transition to an equilibrium-state based on: -

- [1] resource conservation,
- [2] global rights,
- [3] renewable energy and
- [4] ecological recovery.



# MEMORANDUM

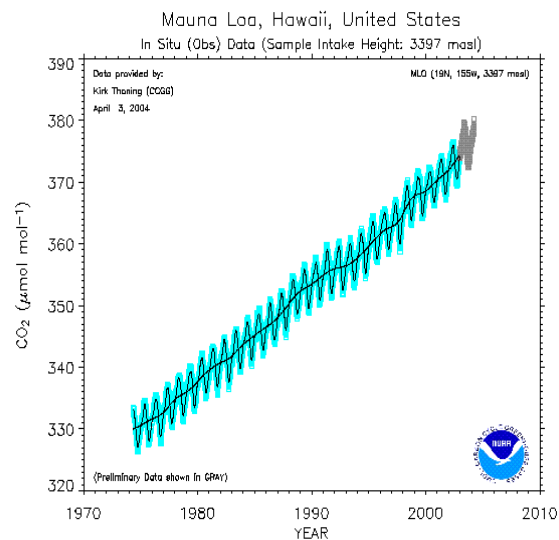
## 1. Introduction

- 1.1. GCI welcomes these hearings by the Environmental Audit Committee [EAC] of the UK House of Commons into, "The International Challenge of Climate Change, UK Leadership in the G-8 and the EU." We also welcome that the EAC recognize the "Contraction and Convergence" [C&C] concept as a frame of reference for investigating how this challenge might be met. For fifteen years we have developed this as 'honest concept-language'. We hope this Inquiry will uphold and clarify this record.

## 2. Context

### UK Leadership on Climate Change in the EU and G-8 Presidencies

- 2.1. The Royal Commission on Environmental Pollution's [RCEP] 22nd Report dated June 2000 concludes the first chapter with these words: -
- 2.2. *"The world is now faced with a radical challenge of a totally new kind, which requires an urgent response. The longer the response is deferred, the more painful the consequences will be."* Later it says, *"the present concentration of carbon dioxide in the atmosphere, about 370 ppmv, is well outside the range recorded in the last half million years . . . There is no precedent in recent geological history to help us understand precisely what consequences will follow."*
- 2.3. In the five years since its report, effective action has not been taken and emissions and concentrations have steadily increased. Carbon dioxide concentration in the atmosphere increased at the rate of 1.5 ppmv in the 1990s. It increased 2.1 ppmv in 2001, 2.5 ppmv in 2002 and an unprecedented 3.01 ppmv in 2003. This touches 380 ppmv or 40% above pre-industrial concentration level. We do not know yet whether this accelerating rise indicates a start to runaway global warming. However, Dr Ralph Keeling of NOAA's atmosphere monitoring station at Mauna Loa has said this year, *"if you want to know what positive feedback looks like, it will look like this."*



## 2.4. KEY MESSAGE TO UK GOVERNMENT: ADOPT C&C

- 2.5. The RCEP looked at 'prospects for an effective global response' and concluded with the single recommendation: -  
*"The Government should press for a future global climate agreement based on the contraction and convergence approach, combined with international trading in emission permits. Together, these offer the best long-term prospect of securing equity, economy and international consensus."*
- 2.6. The UNFCCC Secretariat says achieving the Convention's objective, *"inevitably requires 'contraction and convergence'."*
- 2.7. The UK Government should now adopt the recommendation of the Royal Commission. It should make it clear, prior to its presidency of the EU and G8, that the Government supports Contraction and Convergence; and during its presidency, the UK Government should pursue all means by which C&C will be adopted and implemented internationally.

## 3. Objective

### "Changing the Maths We Live By"

- 3.1. A briefing on '**Contraction & Convergence**' [C&C] is published this December in the journal "**Engineering Sustainability**". It is closely based on the briefing that follows.
- 3.2. The journal is published by the prestigious Institute of Chemical Engineers [ICE] in London. They suggest that C&C, *"could prove to be the ultimate sustainability initiative."*
- 3.3. Seeing the maths of C&C as, *"an antidote to the expanding, diverging and climate-changing nature of global economic development,"* they describe C&C as, *"an ambitious yet widely supported plan to harmonise global greenhouse gas emissions to a safe and sustainable level per person within the next few decades."*
- 3.4. Making an unexpected inter-disciplinary link, ICE also note that in July 2004 C&C, "received divine backing from the Church of England." This was helpful to the mission of the incumbent UK Prime Minister, a religious man who recognizes changing climate's threat to civilization. Mr Blair has correctly said that the cost of preventing climate change is less than the cost of failing to prevent it.
- 3.5. At the time the ICE journal went to press, I was interviewed by the internationally read industry news-service Argus Emissions. Inter alia they asked me, *"what would your advice to President Bush be on climate change issues?"*
- 3.6. Thinking about the inter-disciplinary link, I remembered the story told by the Archbishop of the Church of England, Rowan Williams, about the religious right in the US. It is said they were behind the recent re-election of George Bush.
- 3.7. They noted Rowan's speech in support of C&C "Changing the Myths We Live By" and told him, *"Archbishop, you lack faith in God: if God wants to change the climate, he will change it."*
- 3.8. This challenge to 'Divine Support' exercised me more than the support itself, so I replied to Argus, *"Mr. Bush is a self-declared man of God. He does nothing to hinder climate change, and has been effectively positioned as its agent. So I advise candour in his relationship with God about the prospect of more people dying as a result of unfettered climate change than in the entire history of human conflict."*
- 3.9. It seems that a 'Twilight of the Gods' looms at the G-8 in 2005. The two top chairs – Mr Blair's and Mr. Bush's – appear for the moment to be the seats of Divine Support for clearly opposite views of climate change. Mr. Bush's view is that it is God's will to change the climate; this is the 'let go and let god' position that says whatever the costs, there are greater benefits. The other is the 'God

helps those who help themselves' position. This says it is not against God's will to avoid that cost whatever the effort required, as unless we make this effort, the climate changes we force will force unbearable changes on us and our children.

- 3.10. Such is the tension that UK avoidance is already being mooted. A relevant government website now refers to a preparatory meeting for the G-8 in March 2005 at which, "Discussion . . . will not centre on targets for limiting carbon emissions, but on the business case for the adoption of lower carbon technology in countries with the biggest energy needs."
- 3.11. This memo is intended to help focus the light shed by the Environmental Audit Committee on the dilemma that grips Mr Blair, Mr Bush, their G-8 colleagues and indeed all of us.
- 3.12. Pursuing the impossible dream of infinite growth is expansion and divergence and death by damages. 'Changing the Myths We Live By', means 'Changing the Maths' to renewables and a low carbon economy in a C&C framework, the ultimate sustainability initiative.

## 4. Role of Contraction & Convergence

### 'Honest Concept-Language'; Basic to Changing the Maths we Live by "Protecting the Integrity of the Contraction & Convergence Argument"

- 4.1. In EAC's "Sustainable Development Strategy" report [No 13, November 2004] they identify climate change as, "the greatest challenge the world now faces". Focusing on the issue of global CO2 emissions rising out of control, they note, "potentially catastrophic results" if humanity continues to ignore the environmental limits to economic development activities. EAC also recognizes the concept-discourse of 'Sustainable Development' as the over-arching framework within which human activity should now take place. Noting that the language of 'sustainable development' is, "*ambiguous and complex*" EAC also say, "*there is an urgent need to promote a deeper understanding of sustainable development and to incorporate it within all aspects of policy making.*"
- 4.2. Crucially, EAC further recognizes a deeper and really fundamental problem. As terms are coined and taken into common everyday usage, EAC is correctly concerned about how these initially meaningful terms can become debased when Governments and other parties use them indiscriminately to describe what they were doing anyway. They cite, for example, how the term 'sustainable development' now proliferates in departmental formulations such as 'sustainable transport', 'sustainable communities', and even 'sustainable growth'. EAC suggests that such attempts to lend what it calls 'ethical credibility' to existing programmes are, "*a cause for serious concern*" and potentially even "facetious".
- 4.3. We agree. The opportunistic, euphemistic and even oxymoronic use of concept language, especially when trade-offs between basic survival rights and economic wrongs are linked to rates of environmental change, is counter-productive. In the already fraught international negotiating conditions to avert dangerous rates of climate change, many people are already dying as a result of the associated impacts. Consequently converting concept language into oxymorons and euphemisms to disguise unresolved ideological conflicts over economic and other forms of future growth makes yet more difficult the possibility of coming to the constitutional terms of sustainable development - indeed of security and survival - at all.
- 4.4. The cost of failing to avert dangerous rates of climate change is inestimable. But the prospect of paying this is increasing, as with the growth of population, the economy and the resultant greenhouse gas pollution, we generate trends of climate change faster than we respond to restrain them. In this context, the growing use of the "Contraction and Convergence" [C&C] concept and language is welcome. However, the ambiguity and misuse of this concept-language, raises a cost to the concept.
- 4.5. On the one-hand intelligent peer-reviewed reports from the Intergovernmental Panel on Climate Change [IPCC] observe that, "*C&C takes the rights-based-approach to its logical conclusion*". The

secretariat to the UN Framework Convention on Climate Change [UNFCCC] has underlined the logic saying that, *"stabilization [the objective of the UNFCCC] inevitably requires 'contraction and convergence'."* The Archbishop of Canterbury recently underscored the reflexive nature of the logic of C&C saying that, *"This kind of thinking appears utopian only if we refuse to contemplate the alternatives honestly."* He pressed the Government to give global leadership with C&C at the forthcoming G-8. The Royal Commission on Environmental Pollution has also pressed this C&C leadership point on the UK Government since 2000. These are important messages that reflect the value of the 'honest-language' capital invested in C&C. They reflect the causal intent coherently structured in the principles of the global C&C framework and methodology.

- 4.6. At the same time, debasing the language capital of C&C, we now have advisors to and operatives in the British government simultaneously pressing views of C&C that not only contradict the model, they also contradict each other. In one set of arguments C&C is merely seen as the 'outcome', rather than the cause, of what we will all be doing in further quasi-random Kyoto-style negotiations.
- 4.7. In another, C&C faces the problem of being described by British civil servants as, "a mathematical inevitability if we are to avoid dangerous climate change" whilst also being a "theory" the *"calculations [of which] we just didn't understand."* Disturbing on the diplomatic front is the situation where C&C is now wrongly described by some civil servants as both *"lacking support in Developing Countries" yet also "supported, [in India for example] but for the wrong reasons"* [see Annex Three].
- 4.8. Yet the Government wrote to GCI undertaking to *"protect the integrity of the [C&C] argument"* and source GCI.
- 4.9. The intent with C&C has always been to integrate, simplify and - crucially - 'quantify' key issues relating energy and environmental limits to political structure built on rational principle. This enables inclusive, full-term practice and process to be guided before and during the fact by agreement to stability, as is required by the UNFCCC.
- 4.10. C&C is as much input as outcome; it is 'cause' before it is 'effect'. As such it has significant support around the world which should be nurtured rather than squandered by the debasement of its language or its methods. Clearly the cognitive and diplomatic effort required to guide the climate negotiations must be driven by the goal of the UNFCCC and a coherent framework for 'sustainable development', not contradictions and oxymorons.
- 4.11. This is a core message that we wish to establish in the C&C inquiry with EAC members. C&C concept-capital does not compromise prosperity. It under-writes it by subordinating future economic growth to global environmental security. The G-8 is an opportunity to establish C&C as the basis of the necessary framework.

## 5. Key Strategic Issues and Questions

- 5.1. Is there a consensus on the need to reduce emissions and on the level of carbon in the atmosphere which we must not exceed?
  - a) In a word; 'yes'. If the word 'consensus' is defined by gross majority of people concerned, the answer is noisy but increasingly 'yes'. If 'consensus' is defined by majority of relevant informed 'experts', the answer is a clear signal from the recognition of the need as defined. In other words, there is an overwhelming 'yes'. If 'consensus' is defined by all relevant 'experts' including noisy ones from the minority of the so-called 'contrarian experts', the signal to noise ratio becomes noisier again and this is distorted further when the media promote adversarial debate between experts from both sides one-to-one.
- 5.2. Is that enough to prompt a commensurate response from politicians and business/industry?
  - a) Notwithstanding detail in the first answer, the answer is a clear yes. Moreover, this response has begun. However, it is proceeding much too slowly as taking account of what we do know from the science about rates of changes, we know that time is not on our side.

- 5.3. Will free market approaches (including drivers such as the price of fossil fuels, and technical innovation) adequately address the need to limit carbon emissions?
- a)** No, as prices are an effect before they are a cause. They are rising in response to oil and gas scarcity, but as it is plentiful, coal consumption will rise in response. This will not only drive the aggregate price of fossil down again, it will drive emissions up faster as the carbon intensity of coal is twice that of gas, with oil halfway between the two. When emissions should be falling globally at least 2% a year, they are rising at 2% a year. Global damages from atmospheric accumulation of emissions, albeit from a lower base, are rising at three to four times the rate of the emissions increase. The market is to a large extent the amplifier of this, so markets cannot lead us out of this crisis. However unfashionable it may be, to remain constructively relevant, markets must be understood as "framework-based markets" directed by government to work within to the reality of environmental limits.
- 5.4. What role should governments play?
- a)** As a path integral, growth is becoming un-economic as it is increasingly asymmetric and damaging. Governments should now stop being driven by this blind, formless and over-riding goal of growth. [See Annex One]. Sustainable development is much more about personal and community development, than it is about remote economic development and increasingly disembodied financial growth. *"Money doesn't create value, life does."* A failure to restrain uneconomic growth simply destroys development.
- b)** For 'governance' to work at any level, from local to global, it needs to be primarily grounded in constitutional frameworks that recognize environmental limits in the commons, with resource conservation and personally equal rights in resource consumption patterns that impact on the commons. This is increasingly about the impact of energy consumption on the global commons. [See details under Expansion and Divergence, See Annex One].
- c)** Facing the scale of losses implied by climate change, it is time to stock-take and recognize over-consumption and 'over-shoot' and their potentially fatal implications. WWF's *"Living Planet Index"* is an excellent example of this. [See reference] Either we make changes or the climate changes we force will force unbearable changes on us.
- d)** So we need to reframe at a more fundamental level and change the epistemology of development and politics. With over-shoot, the evolution of capital and labour has reached the 'constitutional crunch-moment'. Governments must speak to this. The imperative now is to adjust the dialectical politics, the blue and the red positions, to the over-riding green imperative, the constitutional politics of pre-distribution under limits. The historical process where private shares [blue equity] are traded in the market, mitigated by redistributive social justice [red equity], has increasingly blinded capital development and industrial relations about the need to preserve the collateral of the geo/biological resource base upon which we jointly and severally depend for survival [green equity].
- e)** This survival/equity synthesis is the 'white-light' of a new understanding. With this, we may yet respond to the key feedback of climate change itself and avoid accelerating resource-depletion and market-failure into the security nightmare of social conflict and ecosystem collapse.
- f)** As with the pre-distributive sequence of cap-and-trade, markets and prices, by definition, are more effect than cause. They cannot and will not lead change. They can follow the signals from strong political leadership. In a phrase; Governments cap and markets trade.
- g)** To signal this cognitive change, Government must in the light of it: -
- i)** Openly accept that climate change is a deepening crisis that requires private economic aspiration and public development policy now to be governed by an absolute and collective commitment to achieve the objective of the United Nations Framework Convention on Climate Change (UNFCCC) as soon as possible. This, by design, is stabilization of the rising concentration of greenhouse gas in the atmosphere at a level low enough to prevent dangerous interference with and potentially runaway disequilibrium in the climate system.
- ii)** Because of the above, educate and internationally lead and canvass for the agreement necessary for the establishment and implementation of global Contraction and Convergence C&C procedures [see elsewhere for details of C&C].
- iii)** Nationally lead, educate and legislate for conservation behaviour, introducing energy demand-management in the form of the Personal Equal Carbon Quota Scheme personally traded in the private sector, as led in the recent Private Members Bill. Also, within this model, invoke the precedent of rationing and war-bonds. Centrally rebalance public/private investment in non-fossil



fuel technology development, deployment with increasing the reliance on decentralised conservation, solar systems, co/generation and distribution networks and the reuse and renewal possible with biological energy and transport systems.

- 5.5. To what extent are international agreements and mechanisms needed to limit carbon emissions?  
**a)** The need for international - indeed global - agreement on the need to limit and reduce carbon emissions is absolute. This doesn't mean that sub-global efforts should wait until global agreement is reached. However, it does mean constantly reaffirming the need for, and working for, an international, intergovernmental agreement and a model of what it is.
- 5.6. If international agreements are needed, what shape and form should they take?  
**a)** In respect of carbon emissions, the overall agreement needed is "Contraction and Convergence" (C&C) [See Annex One definition statement for details].
- 5.7. How would they relate to the Kyoto protocol the EU Emissions Trading Scheme?  
**a)** The parent of the existing agreements cited here is the United Nations Framework Convention on Climate Change (UNFCCC) signed in Rio in 1992 and subsequently ratified into force. The secretariat of these UNFCCC negotiations has now and for more than a year, taken the position that achieving the objective of the Convention "inevitably requires 'contraction and convergence'. So the question is better answered by recognizing that the cited schemes need to explain their relevance to C&C and the UNFCCC.  
**b)** It is worth quoting the RCEP 22nd Report item 4.47 for the recommendation: "*Continued, vigorous debate is needed, within and between nations, on the best basis for an agreement to follow the Kyoto Protocol. Our view is that an effective, enduring and equitable climate protocol will eventually require emission quotas to be allocated to nations on a simple and equitable per capita basis. There will have to be a comprehensive system of monitoring emissions to ensure the quotas are complied with.*"
- 5.8. In particular, to what extent would an international emissions trading system offer the most effective opportunity for reducing global emissions? Could other (bespoke) approaches offer better and more targeted solutions?  
**a)** Trading on the basis of equal emission rights provides the incentive for all countries to reduce emissions. Industrial countries will wish to reduce emissions in order to need fewer emission coupons. Poor countries will wish to keep their emissions low so that they have more coupons to sell. Incentive is more effective than any other measure.  
**b)** But trading carbon entitlements per se will not be effective in reducing carbon emissions globally. Without non fossil-fuel energy alternatives in play, this market would be a reluctant and futile negative-sum game and not gain private sector traction.  
**c)** And even with the gradual uptake of non-fossil-fuel alternatives, present emissions-trading arrangements are 'cost-effective' in a very doubtful sense. 'Under-achievement' on fossil fuel mitigation is frequently re-presented as 'over-commitment' and so caps are relaxed. However, to minimize damage costs, the imperative of global decarbonisation is very pressing. So 'over-achievement' [which reveals a tradable surplus] should if anything be reframed as 'under-commitment' and 'over-entitlement'. C&C is intended to legitimate the entitlement of under-consuming third parties. Ironically, while these are often too remote to register their claim, they are also periodically wrongly accused of not supporting C&C.  
**d)** As things are still without global structure, carbon-trading is often described as 'picking low hanging fruit'. In system terms, it is more chaotic than stochastic. In process terms, it is more like 'carpet-bagging' and 'carbitrage' than meaningfully 'cost-effective' as it depends on a range of faulty premises to demonstrate 'positive-achievement'.  
**i)** We need but don't yet have and accountable, globally inclusive 'framework-based market' such as C&C within which to measure effective rates of change indexed to achieving the objective of the UNFCCC. The absence of this makes all parties even more vulnerable through third party exclusion.  
**ii)** It is error to make fossil carbon [hydro-carbon] stocks and biological carbon [carbohydrate] flows commensurate. It compounds error when the social costs and benefits of using these across societies, whose dependence on and vulnerability to stocks and flows of these two forms of carbon, varies greatly. For example, tokenistic products claiming 'carbon-neutrality' have appeared in the market where it is claimed that fossil carbon burning is 'biologically off-set' by tree-growing.  
**iii)** These mitigation 'benefits' between high-emitting first and second parties are not indexed to the mortality, damage and adaptation costs that the 'under-achievement' imposes on vulnerable

and frequently low-emitting third parties. Sadly, these third party costs are already rising and are an unethical negative cost, or subsidy, to the trades of reluctant and tokenistic first and second party under-achievers.

**iv)** Taken together, under-commitments, errors of commensuration, trading these blind to third-party damage costs are suggested as part of a viable 'a market-based framework'. In reality, this institutionalises error and constitutes avoidance. It further dissipates the political will to break our fossil fuel dependence and – with suicidal undertones - commits us to increasingly fraught and possibly hopeless adaptation challenges.

- 5.9. Could an international emissions system come about in a voluntary (unstructured) manner?  
**a)** Not a traded one. This requires 'self-capping' and would result in the persistent failure of under-commitment as the desire to profit from trade would result in a market of 'under-committed' sellers with no buyers.
- 5.10. Or would it require a more structured and regulated approach (as reflected in the EU ETS)?  
**a)** The real question here is how we compare the difference between no structure and some structure in a regional scheme, with the difference between some regional structure and the internationally inclusive structure necessary to solve the global problem. The answer is that some structure is better than no structure, but some structure is not enough and only some-structure is futile.  
**b)** A full-term global structure is pre-requisite to survival.
- 5.11. What downsides are there to emissions trading? In particular, will countries/companies simply walk away when the going gets tough?  
**a)** Trading like taxes, as we presently understand them, are at-the-margins with reflexively marginal expectations of change. The new situation shows that the changes that are coming at us are anything but marginal and that there's nowhere for companies and countries to walk away to. It used to be that, 'while some do sink, most boats do rise on the tide'. Now that 'we're all in the same boat', fighting for resources will sink it for all. Faced with this prisoner's dilemma, auctioning resources can help, but subject to the requirement for a coherent and constitutional rationing system like C&C. Emissions cap-and-trade should be understood in this light and the realization that, *"you can't trade what you don't own."*  
**b)** GCI believes that companies prefer long-term stability and would welcome the opportunity to demonstrate collective social responsibility by taking up the global standard of *"C&C compliance"* and defending this global basis of capping and trading to the UNFCCC.
- 5.12. How certain can we be that these will deliver the absolute reductions in emissions required?  
**a)** We can be sure the absolute reductions are required, we can be sure that trading and taxes alone will not deliver. That said, *"C&C Compliance"* and what we should think of as the C&C Roadmap-and-Trade, however visionary, is still less improbable than eco-taxes the make-it-up-as-you-go-along cap-and-trade-casino that Kyoto presently hunches on the back of the often forgotten UNFCCC.
- 5.13. To what extent should any such scheme (an international ETS or some other form of post-Kyoto agreement) be seen as a way of channelling low-carbon technology investment from developed countries into least developed and developing countries (e.g. through mechanisms such as the Clean Development Mechanism)?  
**a)** To pay the considerable opportunity-cost that raised greenhouse gas concentration in the atmosphere represents to Developing Countries [sometimes referred to as 'historic responsibilities' or 'ecological debt'] this needs to be - and is - a core structural feature of the C&C proposal. It embeds the coherent negotiating property of being able to accelerate the rate of convergence to equality of tradable permits relative to the rate of contraction [see reference]. This, in other words, potentially increases climate-purchasing power in Developing Countries. This will enable them to initiate non-hydro-carbon development. It will also stimulate the markets for this.  
**b)** The notion circulated still at the 'Developed' end of the global argument, that this understanding of C&C is not supported in Developing Countries is not supported by the evidence. The contrary is true and the evidence is considerable. [see annex 3 & 4].
- 5.14. Would least developed and developing countries be able to adequately exploit an international scheme (ETS or whatever), or would a lack of skills and resources prevent them from doing so? (Capacity building issue)

**a)** There is of course a so-called 'capacity-building' issue here. But Developing Countries have not been spared structural adjustment at the hands of the IMF. They have had to develop the capacity to face the almost impossible demand to make their export-led growth also keep their public services going in the face of private commodity prices adversely determined in Chicago, with international currency speculation at the expense of the soft currencies, not to mention external debt service alongside a US trade-deficit that is now accumulated at over four trillion dollars, under-written as the US say by their Pacific fleet.

**b)** So it is wholly disingenuous of parties here in the UK to suggest that Emissions Trading is 'too difficult' for Developing Countries to deal with precisely at the moment that the C&C Road-map structurally recognizes that because of the 'ecological debt' they have rights to the majority share of a key global resource in what is obviously a seller's bull-market.

**c)** These are some of the issues tied up with why DEFRA, [rather than DFID], disingenuously argues that Developing Countries either don't support C&C, or when they do it is 'for the wrong reasons'.

**d)** The thing that is apparently, still after fifteen years, 'too difficult' for 'experts' advising and bureaucrats organising the over-consuming Developed Countries, is to accept that 'equity is the price of survival'. C&C is supported by many Developing Countries precisely because the C&C formulation of environmental limits and equal rights enables us all to come to the constitutional terms of global governance necessary for survival. For advisors here to tactically ignore this while revising the risks downwards and developing country incapacity and disinterest upwards, is dishonest folly and should be debated openly.

5.15. What priorities on Climate Change should the UK pursue prior to and during its presidencies of the EU and G8 in 2005? To what extent should the primary focus be on a post-Kyoto framework? Are there any other short or medium-term issues which should be part of the UK agenda? If so, what?

**a)** Speak the truth and take the consequences. If our leaders aren't sure what to do, they should say so.

**b)** The apex need is for leadership and no bluffing. In principle this is 'leadership by idea'. This means articulating a coherent full-term global strategy to avoid dangerous rates of climate change. This means C&C as means and ends – C&C as both cause and effect, as both stock and flow - must be clearly laid out emphasizing the structural feature that convergence can and should be accelerated relative to contraction, rather than contraction delayed relative to the rate of convergence. This means energy reform and energy-backed currency-reform.

**c)** African countries will propose this to the G-8 through the Africa Commission at DFID. Following this lead, however difficult, the UK government should amplify it at the G-8 stabilising the short and medium term process by addressing the full-term imperative.

**d)** However difficult, this is preferable to remaining collectively trapped in the confusion of the uneconomic growth rates of change in which we continue to generate the climate problem faster than we organize the global C&C solution. Nothing more, or less, than full-term C&C agreement enables all of us and our descendents to become first parties to a comprehensive and constitutional agreement to survive. We should be truthful about this.

# Sustainable Development, C&C and the UN Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change

## **1.1 1990: IPCC FIRST Assessment Report [FAR]**

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In 1990 the first Assessment Report of the IPCC was published. It established the need for the "Contraction" of Greenhouse Gas emissions [GHGs]. This was the recognition that cuts in the emissions of GHGs in the order of 60-80% would be needed to halt the rise of their concentrations in the atmosphere. This was the basis of the UNFCCC.

## **1.2 1992: UN FRAMEWORK CONVENTION on CLIMATE CHANGE [UNFCCC]**

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**The necessity for the Convention.** 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.** The Convention 'is to achieve.. stabilization 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.

**The Principle of Global Equity.** The 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 responsibilities 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 and a system of emissions allocation.

**The Precautionary Principle.** The Parties, 'should take precautionary measures to anticipate, prevent or minimize 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) . .

**Achieving global efficiency.** 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) This clause points to the global trading of emissions rights. More generally, the point to note here is that the idea of a framework based on precaution and equity had been established, with efficiency introduced in a subsidiary role purely to assist it.

## **1.3 1995: IPCC SECOND Assessment Report [SAR]**

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*"Monetary valuation should not obscure the human consequences of anthropogenic climate change damages, because the value of life has meaning beyond monetary value. It should be noted that the Rio Declaration and Agenda 21 call for human beings to remain at the centre of sustainable development."*

<http://www.gci.org.uk/papers/zew.pdf> Annex B pages 16-18

#### 1.4 1995: UNFCCC First Conference of the Parties COP-1

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" . . . [India] equity should guide the route to global ecological recovery. Policy Instruments such as "Tradable Emissions Quotas", "Carbon Taxes" and "Joint Implementation" may well serve to make matters worse unless they are properly referenced to targets and time-tables for equitable emissions reductions overall. This means devising and implementing a programme for convergence at equitable and sustainable per values for consumption on a per capita basis globally."

<http://www.gci.org.uk/papers/Nairobi3b.pdf> Page 5

#### 1.5 1997: UNFCCC Third Conference of the Parties COP-3

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" . . . [The Africa Group] support the amendment that is proposed by the distinguished delegation from India, and just to emphasise the point of the issues that still need a lot of clarification, would like to propose in that paragraph the inclusion, after "entitlements" that is the proposal by the delegation of India, the following wording. After "entitlements, the global ceiling date and time for Contraction and Convergence of global emissions. Because we do think that you cannot talk about trading if there are not entitlements. Also there is a question of Contraction and Convergence of global emissions that comes into play when you talk about the issue of equity . . . . "

" [The USA] . . . . It does seem to us that the proposals by for example India and perhaps by others who speak to Contraction and Convergence are elements for the future, elements perhaps for a next agreement that we may ultimately all seek to engage in . . . ." [http://www.gci.org.uk/temp/COP3\\_Transcript.pdf](http://www.gci.org.uk/temp/COP3_Transcript.pdf)

#### 1.6 2000: IPCC THIRD Assessment Report [TAR]

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"A formulation that carries the rights-based approach to its logical conclusion is that of contraction and convergence." [http://www.grida.no/climate/ipcc\\_tar/wg3/index.htm](http://www.grida.no/climate/ipcc_tar/wg3/index.htm) 1.3.2

## The IPCC Fourth Assessment Report [AR4]

Published for the IPCC by Munasinghe Institute for Development (MIND) Colombo, Sri Lanka March 2003

### **CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT – VIEW FROM THE DEVELOPING WORLD**

Kirit Parikh Chairman,

Integrated Research & Action for Development New Delhi

"The Rich are delaying action, but delay is free riding. The difference between the likely emissions of OECD countries, even if Kyoto Protocol is fully implemented, and what would have been under the FCCC understanding will exceed India's emissions of CO<sub>2</sub> over the next 40 years."

"Adaptation should not be an excuse for avoiding mitigation. "You adapt, I would not mitigate" is not acceptable."

**"Convergence and contraction in an equitable way should mean developing countries should have the right to converge to the level of per capita emissions of developed countries (DCs) world any time and then to contract together, not that LDCs converge and DCs contract to a sustainable level."**

"An equitable solution is obvious: Tradable emission quotas over a long time horizon in terms of tonne-years of carbon in the atmosphere which are equitably distributed, within specified range that narrows as knowledge firms up, can endogenise many of the problems."

Here, an Indian expert to IPCC at an event to which the Indian Prime Minister contributed, sets a key-note message for an IPCC plenary in preparation for the 4th Assessment. It clearly emulates GCI's 'convergence accelerated relative to the contraction rate' in order to take C&C - as he puts it - from being 'unfair' to being 'equitable'.

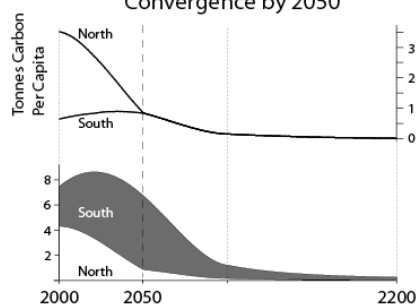
This is perhaps why UK officials at DEFRA say that India [and other countries] supports C&C 'for the wrong reasons'.

### Convergence and Contraction

- Unfair

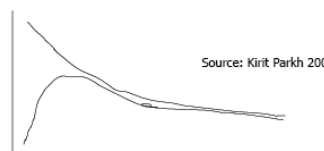


Convergence by 2050



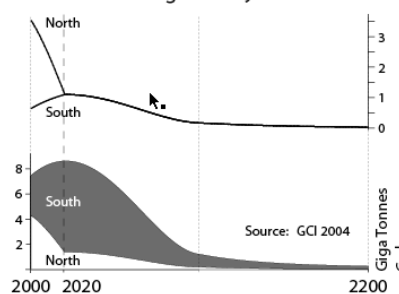
### Convergence and Contraction

- Equitable



Source: Kirit Parkh 2003

Convergence by 2020



Source: GCI 2004

## INDIA-UK Joint Declaration - London; September 20, 2004

Prime Ministers Manmohan Singh and Tony Blair in London; their statement just avoids the issue.

### Sustainable Development

*"Both our countries recognize that co-operation is essential to deliver the progressive global agenda set by the Johannesburg World Summit on Sustainable Development and the Millennium Declaration. We will initiate regular high-level dialogue to share experiences on how we can overcome social, economic and environmental challenges, and bring real quality of life improvements for people in both our countries and around the world.*

*Climate change and broader issues of sustainable energy security are high on our respective agendas.*

*Climate change will be a central theme of the UK's Presidencies of the G-8 and EU next year.*

*We will promote effective co-operation in our responses to climate change, including by building on the successful joint work that has already been carried out by the UK and India on climate change impacts and modelling.*

*To this end, we will establish a structured dialogue to exchange views and information and take forward any bilateral co-operation projects."*

# References

## 1 Governments

- 1.7 **Indian Environment Minister, Kamal Nath, COP 1, April 1995**  
<http://www.gci.org.uk/papers/zew.pdf> page 17
- 

"..equity should guide the route to global ecological recovery. Policy Instruments such as "Tradable Emissions Quotas", "Carbon Taxes" and "Joint Implementation" may well serve to make matters worse unless they are properly referenced to targets and time-tables for equitable emissions reductions overall. This means devising and implementing a programme for convergence at equitable and sustainable par values for consumption on a per capita basis globally."

- 1.8 **Chinese State Councillor Climate Change & Population, Dr Song Jian, Oct 1997**  
<http://www.gci.org.uk/cop3/songjian.html>
- 

"When we ask the opinions of people from all circles, many people, in particular the scientists think that the emissions control standard should be formulated on a per capita basis. According to the UN Charter, everybody is born equal, and has inalienable rights to enjoy modern technological civilization."

- 1.9 **The Africa Group, August 1997**  
<http://www.gci.org.uk/refs/C&CUNEP11b.pdf>
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"As we negotiate the reduction of GHG, the countries of Africa believe that there should be certain principles that need to be clearly defined.

1. There must be limits on all GHGs if the danger to our climate is to be averted. The IPCC scientific assessment report provides us with the basis for global consensus on such limits.

2. A globally agreed ceiling of GHG emissions can only be achieved by adopting the principle of per capita emissions rights that fully take into account the reality of population growth and the principle of differentiation.

3. Achievement of a safe limit to global GHG emissions can be achieved by reducing the emissions of Annex One while at the same time ensuring that there is controlled growth of future emissions from Non-Annex One countries, reflecting our legitimate right to sustainable economic growth. We strongly believe that this will take us along a path to responsible climate management that allows us to reach our goal of defining a mutually agreed point of convergence and sustainable development. Such a convergence Mr. Chairman must ensure that we maintain a global ceiling on emissions to prevent dangerous interference with the climate system.

4. When we look at time frames, we believe that insufficient commitment by Annex One countries will only result in delaying our influence on the climate system. If this course is maintained, then we will all suffer and the burden will be even greater for humanity in general. The burden for any future mitigation efforts on those of who have not been historically and currently responsible for creating the problem will be greater.

Mr. Chairman, we must focus our attention on the most appropriate, reasonable and acceptable time frame for action. There is an over-riding prerequisite. The time frame cannot be too far away into the future if we are to avoid at all costs the dangers that global climate change poses. The current scientific evidence indicates that Africa faces decline in water resources, agricultural production and economic performance. It is for this reason that we wish to register the seriousness with which we view the effective implementation of the Convention and future agreements emanating from it."

1.10 **The Africa Group**, COP-3 Kyoto, 3a.m. 10<sup>th</sup> December 1997  
[http://www.gci.org.uk/temp/COP3\\_Transcript.pdf](http://www.gci.org.uk/temp/COP3_Transcript.pdf) page 16

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“ . . . we do support the amendment that is proposed by the distinguished delegation from India, and just to emphasise the point of the issues that still need a lot of clarification, would like to propose in that paragraph the inclusion, after “entitlements” that is the proposal by the delegation of India, the following wording. After “entitlements, the global ceiling date and time for Contraction and Convergence of global emissions. Because we do think that you cannot talk about trading if there are not entitlements. Also there is a question of Contraction and Convergence of global emissions that comes into play when you talk about the issue of equity . . . . ”

1.11 **Non-Aligned Movement**, Heads of Government Conference, (NAM), September 1998  
[http://www.gci.org.uk/consolidation/Letters\\_Articles\\_1989\\_2002.pdf](http://www.gci.org.uk/consolidation/Letters_Articles_1989_2002.pdf) Page 202

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“In August and September the NAM held a heads of Government conference in South Africa. Combining the logic of "Contraction and Convergence" with the trade Article 17 of the Kyoto Protocol (KP), the NAM agreed the following statement: -

"Emission trading for implementation of (ghg reduction/limitation) commitments can only commence after issues relating to the principles, modalities, etc of such trading, including the initial allocations of emissions entitlements on an equitable basis to all countries has been agreed upon by the Parties to the Framework Convention on Climate Change."

1.12 **Indian Prime Minister**, Shri Atal Bihari Vajpayee, October, COP-8, 2002  
[http://unfccc.int/cop8/latest/ind\\_pm3010.pdf](http://unfccc.int/cop8/latest/ind_pm3010.pdf) Page 3

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“First, our per capita Green House Gas emissions are only a fraction of the world average, and an order of magnitude below that of many developed countries. This situation will not change for several decades to come. We do not believe that the ethos of democracy can support any norm other than equal per capita rights to global environmental resources.”

1.13 **Kenyan Minister for Planning and National Development**, Anyang Nyong’o, April 2004  
<http://www.gci.org.uk/speeches/Nyongo.pdf>

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“It is now apparent that the world has to urgently agree to a more equitable method of reducing greenhouse gas emissions based on per capita emission rights allocations. This brings me to the concept of Contraction and Convergence. This concept embodies the principles of precaution (contraction of greenhouse emissions) and of equity (convergence at to equal share per head through a globally agreed date) in the reduction of greenhouse gas emissions between industrialized countries and developing countries.

The world must go an extra mile to avoid climate change, as it is cheaper than adapting to the damages. This in no way under estimates what the Kyoto Protocol aims to achieve from the flexible mechanisms. Kyoto should continue but due to the increasing and unbearable negative impacts of climate change on developing country economies, in particular Africa, the world must begin to evaluate other globally equitable approaches.

The concept of Contraction and Convergence therefore needs to be assessed and evaluated by the United Nations Framework Convention on Climate Change particularly, its Subsidiary Body for Scientific and Technical Advice or the Intergovernmental Panel on Climate Change. I am certain that our Ministers for Environment here present will see the need to bring this agenda very urgently to the attention of the Climate Change Secretariat.”

1.14 **Kenya, Director General of the ruling NARC**, Alex K Muriithi, April 2004  
<http://lists.topica.com/lists/GCN@igc.topica.com/read/message.html?sort=d&mid=1716633749&start=365>

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“Avoiding dangerous rates of climate-change from fossil fuel dependency must be strategically guaranteed with appropriate structural adjustment of the international system.”



“The Contraction and Convergence” (C&C) scheme presented by the Africa Group at COP-3 in Kyoto, is the basis of this.”

“Combined with international currency arrangements, C&C determined carbon shares create an inclusive global standard for sustainable resource use.”

“The full rent for the use of the environmental and atmospheric space of Developing Countries, can be paid by the Developed Countries helping the world move from uneconomic growth to sustainable development for all,”

**1.15 Indian Minister of Food Processing Industries, Shri S. K. Sahay, October 2004**

<http://lists.topica.com/lists/GCN@igc.topica.com/read/message.html?mid=1717677814&sort=d&start=390>

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“We have to find an acceptable and equitable way to reduce emissions that involves every society but recognizes differentiated responsibilities. I suggest that the way forward should be based on the fundamental principles of equity incorporated in the proposals known as “Contraction and Convergence.”

In this increasingly interdependent world, there is no reason to suggest that any individual in any country should have a lesser right to see prosperity or comfort involving green house gas emissions than any other. On what basis is it acceptable that an American or European should have a greater right to consume the World’s precious resources than an Indian, an African or indeed any other human being?

Thus, if the principle of “Contraction and Convergence” is acceptable, then it may be possible to develop a system of carbon trading that would allow those already over dependent on the use of environmentally damaging energy to plan their emissions reduction more slowly by transferring renewable energy technologies to those countries presently less dependent on the carbon emissions.”

**1.16 USA, COP-3 Kyoto, 3a.m. 10th December 1997**

[http://www.gci.org.uk/temp/COP3\\_Transcript.pdf](http://www.gci.org.uk/temp/COP3_Transcript.pdf)

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“ . . . It does seem to us that the proposals by for example India and perhaps by others who speak to Contraction and Convergence are elements for the future, elements perhaps for a next agreement that we may ultimately all seek to engage in . . . ”

**1.17 European Parliament, 1998**

[http://www.environment.fgov.be/Root/tasks/atmosphere/klim/pub/eu/parl/pre%20ba\\_en.htm](http://www.environment.fgov.be/Root/tasks/atmosphere/klim/pub/eu/parl/pre%20ba_en.htm)

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“. . . calls on the Commission & Member States to take the lead in brokering an agreement on a set of common principles & negotiating framework beyond BA based on:

1. agreement to have a worldwide binding limit on global emissions consistent with a maximum atmospheric concentration of 550 ppmv CO<sub>2</sub> equivalent,
2. initial distribution of emissions rights according to the Kyoto targets,
3. progressive convergence towards an equitable distribution of emissions rights on a per capita basis by an agreed date in the next century,
4. across-the-board reductions in emissions rights thereafter in order to achieve the reduction recommended by the Intergovernmental Panel on Climate Change (IPCC),
5. an agreement to have a quantitative ceiling on the use of flexibility mechanisms that will ensure that the majority of emission reductions are met domestically in accordance with the spirit of articles 6, 12 and 17 of the Kyoto protocol; in this context trading must be subject to proper monitoring, reporting and enforcement;
6. an adequately financed mechanism for promoting technology transfer from Annex 1 to non-Annex 1 countries;”

### 1.18 **Danish Environment Minister**, Svend Auken, April 1999

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"The approach of "Contraction and Convergence" is precisely such an idea. It secures a regime that would allow all nations to join efforts to protect our global commons from being over-exploited, without the risk that any country would be deprived of its fair long-term share of the common environmental emission space. And it allows for consistent and efficient management of the global emissions that would enable us to strive for constraining global interference with the climate below fixed ceilings"

### 1.19 **Swedish Minister of the Environment**, Kjell Larsson, September 2000

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"On the issue of equity, Sweden strives for a global convergence, meaning that the long term objective of the international community should be a per capita emissions target equal for all countries. The work towards sustainability embraces the right for the poorest countries to continue their development and requires that the developed world contribute to this. In other words the industrialised countries must reduce their emissions in order to enable the least developed countries to develop."

### 1.20 **Belgian Minister of the Environment**, Olivier Delouze, COP6 November 2000

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"We are conscious that in the end, we will have to inevitably evolve towards a more equitable partition between the north and south, of the capacity of our common atmosphere to support green house gases, by a gradual convergence of the levels of emissions on a per capita basis."

### 1.21 **French President**, Jaques Chirac, COP6, November 2000

<http://www.sovereignty.net/center/chirac.html>

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"Since 1992, we have fallen too far behind in the fight against global warming. We cannot afford any further delay. That is why, I can confirm to you here, Europe is resolved to act and has mobilized to fight the greenhouse effect. Europe calls upon the other industrialized countries to join with it in this fight. And Europe proposes to the developing countries to join it in a partnership for sustainable development.

Let us start thinking about the post-Kyoto period without further ado. Tomorrow, it will be up to us to set forth the rights and duties of each, and for a long time to come. In order to move forward while respecting individual differences and special circumstances, France proposes that we set as our ultimate objective the convergence of per capita emissions. This principle would durably ensure the effectiveness, equity and solidarity of our efforts."

### 1.22 **Netherlands Environment Minister**, Jan Pronk, Chairman of COP-6, July 2000

[http://www.earthtimes.org/jul/environmentthekyotoprotocoljul25\\_00.htm](http://www.earthtimes.org/jul/environmentthekyotoprotocoljul25_00.htm)

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". . . . Suggestions have been made for commitments for those developing countries in the period after 2012 in terms of increased energy or greenhouse gas efficiency. In other words: not an absolute cap, but a relative efficiency improvement in the production structure of developing countries. This strategy would imply that developing countries gradually start participating, as they achieve a certain level of economic development. That is a reasonable and realistic option. However, it can be argued that such gradual participation would only lead to a slow decline of global emissions, even if current industrialized countries would drastically decrease their emissions. As a result global average temperature increase would significantly exceed the 2 degrees centigrade limit that could be seen as the maximum tolerable for our planet.

There are alternatives for this scenario. Some developing countries have argued for an allowance of equal emissions per capita. This would be the most equitable way to determine the contribution of countries to the global effort. If we agree to equal per capita emissions allowances for all countries by 2030 in such a way that global emissions allow us to stay below the 2 degrees global temperature increase (equivalent to about 450 ppmv CO<sub>2</sub>), then the assigned amounts for Annex B countries would be drastically reduced. However, due to the fact that all countries would have assigned amounts, maximum use of global emissions trading would strongly reduce the cost of compliance. So, in such a scenario, industrialized countries would have to do more, but it would be cheaper and easier. . . . "

### 1.23 **Sweden's third national communication on Climate Change**, 2001

<http://www.regeringen.se/content/1/c4/12/88/96b4e59c.pdf>

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"Emissions should ultimately converge towards a common international target, expressed as emissions per inhabitant."<sup>11</sup>

## 2 Publications

- 2.1 **Corner House**, Briefing No.3 - Climate and Equity, December 1997  
<http://www.thecornerhouse.org.uk/briefing/03climate.html>
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“Trading emissions only have a place if they are set in the discipline of contraction and convergence”

- 2.2 **Financial Times**, 30<sup>th</sup> November 2001  
<http://specials.ft.com/worldconomy2001/FT30CRLVJUC.html>
- 

“Many politicians - and businesses making long-term investment plans - would prefer to agree on some overarching principles that would determine future emissions targets. For some policymakers, the answer is “contraction and convergence”.

- 2.3 **ENDS Report**, Blair leadership claim on climate change March 2003  
<http://www.endsreport.com>
- 

“...the RCEP said, future global climate agreements should be based on the so-called “contraction and convergence” approach, under which national emission allocations converge towards a uniform per capita figure.

The Government has accepted the RCEP’s 60% figure – but not the underlying logic”

- 2.4 **New Scientist**, December 2003  
<http://www.newscientist.com/hottopics/climate/climate.jsp?id=ns99994467>
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“For the past two weeks, representatives from around the world have been in Milan, Italy, for COP9, the ninth annual meeting of signatories to the 1992 Framework Convention on Climate Change. Many of them now privately admit that C&C is what we have been waiting for.”

- 2.5 **ICE**, Proceedings of the Institution of Civil Engineers, Paper 13982, December 2004  
<http://www.thomastelford.com/jol/>
- 

“‘Contraction and convergence’ is an ambitious yet widely supported plan to harmonise global greenhouse gas emissions to a safe and sustainable level.”

- 2.6 **Reason Online**, Ronald Bailey, November 3, 2004  
<http://reason.com/rb/rb110304.shtml>
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“While the climate talks in Buenos Aires will deal with the minutiae of implementing the Kyoto Protocol, they will also turn to considering what the next steps might be. And there will have to be next steps, because even when fully implemented the Kyoto Protocol will have next to no effect on any actual global warming trends. My bet is that negotiations will start to consider contraction and convergence”

## 3 Individuals

- 3.1 **Raul Estrada**, Chair Kyoto Negotiations, February 2000  
[http://www.gci.org.uk/articles/Estrada\\_on\\_C&C.pdf](http://www.gci.org.uk/articles/Estrada_on_C&C.pdf)
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“Long before the end of the Framework Convention negotiation, the Global Commons Institute has presented a proposal on “Contraction and Convergence”, aimed to reach equality in emissions per capita. We all in this room know the GCI model where contraction is achieved after all governments, for precautionary reasons, collectively agree to be bound by a target of global GHG emissions, making it possible to calculate the diminishing amount of greenhouse gases that the world can release each year in the coming century, subject to annual scientific and political review. The convergence part of the proposal means that each year’s global emissions budget gets shared out among the nations of the world so that every country converges on the same allocation per inhabitant by an agreed date.”

3.2 **Sir John Houghton**, Former Chair IPCC Working Group One, 26th April 2003

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“Admiration is frequently expressed, regarding the elegance and simple logic of Contraction and Convergence and it has been widely supported by policy makers as a basis that should underlie the next stage of policy formulation.”

3.3 **Lord Bishop of Leicester**, November 2003

[http://www.publications.parliament.uk/pa/ld199900/ldhansrd/pdvn/lds04/text/40209-10.htm#40209-10\\_head0](http://www.publications.parliament.uk/pa/ld199900/ldhansrd/pdvn/lds04/text/40209-10.htm#40209-10_head0)

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“Contraction and convergence, therefore, is a simple yet radical solution, and one that I suggest we should be brave enough to support.”

3.4 **Lord Bishop of Hereford**, 9th February 2004

<http://www.publications.parliament.uk/pa/ld199697/ldhansrd/pdvn/lds03/text/31127-05.htm>

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“Contraction and Convergence meets every single objection raised by the United States to Kyoto.”

3.5 **Michael Meacher MP**, Former Minister for the Environment, December 2003

<http://www.commondreams.org/scriptfiles/views03/1207-04.htm>

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“The best proposal so far is the “Contraction and Convergence” from the Global Commons Institute and Globe Parliamentarians.”

3.6 **George Monbiot**, Manifesto for a New World Order, ISBN: 1565849086, 2003

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“Contraction & Convergence... “the only just and sustainable means of tackling climate change”

3.7 **Myron Ebell**, CEI reports on COP-9, 12th December 2003

<http://www.globalwarming.org/cop9/cop9e.htm>

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“This so-called “Contraction and Convergence” approach appeals to both unreconstructed communists and to human rights absolutists. It has a certain moral force for those lost souls who have completely lost their bearings in the world. So it ought to be the winner in these darkening times.”

3.8 **Dick Lindzen**, After a good meal at “A New Global Vision” Conference, Pisa, July 2004

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“If you really have to stabilise concentrations, a 60% contraction of emissions would be necessary. As for the convergence requirement that follows from this, well I have no faith in the ability of humanity to organise anything like this.”

## 4 Organisations

4.1 **Africa Group**, Mrs. Rungano Karimanzira, Chair, February 1998

[http://www.gci.org.uk/Archive/MegaDoc\\_19.pdf](http://www.gci.org.uk/Archive/MegaDoc_19.pdf)

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“The approach of contraction and convergence presents a new economic development paradigm for the twenty first century and beyond.”

4.2 **Royal Society on Environmental Pollution**, Sir Tom Blundell; Chairman, June 2000

<http://www.rcep.org.uk/newenergy.htm>

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“The government should press for a future global climate agreement based on the “Contraction and Convergence’ approach, combined with international trading in emission permits. These offer the best long-term prospect of securing equity, economy and international consensus.”

4.3 **UK Chartered Insurance Institute**, Report on Global Climate Change, March 2001  
[http://www.gci.org.uk/Archive/MegaDoc\\_19.pdf](http://www.gci.org.uk/Archive/MegaDoc_19.pdf)

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“The most realistic way to bring about the required reduction in ghg emissions (which will have the combined effect of reducing the damage imposed on the insurance industry and encouraging the transition to renewable energy) is that proposed in the concept of Contraction and Convergence.”

4.4 **IPCC WG3**, Third Policy Assessment, Chapter 1, Section 3.2, 2001  
[http://www.grida.no/climate/ipcc\\_tar/wg3/pdf/1.pdf](http://www.grida.no/climate/ipcc_tar/wg3/pdf/1.pdf)

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“A formulation that carries the rights-based approach to its logical conclusion is that of contraction and convergence.”

4.5 **Green Party**, Climate Change Policy,  
<http://policy.greenparty.org.uk/mfss/climchg.html>

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“The Green Party advocates the adoption by the UNFCCC of a framework of Contraction and Convergence (C&C) as the key ingredient in the global political solution to the problem of Climate Change mitigation, and urges the UK and other governments use it as the basis for negotiations in the international fora ”

4.6 **New Economics Foundation, Ed Mayo, Director, October 2002**  
<http://www.gci.org.uk/correspondence/NefEdC&C.pdf>

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“We regard Contraction and Convergence as no less than the logical starting point for any sustainable future.”

4.7 **Performance and Innovation Unit**, The Energy Review, February 2002  
<http://www.number-10.gov.uk/su/energy/TheEnergyReview.PDF>

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“The RCEP suggested that a 60% reduction for the UK by 2050 would be needed within a contraction and convergence agreement”

4.8 **UNEP Finance Initiatives**, 7th October 2002  
[http://www.unepfi.net/cc/ceobriefing\\_ccwg\\_unepfi.pdf](http://www.unepfi.net/cc/ceobriefing_ccwg_unepfi.pdf)

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“For the long-term, policy makers should reach consensus on a global framework for climate stability based on the principles of precaution and equity such as Contraction and Convergence which would aim to achieve equal per capita emissions for all nations by an agreed date.”

4.9 **UNFCCC**, Secretariat, COP-9, 4th December 2003  
[http://www.gci.org.uk/slideshow/C&C\\_UNFCCC.pdf](http://www.gci.org.uk/slideshow/C&C_UNFCCC.pdf)

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“Stabilization inevitably requires ‘contraction and convergence’”

4.10 **World Council of Churches**, David Hallman, Programme Coordinator, October 2003  
<http://www.wcc-coe.org/wcc/what/jpc/moscow2003.html>

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“A fair distribution, establishing the concept of per capita emission rights for all countries, as proposed in the ‘Contraction and Convergence’ scheme.”

4.11 **Climate Network Africa**, Grace Akumu, Director, 28th April 2003  
[http://www.gci.org.uk/Archive/MegaDoc\\_19.pdf](http://www.gci.org.uk/Archive/MegaDoc_19.pdf)

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“Many governments around the world have accepted the concept of Contraction and Convergence as the only equitable response mechanism to the threat of climate change.”

4.12 **UK Environment Agency**, Sir John Harman; Chairman, 9th December 2003  
<http://www.gci.org.uk/correspondence/EnvAgency.pdf>

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“I support the concept of ‘Contraction and Convergence’, as does the Environment Agency.”

- 4.13 **World Nuclear Association**, John Ritch, President, December 2003  
<http://world-nuclear.org/dgspeeches/wiltonpark2003.htm>
- 

“I not only support the C&C concept, I find it inconceivable that we will avert climate catastrophe without a regime built on some variation of this approach. In the debate about climate change, an impression has been created that the problem is too daunting and complex to prevent. Contraction and Convergence provides a way forward that is both fair and feasible.”

- 4.14 **FEASTA**, Richard Douthwaite;  
<http://www.feasta.org/events/debtconf/sleepwalking.htm>
- 

“ . . . to say - as a growing number of people now do - that the right to emit carbon dioxide should be considered a human right and that emissions permits should therefore be issued to all humankind on an equal basis. “Contraction and Convergence”, a surprisingly flexible plan is based on this idea.”

- 4.15 **WBGU**, German Advisory Council on Global Change, Dr. John Schelnhuber; Climate Protection Strategies for the 21st Century: Kyoto and beyond, November 2003  
[http://www.wbgu.de/wbgu\\_sn2003\\_engl.pdf](http://www.wbgu.de/wbgu_sn2003_engl.pdf)
- 

“ . . . WBGU recommends emission rights be allocated according to the ‘Contraction and Convergence’ approach.”

- 4.16 **IPPR**, Tony Grayling, Associate Director and Head of Sustainability, September 2003  
<http://www.blackwell-synergy.com/links/doi/10.1111%2F1468-0041.00303>
- 

“The Prime Minister has already expressed his desire to create a global deal or ‘climate covenant’ between North and South on the issue of climate change. IPPR’s belief is that the Contraction and Convergence framework for global climate policy is the practical application of this aspiration.”

- 4.17 **Zululand Environmental Alliance (ZEAL), Prof. James M. Phelps, Chairman, April 2003**  
[http://www.gci.org.uk/Archive/MegaDoc\\_19.pdf](http://www.gci.org.uk/Archive/MegaDoc_19.pdf)
- 

“Without equity considerations as devised in Contraction and Convergence, the Climate Change Convention and the Kyoto Protocol will remain un-implementable and leave all people on earth facing the devastating effects of climate change.”

- 4.18 **The Australia Institute, Dr Clive Hamilton, 29 April 2003**  
[http://www.gci.org.uk/Archive/MegaDoc\\_19.pdf](http://www.gci.org.uk/Archive/MegaDoc_19.pdf)
- 

“The idea of ‘Contraction and Convergence’ is destined to be one of the most important principles governing international relations in the 21st century. It is a powerful ethic that incorporates global justice and sustainability and thereby bridges the dominant concerns of the last century and this one. It is the only way to accommodate the interests, ethical and economic, of developing countries and rich countries in the struggle to find a solution to the most important environmental problem facing the world.”

- 4.19 **DEFRA**, The Scientific Case for Setting a Long-Term Emission Reduction Target, 2003  
[http://www.defra.gov.uk/environment/climatechange/ewpscience/ewp\\_targetscience.pdf](http://www.defra.gov.uk/environment/climatechange/ewpscience/ewp_targetscience.pdf)
- 

“Methodology:

The framework of this study builds on the RCEP work which uses a convergence and contraction methodology. Whilst prescribed per capita emissions are retained, the flexibility is such that these are only a tool to constrain total emissions and this should not be considered a typical contraction and convergence (C&C)\* approach (although any mechanism which brings all emissions to a level lower than today’s will have an element of C&C).

\* Contraction and convergence is an international policy framework for dealing with global climate change developed by the London-based Global Commons Institute.”

4.20 **WWF**, Living Planet Report, November 2004  
<http://www.panda.org/downloads/general/lpr2004.pdf>

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“Contraction & Convergence (C&C) as proposed by Aubrey Meyer from the Global Commons Institute (Meyer 2001) provides a simple framework for globally allocating the right to emit carbon in a way that is consistent with the physical constraints of the biosphere.”

4.21 **GLA**, Green light to clean power - The Mayor’s Energy Strategy, February 2004  
[http://www.london.gov.uk/mayor/strategies/energy/docs/energy\\_strategy04.pdf](http://www.london.gov.uk/mayor/strategies/energy/docs/energy_strategy04.pdf)

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“The recommendations of the Royal Commission on Environmental Pollution are based on a contraction and convergence scenario in which global emissions converge in 2050, and atmospheric CO<sub>2</sub> concentration is stabilised at 550ppm by 2100. The Mayor believes that all national and regional emissions reduction targets, including those proposed in this strategy, must be seen as part of this long-term process. The Government’s support for the commission’s recommendations for a 60 per cent reduction in emissions by 2050 implies an acceptance of the contraction and convergence scenario that produced the recommendation. The Mayor encourages the Government to acknowledge this.

**policy 2** The Mayor supports the principle of contraction and convergence as a long-term international policy objective.

The contraction and convergence proposal was developed by the Global Commons Institute, London. Details of its origins, methodology, and support are available online at <http://www.gci.org.uk>.”

4.22 **Church of England**, Archbishop of Canterbury Dr. Rowan Williams, 5th July 2004  
<http://www.gci.org.uk/speeches/Williams.pdf>

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“This kind of thinking [C&C] appears utopian only if we refuse to contemplate the alternatives honestly”

The Prime Minister has already declared that his international priorities as chair of the G-8 in 2005 will include climate change and the future of Africa: Contraction and Convergence addresses both of these”

4.23 **Scottish Environment Protection Agency**, Report No. SEPA 69/04, 12 October 2004  
<http://www.sepa.org.uk/pdf/board/agency/2004/papers/1210/6904.pdf>

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“It is essential that the EU facilitates the exporting and uptake of energy efficient technologies to developing nations, to ensure that the growth of emissions from these countries is minimised and consistent with the principles of Contraction and Convergence.”

4.24 **Liberal Democrats, Charles Kennedy**, 16<sup>th</sup> November 2004  
[http://www.gci.org.uk/speeches/Kennedy\\_C&C\\_Speech.pdf](http://www.gci.org.uk/speeches/Kennedy_C&C_Speech.pdf)

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“If Tony Blair is really serious in making his mark in these areas, the greatest single achievement for the UK’s G8 presidency in combating climate change would be securing agreement among G8 nations, including the United States, that the way forward will be based on this principle of contraction and convergence.”

# Contraction &

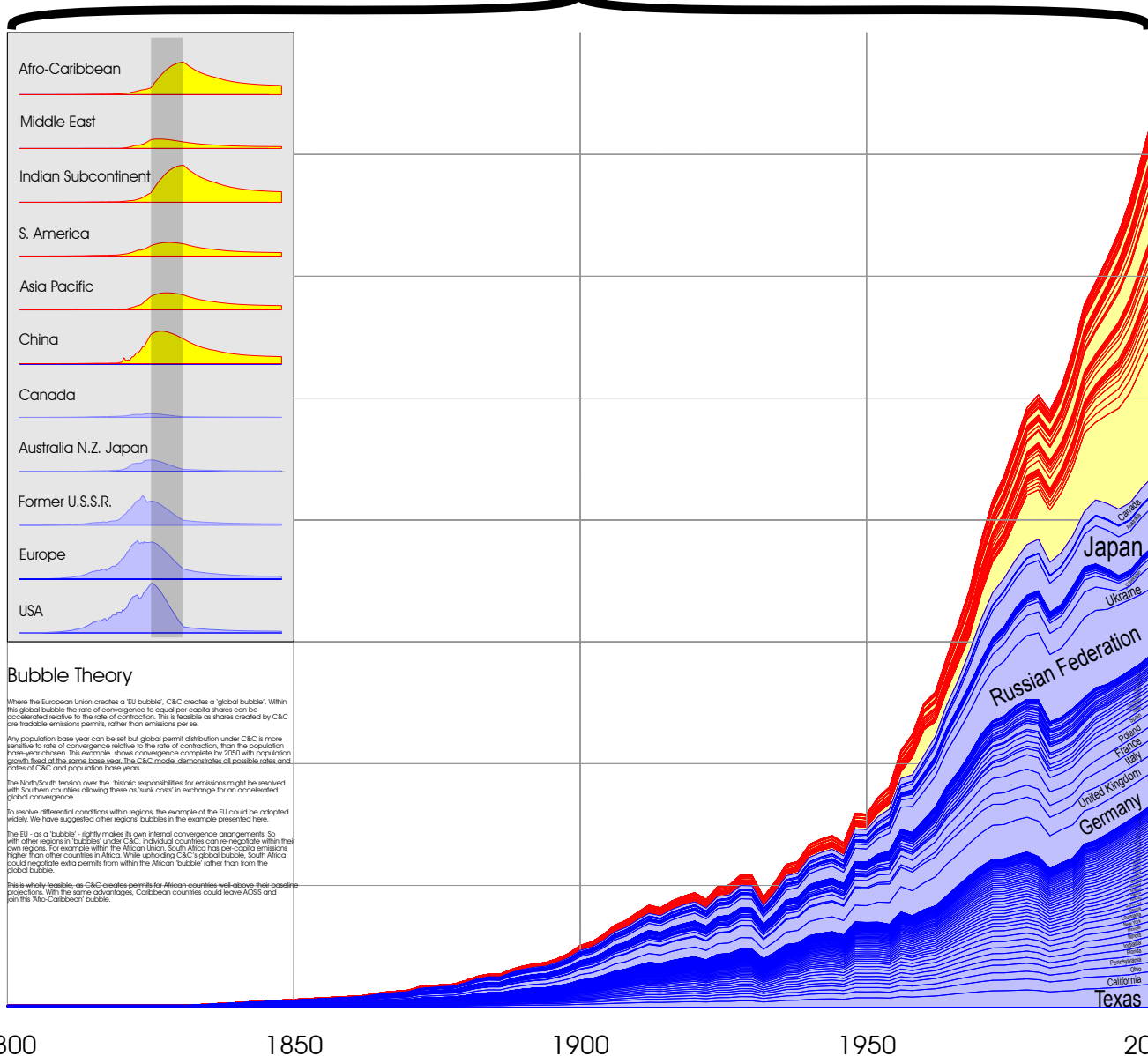
## The Objective - stabilise atmospheric ghg concentrations

C&C is based on a global ghg emissions 'contraction' budget calculated from a safe and stable (revisable) ghg concentration target. The example shown is for CO<sub>2</sub> contraction complete by 2100 to give 450 ppmv, as modeled in IPCC Wg1.

## The Framework - contraction & convergence

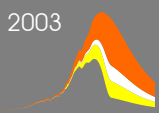
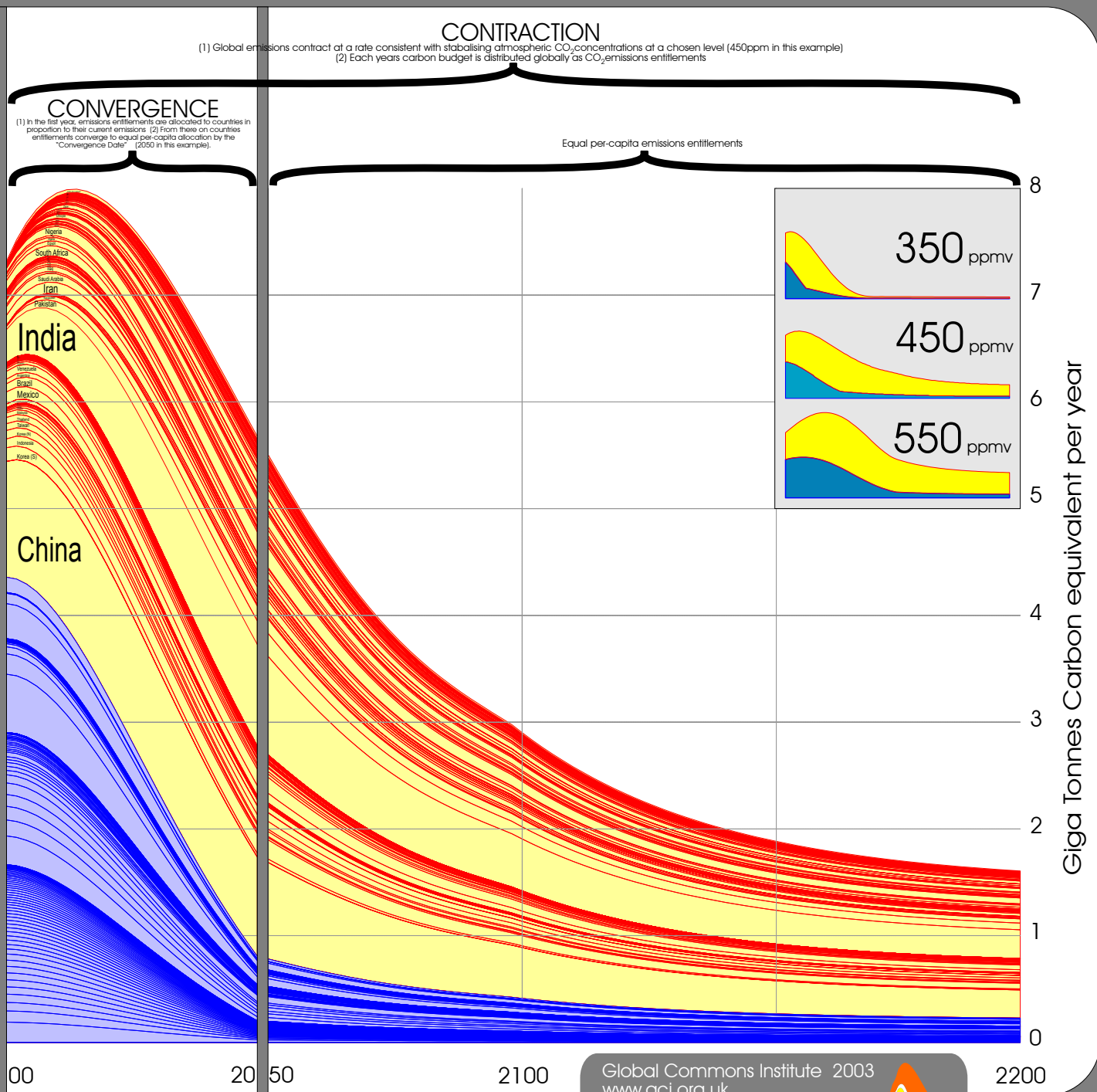
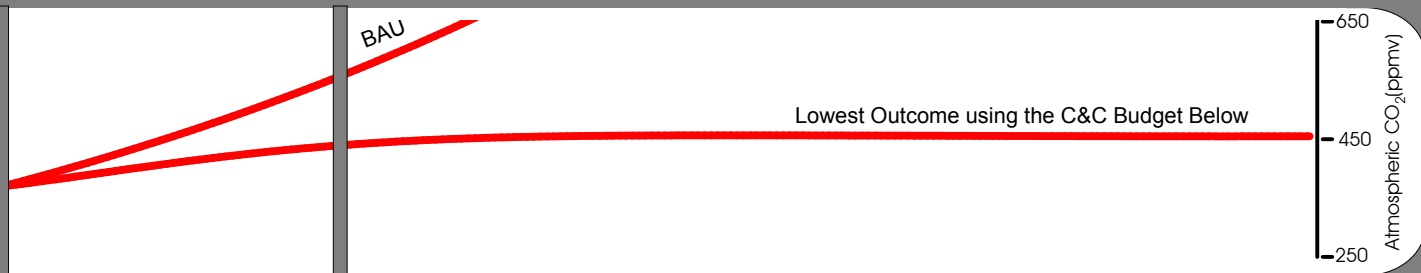
Convergence is to equal per capita shares of contraction by an agreed date, [here by 2050 [population base year 2050]]. The model will show any rates of C&C.

(1) Historic expansion of annual global CO<sub>2</sub> emissions  
(2) Historic divergence of per-capita emissions within different regions and countries





# Convergence



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# THE·JOHN·RAY·INITIATIVE

## promoting·environmental·sustainability

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From the Chairman: Sir John Houghton CBE FRS  
Brynhyfryd, Aberdyfi, Gwynedd, Wales LL35 0SN  
Email: [john.houghton@jri.org.uk](mailto:john.houghton@jri.org.uk)

RE: NOMINATION OF AUBREY MEYER FOR THE SASAKAWA PRIZE 2003.

I have been closely connected with the national and international concern and debate regarding Climate Change for some 15 years, particularly through my involvement with the Intergovernmental Panel on Climate Change (as chair or co-chair of the Science Assessment Working Group 1988-2002), the UK Royal Commission on Environmental Pollution (as chairman 1992-1998) and the UK Government Panel on Sustainable Development (member from 1994-2000). The urgent need for international action to mitigate climate change has become increasingly apparent over this period. How the necessary reductions in global emissions of carbon dioxide over the next few decades can be achieved is a vexing question that is concerning all nations in the context of the Framework Convention on Climate Change (FCCC) which they all have signed.

The Principles that should govern international action are generally agreed namely the Precautionary Principle, the Principle of Sustainable Development, the Polluter-Pays Principle and the Principle of Equity (both intergenerational and international). The problem is to turn these into detailed practical long-term arrangements to which all nations can agree. Aubrey Meyer and the Global Commons Institute that he directs, 15 years ago, proposed an arrangement called 'Contraction and Convergence' that was formulated using the simplest possible logic and that well satisfies the four principles. The proposal is visionary in that it clearly addresses the long-term problem; it is also admirably practical. Further, because at its heart is equal per capita sharing of emissions allocations, it provides a unique solution to the equity principle that is the hardest one for the international community to address.

Since the formulation of 'Contraction and Convergence', Aubrey Meyer has tirelessly and selflessly argued for and promoted it with great energy and tenacity in scientific, economic and political fora. Admiration is frequently expressed regarding its elegance and simple logic and it has been widely accepted by policy makers and by NGOs as a basis that should underlie the next stage of policy formulation. For instance, the UK's Royal Commission on Environmental Pollution, in an influential study on Energy published in 2000 used it at the basis of its recommendations. In fact there is no other proposal in play that meets so many of the required principles and criteria or that has any real chance of succeeding. It is bound to be strongly influential in the crucial round of international negotiations in the FCCC that is about to begin.

The personal dedication of Aubrey Meyer, born of a deep concern for global humanity and its future, is what has brought the Contraction and Convergence proposal to the influential position it holds today. I am most pleased to strongly support his nomination for the Sasakawa Prize. I cannot think of a more appropriate recipient.

JOHN HOUGHTON  
26 April 2003

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Sir John Houghton CBE, FRS (Chairman)  
Mrs Claire Ashton (Executive Secretary)  
Mr Paul Houghton (Treasurer)  
Mr John Salter (Company Secretary)  
Dr Peter Carruthers (Executive Director)  
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FROM THE RT HON MICHAEL MEACHER MP  
MINISTER FOR THE ENVIRONMENT AND AGRI-ENVIRONMENT

**DEFRA**  
Department for  
**Environment,**  
**Food & Rural Affairs**

Nobel House  
17 Smith Square  
London SW1P 3JR  
**Tel:** 020 7238 5404  
**Fax:** 020 7238 5976

Aubrey Meyer's contribution to the policy debate on how to avoid dangerous climate change has been sustained and outstanding.

Since 1989 he and his tiny organisation - the Global Commons Institute (GCI) - have been successfully challenging officials around the world including politicians like myself to adopt "Contraction and Convergence", GCI's global framework for climate change policies based on precaution, logic and equity

With scant material support and an extraordinary dedication and persistence, he created and communicated this visionary concept for a long-term global framework for negotiating the international allocation of greenhouse gas emissions permits.

He has already convinced numerous leading figures in the international negotiating community, the insurance industry, the scientific community, the environmental media and politics of the absence of effective alternatives to "Contraction and Convergence". So much so that in June 2000, the UK's Royal Commission on Environmental Pollution made it a key recommendation to this government. The concept has been endorsed by the European Parliament and many members of the UK parliament as well, including the former Secretary of State for the Environment, John Gummer and Ministers from practically all European countries. Under GCI's advice the concept was led at the UN negotiations by the Indian Government in 1995 and again by the Africa Group of Nations in 1997. Again as a result of GCI publications, C&C has also been endorsed by numerous eminent individuals and institutions and is more and more widely quoted in prestigious academic publications.

Lest we make the planet uninhabitable, the international community must come soon to an agreement on how to organise the global effort to avoid this. Contraction and Convergence is a very powerful idea and I have no doubt that the concept will continue to be an influential force in discussions, as one model of how greenhouse gas emissions can be allocated in a fair and equitable manner.

If ever there was an initiative that deserved recognition and support, it is the brilliant and relentless campaign waged by this fiercely independent, creative and apparently quite tireless individual.



**ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION**  
**Third Floor 5-8 The Sanctuary Westminster London SW1P 3JS**

**From The Chairman**  
**Sir Tom Blundell FRS FMedSci**

**Direct Line: 020 7799 8984**  
**Enquiries: 020 7799 8985**  
**Fax: 020 7799 8971**  
**E-mail: [chairman@rcep.org.uk](mailto:chairman@rcep.org.uk)**  
**Website: <http://www.rcep.org>**

**Citation of Aubrey Meyer, Global Commons Institute  
for the Sasakawa Prize.**

I write to support the nomination of Aubrey Meyer for the Sasakawa Prize. Over the past fifteen years Aubrey Meyer has developed the idea of Contraction and Convergence as an international solution to the challenge of global warming and climate change. He has done this through the Global Commons Institute with very little funding and infrastructure. These ideas influenced the Royal Commission on Environmental Pollution in the development of its report "Energy: the Changing Climate" and Contraction and Convergence was the basis of the recommended 60% reduction in carbon emissions. This recommendation has been taken up by the government in its recent Energy White Paper and is now the generally accepted basis for policy by a range of government, industry and non-governmental organisations.

Aubrey Meyer is a visionary, but it has been hard to get the message through to governments. The award of the Sasakawa Prize would give much support to this very important work, and be a splendid recognition his important contributions.

Sir Tom Blundell,  
Chairman,  
Royal Commission on Environmental Pollution.



**Association For Sustainable & Responsible Investment In Asia**

25<sup>th</sup> April, 2003

Aubrey Meyer is testimony to the fact that individual effort can make a difference. It is absolutely remarkable that the idea of Contraction and Convergence has taken such a firm hold worldwide in such a short space of time, especially when you see the tiny operation which has championed this essential idea. I remember at Kyoto in 1997 when policy-makers derided the proposition without a second thought. That type of response has all but disappeared, certainly within the more thoughtful arenas of climate policy.

Through sheer determination, focus and good manners Aubrey has broken through global ignorance and prejudice to make just, common sense prevail... and he has done so on climate change, the most chronic threat which the world currently faces.

We all have a great deal to thank Aubrey for, and I firmly believe that there is no-one better to receive the Sasakawa Award. Please give Aubrey Meyer your greatest consideration.

Yours faithfully,

Tessa Tennant  
Executive Chair

The idea of contraction and convergence is destined to be one of the most important principles governing international relations in the twenty-first century. It is a powerful ethic that incorporates global justice and sustainability and thereby bridges the dominant concerns of the last century and this one. It is the only way to accommodate the interests, ethical and economic, of developing countries and rich countries in the struggle to find a solution to the most important environmental problem facing the world.

The widespread international recognition and endorsement of contraction and convergence is due largely to the efforts of Aubrey Meyer and the Global Commons Institute. Aubrey has been an indefatigable advocate of the principle as the only long-term solution to the enormous threat posed by climate change.

His commitment has come at considerable personal cost. If the world did not have a few score individuals such as Aubrey it would be a much poorer place, for all great ideas of history must have their passionate advocates. I believe that we are reaching the end of the first phase of the idea of contraction and convergence and it would be fitting to acknowledge Aubrey's extraordinary contribution thus far.

Yours sincerely

Dr Clive Hamilton  
Executive Director  
The Australia Institute

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**Citation of Aubrey Meyer, Global Commons Institute,  
for the Sasakawa Prize, 2003**

by

Dr Andrew Dlugolecki

Advisory Board Director, Carbon Disclosure Project

Adviser on Climate Change to UNEP Finance Sector Initiative

Aubrey Meyer's insight into the problem of mitigation of climate change bears the true hallmark of genius: it is simple and robust. His "Contraction and Convergence" model provides a transparent framework that incorporates the clear objective of a safe global level of greenhouse gases, AND allocates the responsibility for achieving this internationally with the irresistible logic of equal shares. At the same time, the model recognises the practical need for an adjustment period to permit nations to conform to the new logic and prepare for a climate-friendly economy. It is no doctrinaire solution, but a brilliantly pragmatic and elegant solution.

Aubrey and his tiny organisation GCI, have laboured tirelessly to bring the concept to every conceivable stakeholder's attention, from governments to NGO's, to the business world, in which I operate. Too often, mitigation is portrayed as being detrimental to economic development. Aubrey has demonstrated through his brilliantly simple graphics, that in fact mitigation is the guarantor of wealth creation, not its nemesis, and that market forces can accelerate the transition to a safer climate. This is a key message in mustering the support of the business world, and already the UNEP Finance Sector Initiative has commended "C&C" to policymakers as a basis for negotiation.

In the forthcoming discussions on how to follow up "Kyoto" with more meaningful action, surely Contraction and Convergence will be the pivotal proposal that reconciles developing and developed nations' ambitions. It is only fitting that Aubrey Meyer should be recognised for creating such a seminal concept, and promoting it so effectively.

## Richard Sandbrook

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SW20 OSQ

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Fax +44 208 947 5130  
rsandbrook@aol.com

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26 May 2003

### **To whom it may concern re:**

#### **Aubrey Meyer and the Global Commons Institute**

I am a private consultant in the arena of Sustainable Development. I am one of UNEP's global 500 award winners and have been associated with the agency since its inception. I was a co-founder of Friends of the Earth and the Director of the International Institute for Environment and Development for 11 years (1988- 1999) I want to support the nomination of the above for the Sasaki prize.

Contraction and Convergence is the idea of Aubrey Meyer. It is not a complex idea – not at all. But then that is its beauty. It has even been criticised on this basis as if complexity was needed in matters of fairness and global security. It simply has it that all mankind should move progressively toward a common and defined right to emit greenhouse gases. This is the only long-term way to look at the issue and the only long-term way to solve it without discord. To get there we need contraction by some in their emissions and we have to allow for increases by others if they are to develop. We should converge to one level for all.

We cannot achieve the millennium goals and the challenges of Kyoto without contraction and convergence – even if we call it by another name. Aubrey has over the last 15 years persisted in promoting the idea – sometimes to the point of exasperation toward him – sometimes to see the idea renamed and represented under another guise. He is one of those hidden heroes of the environmental movement – unsung and unrecognised - but right.

If this award is about people and institutions that make a real difference then he should be recognised by it. In 50 years time we will talk of Meyer's principle much as we talk about the Kyoto agreements now. I commend him and the Global Commons Institute to you.



**PROFESSOR DAVID CRICHTON, MA, FCII,  
Chartered Insurance Practitioner**

28<sup>th</sup> April 2003

United Nations  
Nairobi

Dear sir/madam,

**The UNEP Sasakawa Award**

I am a consultant specialising in advising insurance companies on climate change issues. I have advised insurers and governments in four continents on these issues in recent years, and I wish to support the nomination Aubrey Meyer of the Global Commons Institute for this award.

The campaign for "Contraction and Convergence" is fifteen years old this year. The fact that it is now seen by many individuals, governments, and organisations around the world as the only long term equitable and practical solution to global climate change is a tribute to Aubrey's commitment and personal hard work.

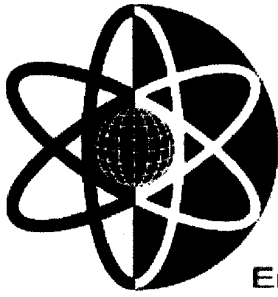
The global insurance industry is three times bigger than the fossil fuel industry and controls more than 30% of the world's stocks and shares. The more enlightened sections of the insurance industry, such as those which have signed up to the Statement of Environmental Commitment of the UNEP Insurance Industry Initiative, recognise that it is essential that efforts are made at every level to mitigate future climate change, and Contraction and Convergence is the only effective and fair way to achieve this.

The Global Commons Institute is a very small organisation and if Aubrey were to be awarded a prize, it would make an enormous impact in assisting him in spreading this important message.

Yours faithfully,

David Crichton

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♦ **PHONE: 01828 686493 • FAX: 01828 686961**  
♦ **Email: david@crichton.sol.co.uk**



# World Nuclear Association

Energy For Sustainable Development

## *From the Director General*

28 April 2003

To the Awarders of the Sassakawa Prize:

I am pleased to have the opportunity to express approval of the nomination made by Christopher Layton, Hon Director General of the Commission of the European Union.

I agree that Aubrey Meyer is the outstanding candidate for the Sassakawa Prize, for two reasons:

First is his simple but brilliant constitutional concept of Contraction and Convergence for avoiding catastrophic climate change.

Second is his relentless and increasingly successful international promotion of this concept over the last fifteen years.

At any rates specified, the C&C model plots two simple things:

- Future greenhouse gas emissions on a global path, via a contraction rate – or or contraction budget – that would stabilise the atmospheric concentration at a safe level; and
- The tradable international permits or shares in this budget that become equal per capita globally at a rate of convergence that is deliberately faster than the contraction rate, and so fair against the historic emissions of the industrial countries.

In the debate about climate change, an impression has been created that the problem is too daunting and complex to prevent. Contraction and Convergence provides a way forward that it is both fair and feasible.

It fulfils the stated goals of the UNFCCC. It satisfies the U.S. Senate's Byrd-Hagel Resolution. And it answers the developing countries' demand for equity.

As such, C&C would resolve the North-South stalemate and enable us to achieve our urgent global emissions-reduction imperative.

Aubrey has matched the craft of his C&C model with the skill and guts to fight for – and win – friends for it all over the world. For more than a decade, he has done this independently and with no institutional support.

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His achievement is not just impressive but inspirational. C&C is now at the centre of the IPCC and UNFCCC policy debate as the most widely referenced and cited approach. It has been profoundly influential in commercial, religious and academic circles, as well in the civil service, civil society and the media.

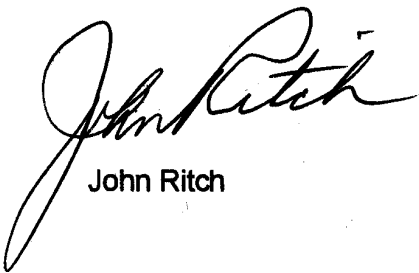
C&C is rapidly becoming the most widely recognised successor to the Kyoto Protocol.

Whatever technologies come into play in humanity's quest to make and share a sustainable future, C&C will inevitably be the framework we use.

By recognising Aubrey's achievement, the Sassakawa jury will help speed our quest for a solution to a global crisis without precedent.

I can think of no person and no idea more deserving of your reward.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'John Ritch', with a large, sweeping flourish extending downwards and to the left.

John Ritch



climate network  
Africa  
network  
network  
network  
network

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28 April 2003

SASAKAWA PRIZE 2003 NOMINATION

RE: AUBREY MEYER  
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It is with great pleasure that I support the nomination of Aubrey Meyer of Global Commons Institute for the 2003 Sasakawa prize. It is rare to find people with both drive and determination, pushing for a global cause single handedly, the way Aubrey Meyer has done with the concept of Contraction and Convergence for approximately fifteen years.

Aubrey has demonstrated talent, courage and patience with the concept of Contraction and Convergence throughout the history of the United Nations Framework Convention on Climate Change (UN-FCCC) negotiations. They say patience pays. Yes, it does as today, many governments around the world have accepted the concept of Contraction and Convergence as the only equitable response mechanism to the threat of climate change. Without equity considerations, implementation of the Climate Change Convention and the Kyoto Protocol will continue to elude all countries with the tragic consequences of the devastating impacts of climate change.

Many African countries as well as NGOs are aware that the African continent will suffer the most from the impacts of climate change. It is with this in mind that in 1997, the African Group at the UN-FCCC publicly supported in the plenary, the concept of Contraction and Convergence.

I therefore fully support Aubrey Meyer's nomination for the 2003 Sasakawa Prize.

Grace Akumu,  
Executive Director,  
Climate Network Africa.

09/05/2003

Christopher Layton  
Hon Director General,  
Commission of the European Union  
44 Copperfields  
Horrabridge  
Near Yelberton  
DEVON PL20 7UB

### **SUPPORTING THE NOMINATION OF AUBREY MEYER FOR THE SASKAWA PRIZE 2003**

Aged 42 and halfway through a notable career as a violinist and composer, Aubrey Meyer turned abruptly from music to environmental concerns in 1988 after hearing of the murder of Chico Mendez and the plight of Amazonia and its peoples.

In 1989 to address climate change, he founded the Global Commons Institute (GCI) on the principle Equity and Survival serving since then as Director. GCI's mission has been to arrest global warming addressing its unequal human causes and effects, using the ghg emissions management model developed at GCI called *Contraction-and-Convergence(C&C)*.

Meyer contributed extensive analytical work to the Second and Third Assessments of the IPCC (1995 and 2000), memorably challenging the short-sighted economic discourse in the Second and establishing a beachhead for C&C in the Third.

C&C has gradually had significant impact and success. In 1997 Meyer was awarded the British Environment Media's Andrew Lees Memorial Award, with this citation: -

*"Aubrey Meyer, almost single-handedly and with minimal resources, has made an extraordinary impact on the negotiations on the Climate Change Treaty, one of the most important of our time, through his campaign for a goal of equal per capita emissions entitlements, which is now the official negotiating position of many governments, and is gaining acceptance in developed and developing countries alike."*

He received the Schumacher Prize in 2000 for continuing these efforts and writing them up in their briefing number 5,

*"Contraction and Convergence - the Global Solution to Climate Change."*

His unifying inter-disciplinary analysis, original visual imagery, tenacious and focused messaging, amplified now through the rapidly growing e-list the Global Commons Network (GCN), have now made C&C the most widely known and probably the most widely supported proposal for global solution to the global problem of climate change. C&C has generated tens of thousands of references and citations in the media and academia in at least eight languages and C&C is now a byword in the international debate supported by a growing number of eminent individuals and institutions in the sectors of commerce, politics, academia, civil service, civil society and the faith community.

The campaign is still run on a near voluntary basis with one full and one part time staff member on an annual average budget of £15,000. Against the enormity of the issue, this effort to address it has seen GCI recently described as, *the most efficient NGO in history*.

GCI's director is one of the under-sung heroes of our time.

Elisabeth Guilbaud-Cox  
Sasawaka Prize  
UN Environment Programme  
Division of Communications and Public Information  
PO Box 30552  
Nairobi  
Kenya

29 April 2003

### **Nomination for Sasakawa Prize 2003: Aubrey Meyer, Global Commons Institute**

It is my great pleasure to write to nominate Mr Aubrey Meyer, director of the London-based Global Commons Institute, for the Sasakawa Prize 2003. This written nomination follows my nomination of Mr Meyer both on the UNEP website and via e-mail.

Since 1990, Aubrey Meyer has been the director of the Global Commons Institute, a small, underfunded and yet astonishingly effective think tank and advocacy organisation focussed on international climate change. From a background in classical music, Aubrey has emerged to be at the forefront of the global climate agenda.

He has run an extraordinary campaign on global climate policy – usually single-handed, and frequently in the face of extreme financial difficulties – which has seen him invited to present his ideas in countries all over the world, attracted the support of governments, heads of state and parliamentarians around the globe, and won the admiration of a bewildering array of leaders in environmental advocacy and campaigning.

At the heart of his efforts has been the ‘Contraction and Convergence’ (C&C) framework for international climate policy, which he devised. C&C is a simple and yet remorselessly logical framework that mandates:

- ❖ a contraction in global emissions, consistent with limiting emissions to a safe level of concentrations in the atmosphere (reflecting the objective of Article 2 of the UNFCCC), and
- ❖ a concurrent convergence of national entitlements under this ‘global emissions budget’ so that all countries arrive at equal per capita entitlements to the atmosphere by an agreed date.
- ❖ full international emissions trading in order to maximise flexibility as well as to give developing countries an incentive to take part in quantified entitlements.

Despite starting out on his campaign with no prior experience of political advocacy work, no funding, no staff and no idea that we would still be running the same campaign more than a decade later, Mr Meyer has clocked up a sequence of extraordinary achievements in his campaign for the logic of C&C to be recognised and adopted. Indeed, there is every possibility that his idea may come to be the basis of how international climate policy is structured in future commitment periods.

As well as promoting C&C within the UNFCCC and beyond, Mr Meyer has also been a tireless and passionate campaigner for the ability of developing countries to participate fully and meaningfully in international climate negotiations, despite their lower capacity compared to developed countries. He played a critical role in helping developing countries to ensure that their concerns over IPCC WG3’s Second

Assessment Report contribution were listened to and acted on – indeed, it is probably no exaggeration to suggest that without Mr Meyer's help, the Second Assessment Report would have gone to press still containing calculations that valued an individual life unequally in developed and developing countries.

I believe that Mr Meyer exemplifies the qualities that the Sasakawa Environment Prize exists to honour. He has shown wisdom, compassion, an understanding of global interdependence that has been an example to me and to many others whom have worked with him, and above all extraordinary and continuing perseverance and tenacity in his campaign. I hope very much that you will consider this nomination positively.

Enclosed is a selection of GCI materials published over the last twelve years (as well as a CD containing the same material), which I hope will be useful to you as background. Please do not hesitate to contact me if I can be of any further assistance to the Selection Committee in its considerations.

Yours sincerely

**Alex Evans**  
**Energy and Environment Research Fellow**

I first met Aubrey Meyer early in 1992 just prior to INC/V being held in New York. He was trying to arrange a conference on climate and equity issues. Throughout our long telephone conversation I was struck by the beauty of the argument now called the "Contraction and Convergence" theory as well as its simplicity.

In addition, Aubrey himself seemed driven by an utter belief in the principle enshrined in the "C+C" approach. When he later sent me copies of the graphics that back up the "C+C" argument I was blown away by their incisiveness and attention to detail. I have been a believer in "C+C" ever since and maintain that it is the only credible answer to a very complex climate problem.

Aubrey has operated without any major funding ever since I have known him. He relies on other people's goodwill and donations. He has never compromised himself or his idea in order to obtain inappropriate funding. This has to be commended in an ever more commercial world. He tirelessly campaigns for the cause and will never give in despite the forces ranged against him.

Climate politics are entering a decisive phase as we approach the adoption of the Kyoto Protocol and it's strengthening by what ever means are deemed politically acceptable. Never before has GCI needed backing, recognition and funding as now.

To miss this opportunity would be a great shame for a beautifully simple idea that could literally change the future of the human race.

**Dr Julian E Salt**  
**Director**  
**Climate Solutions Consultancy**

# **ZEAL** Zululand Environmental Alliance

An alliance of associations and persons pro the environment

P. O. Box 12194 Empangeni South Africa 3880

Phone: 035-772-5967 (Chairman's home)

Email address: [jmphelps@iafrica.com](mailto:jmphelps@iafrica.com)

30 April 2003

Per email to [cna@lion.meteo.go.ke](mailto:cna@lion.meteo.go.ke)

This letter went to: -

The Director  
Climate Network Africa (CNA)  
Wood Avenue, Kilimani  
P.O Box 76479  
Nairobi 00508 - Kenya

Dear Grace

## **Re: Nomination of Aubrey Meyer for the 2003 SASAKAWA PRIZE**

It is with great pleasure that I support the nomination of Aubrey Meyer of Global Commons Institute for the 2003 Sasakawa prize.

Aubrey has brought to bear exceptional determination in advancing the brilliant concept of Contraction and Convergence, over long hard years with the Global Commons Institute—fifteen in all so far. It has been a frequently solitary struggle, and pursued with very limited resources. But Aubrey has not been daunted. Instead he has persevered, driven by his clear-sighted vision of the workability of Contraction and Convergence. His work offers not only a hope that global warming and environmental catastrophe can be averted, but that human reason can be our guiding star. He is one of the rare and vital people in the world today. He has given his life for others, not for personal gain. In a world deluged by self-centred motivations, Aubrey's efforts stand out as a beckoning call in the right direction.

Aubrey has evidenced outstanding intelligence and patience in advancing the concept of Contraction and Convergence during the history of the United Nations Framework Convention on Climate Change (UN-FCCC) negotiations. His patient efforts have been rewarded because many governments in the world today have accepted the concept of Contraction and Convergence as the only equitable response mechanism to the threat of climate change. Without equity considerations as devised in Contraction and Convergence, the Climate Change Convention and the Kyoto Protocol will remain un-implementable and leave all people on earth facing the devastating effects of climate change.

We in South Africa are aware that although the major industrial nations are causing the greatest air pollution, our own country needs comprehensively and urgently to reform its power generation and energy use systems. Aubrey is a South African by origin, and we would hope that if he should be successful in achieving the 2003 Sasakawa Prize, this would help bring a new awareness to our country about contraction and Convergence, and to the world of the threat of global warming to Africa's lands and peoples.

We wholeheartedly support Aubrey Meyer's nomination for the 2003 Sasakawa Prize.

Yours faithfully

Prof. James M. Phelps  
Chairman  
Zululand Environmental Alliance (ZEAL)





## **The Sassakawa Prize, 2003**

Citation of: -

**Aubrey Meyer,  
Global Commons Institute,**

By: -

Roger Doudna  
Findhorn Community  
Scotland  
26/05/2003

We at Findhorn have been keenly aware of Aubrey Meyer's "Contraction and Convergence" (C&C) proposals. Noting the growing support for them for some years, last Easter we asked him to come here and speak at our 'Restore the Earth' conference.

Compelling integration is what his presentation revealed - how to unify and conceptualise an international programme for the avoidance of the greenhouse gas emissions that are causing global climate to change. With C&C he has done this. He has created a well focused, inclusive - and indeed beautiful - language of principles and practice, and demonstrates this language with images and messages that are clarifying, eclectic, universal and extraordinarily powerful. Perhaps because he is a violinist and composer, he also communicates this as an artist - with insight, integrity and compassion.

His proposal unites the diverse aspects of the climate change problem into the flexible but constitutional simplicity of the C&C solution. This is the great strength of C&C; - shaping adversarial detail into a precautionary, cooperative and enabling rights-based whole. It is wholly numerate and counted into an arrangement founded on precaution and equity. Consequently, hopefulness and empowerment replace the despair that is increasingly felt about the faltering present arrangements for avoiding climate change. As Aubrey says, *"this equity in diversity is not just for its own sake; it is also for survival."*

Aubrey has inspired us with this work. He is now the veteran author of, as well as pilgrim for, this approach. Over fifteen years - with conventionally scant resources and against the odds - he has persuaded more and more people of the merits of the C&C approach. As we are increasingly anxious about the enormity and global complexity of the climate change dilemma, we are grateful that he is being increasingly successful at getting the attention, acceptance and support for C&C from all over the world from ordinary and powerful people in a great diversity of institutions, disciplines and cultures.

We commend him and his work to you to be honoured with your award.

**Martin Wright** talks to the composer turned climate campaigner **Aubrey Meyer**, the man behind Contraction and Convergence.

# Diminuendo

Most mavericks who plan global salvation from the upstairs room of a small terraced house in Walthamstow can reliably be written off as two bricks short of a load.

Not so Aubrey Meyer. A classical musician with a head for maths, he might easily be dismissed as the last of the gentleman amateurs, if he hadn't gradually built up a vast swell of support for his disarmingly simple plan to tackle climate change. Its converts include such unlikely bedfellows as Jacques Chirac, the archbishop of Canterbury and the government of China, and it's increasingly being seen as the much-needed 'Plan B' to succeed (or even rescue) the struggling Kyoto protocol.

All this, despite just about the ugliest name in the environmental lexicon. In a field rich in silky smooth soundbites – think Climate Care, Future Forests, Clear Skies – Aubrey has come up with... Contraction and Convergence. Not so much a clarion call to save the planet, as a rather technical description of giving birth to twins....

"Yes, and immediately I suggested it, everyone I knew said: 'Don't call it that, for

god's sake! It'll just kill it stone dead!' But the great advantage is that it does *exactly* what it says on the tin...." Which is the singular virtue of 'C&C', as it's known to its burgeoning array of fans. What it lacks as a soundbite, it more than makes up in beguiling simplicity. Like any great idea, it's tailor-made for an elevator pitch: you really can explain its essence in seconds.

So here goes: we need to cut carbon emissions to a level consistent with a liveable climate. That's the contraction bit. The fairest way to do this, and the one most likely to win the necessary support worldwide, is gradually to converge the amounts which people are allowed to emit, until every citizen of the world has an equal share.

In practice, that means we need to agree on a sustainable level of carbon in the atmosphere (around 450 parts per million by volume is the ceiling most commonly quoted), and a date by which we need to reach and hold that total (2050, maybe). Then we set national emissions ceilings according to population, so as to meet that goal on the basis of 'equal shares for all'.

It's as simple, and as challenging, as that.

There are some devils in the detail (what do you do about Trinidad – tiny population, but thanks to its oil industry, absurdly huge per capita emissions?), but nothing which can't be satisfactorily fudged. (You allocate by region, not state – so Trinidad's discrepancy could, for example, be swallowed up by an Africa-Caribbean group.)

The subtle beauty of C&C is the way it neatly addresses some of the squelchiest sticking points in the whole Kyoto process. For starters, it actually sets a specific, global goal on the basis of climate science – rather than relying on national carbon reduction targets which owe as much to diplomatic expediency as hard logic.

By bringing all countries into the equation, it deals with America's concerns that booming developing nations such as India and China have no incentive under Kyoto to curb their own carbon. By supporting full international emissions trading, it allows countries to reach their goals flexibly and at least cost. It encourages them to keep making cuts way beyond any agreed targets, since that will give them more carbon permits to sell – or fewer to



*“I really wanted to write music; I got a real thrill from that. In one sense, I loathe doing this work....”*



buy. Finally, by insisting on equity, it addresses the third world's objection to paying for the sins of the rich.

It's this one-plan-fits-all approach which has won C&C such eclectic support. The European Parliament has voiced its approval, so has the Red Cross, the Lib Dems, and the Royal Commission on Environmental Pollution. Some in business, too, are friendly: Adair Turner, ex-head of

*“The discipline of C&C is right on the surface – the beauty, the ingenuity, is all hidden.”*

the CBI, now with Merrill Lynch, is a fan. The insurance industry is interested, and even some of the oil companies, claims Meyer, have made privately appreciative noises.

The government remains wary, although Tony Blair has cautiously praised its “intuitive appeal”. Michael Meacher, by contrast, when still environment minister,

was unequivocal: “If ever there was an initiative that deserved support... it is this brilliant and relentless campaign waged by this fiercely independent, creative and apparently quite tireless individual.”

After over three hours in Aubrey's front room, I can vouch for the ‘tireless’. The man's just back from the States, but any traces of jet lag are swept away in a rolling wave of loquacious, almost intimidatingly erudite passion. C&C might be a tightly focused scheme, but its author's conversation ranges wide and wild across philosophy, maths, politics, music.... A typical stream-of-consciousness might kick off with the nuances of climate politics, only to meander enthusiastically, if a little bafflingly, through yoga, Bach, Cantorian brackets and the musical stones of ancient China. He's not averse to picking up his viola, which looks suddenly tiny and fragile in his hefty paw, and plucking out fragments of a scale to illustrate a point.

In public, he's the director of the Global Commons Institute. But don't let that fool you into thinking he's serviced by an office full of support staff – or constrained by the spin-sensitive caution of most NGOs.

Aubrey is a soloist, and that ‘fierce independence’ so admired by Meacher is borne out by some unlikely sympathy for Washington's stance on Kyoto. “The deepest irony in the whole debate is that the US said from the word *go* that this *had* to be a worldwide agreement [and hence involve commitments from India and China]. But they were trashed by the NGOs just for saying that a global problem needs a global solution; that if we act unilaterally it won't solve the problem. And we said: ‘You're absolutely right! Those are rhetorical, posturing protest arguments by people who want to be green, but don't think through the structural consequences of what they're saying.’”

This is not a man desperate to ingratiate himself with what might be thought of as his natural allies. But Meyer is blessed with an outsider's take on it all. Born in Bradford in 1947, he was brought up in South Africa, remaining more or less untroubled by the injustices of apartheid until he went to study music at the University of Cape Town. “I might have been ignorant of the situation before,” he explains, in a soft, precise South African lilt

network photographers

mellowed by 20 years in London. “But you couldn’t exactly avoid it when the police turned up on campus with their truncheons and their guns, and started baton charging you. I wasn’t deeply involved, but I had friends who were, and just by associating with them, I too became a threatened species.”

Increasingly uneasy at the situation, he used music as a means of escaping military service, playing viola in orchestras in Europe, before returning to Cape Town in the mid-70s. There he shaped a living out of composing, playing and conducting, before apartheid’s realities came too close to home to ignore. Having befriended the (black) caretaker of his block of flats, he was horrified when the man was arrested on trumped-up charges of child abuse. He managed to have him freed, but “I realised then I had to either become really committed in the struggle, or get out. I got out.”

So it was back to Europe, to a life of conducting, composing, “to being paid for doing something I completely loved!” – and suddenly his face lights up, animation courses through him, more than at any other time in the interview... “I was writing ballets, I had royalty cheques landing on the doormat – it was like money for jam!”

And then, one day in the late 80s, he was casting around for a subject for another ballet. He thought about Mandela, but by chance hit on Chico Mendes, the Brazilian rubber-tapper-turned-activist, murdered by ranchers intent on converting his rainforest home into pasture. Intrigued, Meyer started reading around issues that had scarcely touched him before – “and within three to four weeks, I was completely overwhelmed.”

The era’s wider surge of environmental concern trickled down to his four-year old daughter too. “I was putting her to bed one night, and out of the blue she asked: ‘Daddy, is the planet really dying?’ So I said: ‘I don’t think so, darling, but Daddy’ll find out, and if it is, I’ll put it right.’

And I thought, never in my youth, never in anybody’s youth, has a kid ever had to ask a question like that.”

It was epiphany. “The penny went through the slot very hard in one go. I thought: ‘You ran away from it last time – where do you run to now?’” And suddenly music seemed completely pointless. I sold my viola, I sold my scores; for a while I just stopped playing completely.” He threw himself into the Green Party and Greenpeace, devoured *The Ecologist* and books like Jonathon Porritt’s *Seeing Green*, and started work on a scheme called ‘Equity and Survival’ – the precursor of C&C.

It’s tempting to cast this as a mid-life crisis: a comfortable man in his early 40s seeking to recapture the energy and edge of youth. Not a bit of it, says Meyer. “I really wanted to write music; I got a real thrill from that. In one sense, I loathe doing this work....”

Since that burst of self-denial, he has taken up the viola again. Now, you can imagine a musician passionate about the environment using his art to touch people’s hearts – yet Aubrey spends most of his waking hours wrestling with the complexities of carbon diplomacy and the intricate maths of C&C. Don’t the constraints, the discipline of all that, chafe against his creativity?

“Well music may be all beauty on the surface, but it’s all about discipline underneath.” He picks up the viola, plucks two notes, an octave apart. “Music is very mathematical. An octave is a precise doubling – if it wasn’t, you’d hear it as out of tune.... The discipline of C&C is right on the surface – the beauty, the ingenuity is all hidden. But it’s there.”

Meyer’s not without his critics. Some warn that C&C could turn people off by equating strategies to tackle climate change with sacrifice and denial. Others are sceptical of the insistence on equal carbon quotas, arguing that this obsession with equity could in practice do little to improve the lot of the poorest, and instead detract from more creative, dynamic efforts to shift to a low carbon economy.

Well, life is all about living within limits, responds Meyer – and so, come to that, is music. “There’s an almost childish fear of being constrained by supposed lost opportunities – that unless you allow unlimited growth, you’re somehow missing out. It’s nonsense.”

He acknowledges that there’s an element of political persuasion for the South in the convergence element, but adds that this isn’t some kind of redistributive agenda: “It’s only entitlements; we’ll go on having emission rates that are different – that’s what the trading is for....” And convergence could win votes, too – especially if embodied in personal carbon budgets, as envisaged in the Domestic Tradeable Quotas bill [see GF49, p30].

“You’ll get paid for going by bike instead of by car. You’ll get paid for doing nothing, or doing less, or doing it differently.” Just as a small fraction of the populace owns most of the wealth, so the majority probably emit less than their ‘fair’ share of carbon. “So you won’t hit them with a carbon tax, you’ll be giving them a climate dividend! And that has to be an election winner!”

But there’s still a strong moral argument for the equitable element of C&C – and as global inequalities grow, argues Meyer, it’s increasingly in our own interest to respond to it. “In economic terms, the last 50 years have actually been about ‘expansion and divergence’. Overall, we’re richer, but the majority have got poorer. We can’t keep doing that road. Even without climate change, that’s a social explosion waiting to happen – and one that will see a lot more mothers call their kids ‘Osama’....”

“Angels are weeping; we’ve got to get in there, and do whatever it takes.”

Martin Wright is editor-in-chief of *Green Futures*.

## Climate change politics

**GCI's Meyer looks ahead**

*The last time Argus interviewed Aubrey Meyer, head of the London-based environmental think-tank the Global Commons Institute (GCI), the Kyoto protocol looked unlikely to come into force and the EU had yet to pass its emissions trading scheme (ETS) into law (AGE, August 2003, pp12-13). Now, times have changed and a new urgency has entered the world of emissions mitigation. Edited highlights of an interview follow with the respected pioneer and populariser of the concept of contraction and convergence (C&C):*

**Were you surprised by the speed of Russia's ratification of the Kyoto protocol this year?**

I was surprised it took so long. However, the Russians seem now to have accepted that to protect the economy, global climate must be protected from the emissions that are changing it. A lesson for President Bush here, one feels.

**Do you think the protocol will actually deliver any emissions cuts, or is it more of a gesture?**

The Russian economy and emissions contracted sharply at the end of the cold war. In the context of industrial country emissions, the balance of emissions permits issued under the Kyoto protocol partly redresses that, so it is more than a mere gesture. However, in the global picture, Kyoto is insufficient and also constitutionally formless. As such, it is an inadequate basis for a future and sufficient agreement.

**What do you think would be the best kind of climate change agreement after the Kyoto protocol commitment period expires in 2012?**

C&C — which is a global, full-term constitutional framework derived from the objective of the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC's objective is a safe and stable greenhouse gas concentration level in the atmosphere and its principles are precaution and equity. C&C embodies these in an equal rights-based negotiating framework of emissions permits that, subject to the agreement, are tradable. This is the necessary template.

**What kind of support has C&C picked up recently?**

Support picks up steadily. In the last year key academic and faith-based institutions such as the German Advisory Council on Global Change and the Church of England have come out in support. Perhaps most interesting was the UNFCCC secretariat which said at Cop-9 that atmospheric stabilisation inevitably requires contraction and convergence. In a sense this makes them the UNFCCC&C!

**How crucial do you see US participation in any future multilateral climate change agreement?**

Even by refusing Kyoto the US participates. Throughout the

last 15 years, their main demand has been for inclusive global arrangements. Like the US Senate's Byrd Hagel Resolution, C&C creates these. If there is a more inclusive arrangement, now is the time for them to declare it.

**From a corporate angle, firms finally have something to work around with the onset of the EU ETS. What are your views on emissions trading?**

In the absence of a rights-based framework, what started as a well-intentioned attempt to facilitate emissions control sees, as it were, the arrival of some kerb crawlers. This will change. Individual life is short but life itself is a great survivor and so a great teacher. We will get better at this.

**The clean development mechanism (CDM) concept is still controversial to non-government organisations (NGOs), but we are near the first official CDM/JI approvals.****What are your views of the KP flexible mechanisms?**

These are more like bartering resources, emissions trading without the money as well as without the framework.

**What sort of outreach have you managed to achieve with corporations rather than governments or NGOs?**

Not enough. We should do more. Some entities have become involved with corporate 'Carbon Disclosure'. Some have also become entangled with the rather fractal idea of carbon neutrality. GCI proposes the more embracing idea of C&C compliance, especially for commercial entities. This includes demonstrating their willingness to be seen as C&C-compliant in the context of the UNFCCC&C negotiations which are, after all, about carbon enclosure.

**What new initiatives give you hope on the climate change scene?**

The framework of sustainable development is impossible without personal and human development. These are things we have to work for so hope has momentum as well as motive.

**What is contraction and convergence (C&C)?**

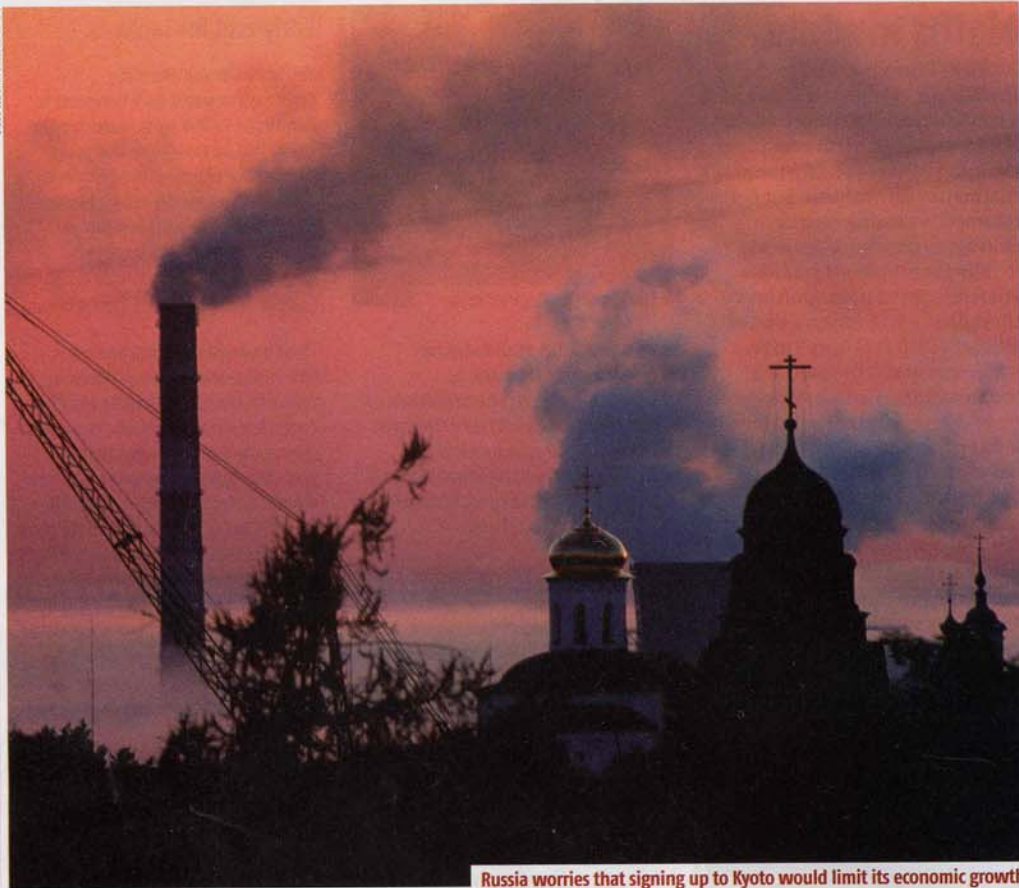
Meyer's C&C idea is based on two main elements as a solution to the global climate change problem. The main overriding principle is equity and "equal rights" for all countries.

- **Contraction:** all governments collectively agree to be bound by a global atmospheric emissions target set at a particular date in the future. This makes it possible to calculate the diminishing or "contracting" amount of greenhouse gases that the world can release for each year.

- **Convergence:** means that the global emissions budget is shared out on a per capita basis, so that every country converges on the same allocation per capita by an agreed date.

- **Markets:** C&C would allow emissions trading, as countries unable to meet their C&C obligations could buy the unused parts of the allocations of other countries.

# This week



Russia worries that signing up to Kyoto would limit its economic growth

**"It is time to get back to first principles. To find a formula to fight the 'dangerous' climate change mentioned at Rio"**

now privately admit that C&C is what we have been waiting for. While Kyoto has become a convoluted, arbitrary and short-term measure to mitigate climate change, C&C could provide a simple, fair, long-term solution. And above all, it is based on science rather than politics.

The "contraction" in C&C is shorthand for reducing the total global output of greenhouse gases. At the Earth Summit in Rio in 1992, the world's governments agreed to act to prevent dangerous climatic change. The Kyoto treaty was their first fumbling attempt to meet that pledge, and if implemented would set emissions targets for industrialised nations for the period 2008 to 2012.

But increasing numbers of delegates are viewing Kyoto as part of the problem, not part of the solution. Its labyrinthine rules allow nations to offset emissions with devices such as carbon-sink projects, and are so complex they are virtually unenforceable. Even if Kyoto becomes international law, it cannot be the blueprint for future deals beyond 2012. A new start is needed.

These delegates argue that it is time to get back to first principles – to find a formula to fight the "dangerous" climate change mentioned in the Rio treaty. And there is an emerging consensus that "dangerous" means any warming in excess of 2 °C above pre-industrial levels; so far temperatures have risen by 0.6 °C.

To keep below the 2 °C ceiling will mean keeping global atmospheric concentrations of carbon dioxide, the most important greenhouse gas, below about 450 parts per million. But because CO<sub>2</sub> and other greenhouse gases linger in the atmosphere for a century or more, staying below that ceiling will mean drastic cuts in emissions over the next 50 years.

The Royal Commission on

## Saving the world, plan B

The treaty designed to halt runaway global warming is in crisis. Is it time to look for a simpler alternative?

FRED PEARCE

THE Kyoto protocol is dying a death of a thousand cuts. Last week, the US reiterated that it wants nothing to do with the sole international agreement designed to save the world from runaway global warming. The European Union, Kyoto's main promoter, revealed that most of its members will not meet their treaty's obligations. And Russia once again seemed to be on the point of wrecking the protocol completely. These blows follow a history of

bureaucratic squabbling and political posturing by the protocol's signatories, and many observers now fear that it has been damaged beyond repair. So does the world have a plan B for bringing the emissions of greenhouse gases under control?

The answer is yes, and it goes by the name "contraction and convergence", or C&C. The idea has been around for a decade, but lately it has been gaining ever more influential converts, such as the UK's Royal Commission on Environmental Pollution, the UN

Environment Programme, the European Parliament and the German Advisory Council on Global Change, which last week released a report supporting the idea. A source within the German delegation in Milan said this week that his government was taking the idea "very seriously indeed". Even observers outside the environmental establishment, such as the World Council of Churches, back the proposal.

For the past two weeks, representatives from around the world have been in Milan, Italy, for COP9, the ninth annual meeting of signatories to the 1992 Framework Convention on Climate Change. Many of them

Environmental Pollution has decided that a 60 per cent cut in global emissions by 2050 is needed, which the British government has adopted as its national target. But if the world is to manage such a transformation, then hard choices will have to be made. And that's where the "convergence" part of C&C comes in.

Industrialised nations have so far done most of the polluting. The US emits 25 times as much CO<sub>2</sub> per head as India, for example, but if pollution is to be rationed, that cannot carry on. So under the C&C proposals, national emissions will converge year by year towards some agreed target based upon each country's population (see Graph). In effect, by a target date that the Royal Commission and Germany's advisory council agree should be 2050, every citizen of the world should have an equal right to pollute.

The average global citizen is responsible for pumping just over a tonne of carbon into the air each year. To prevent dangerous climate change, while allowing for some population increase, the world has to reduce that figure to around 0.3 tonnes per head.

That target is not quite as daunting as it sounds. Emerging technologies for generating energy without burning fossil fuel and for increased energy efficiency suggest it is achievable within a few decades without

## KREMLIN KEEPS EVERYONE GUESSING

THERE is genuine bemusement in Milan about what game Russia is playing over ratifying the Kyoto protocol. Last week, Andrei Illarionov, a leading economic adviser to President Vladimir Putin, said unequivocally that Russia would not ratify it, a comment that appeared to kill the protocol stone dead. Before Kyoto can come into force it must be ratified by countries responsible for at least 55 per cent of the greenhouse emissions from industrialised nations in 1990. So far, the tally has reached 44 per cent. With the US, which is responsible for 36 per cent, and Australia having turned their backs on the deal, only Russia's 17 per cent can get the protocol over the 55 per cent hurdle.

But within 24 hours of Illarionov's statement, deputy economics minister Mukhamed Tsikhonov said Russia was still "moving towards ratification". Nobody knows whether this was the

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result of a turf war in the Kremlin, brinkmanship to secure some unspecified improved terms from the Milan talks, or electioneering ahead of last Sunday's parliamentary elections in Russia.

Optimists predicted that Putin would submit the protocol to the new parliament early next year. But others detected isolationism within the Kremlin, and if they are right it is likely to have been accentuated by the overwhelming victory for Putin's supporters on Sunday and the eclipsing of small, liberal pro-western parties by nationalist groups.

The pessimists fear Putin was not joking when he told a climate sciences conference in Moscow in October that the Russians might like a little more global warming to help them through the Siberian winters. Even if no final *niet* is ever delivered, there is a growing fear that Russian brinkmanship could wreck the protocol for good.

So why might Russia have got cold feet? Illarionov said that the protocol "places significant limitations on the economic growth of Russia". At first sight this seems odd. The country's industrial collapse in the 1990s slashed its emissions, and they are now more than 20 per cent below its Kyoto target. Under the protocol's rules on emissions trading, this ought to leave it plenty of pollution permits to sell to other countries.

But two developments have made this less of an attraction. First, a surge in the Russian economy means it will have far fewer permits to sell than expected. And, suggests Madsen Pirie, president of the London think-tank the Adam Smith Institute, Russia wants to become the world's number-one oil exporter over the next decade, so anything that damages the market for oil, such as limits on greenhouse gas emissions, would be bad for business.

serious damage to the world's economic health. But because some nations will find it harder than others to meet their targets, especially early on, the C&C formula also embraces the idea of countries trading emissions permits. This is already part of the Kyoto formula, but with every nation in the world involved, and with far more stringent targets, it would be a much bigger business.

Many of the politicians and diplomats most intimately involved in negotiating the Kyoto Protocol targets six years ago have emerged as supporters of C&C in Milan. "We should not be fixated on Kyoto but on the climate change problem itself and what comes after Kyoto," said Raul Esatrada, the Argentinian diplomat who chaired the crucial Kyoto negotiations. And that, he says, is likely to mean C&C. The chief climate negotiator for the US under President Clinton, Eileen Claussen, says that "almost any long-term solution will embody a high degree of contraction and convergence." She predicts it will become "an importance force in the negotiation".

On the face of it, C&C seems anathema to countries like the US, which would have to buy large numbers of pollution credits in the early years. But it does meet most of the criticisms made by the Bush administration of the Kyoto protocol. In particular, Bush called it unfair that Asian trading competitors, as developing nations, had no targets. Under

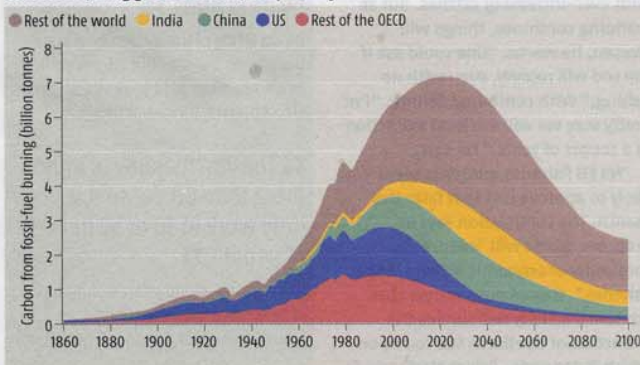
C&C every nation would ultimately have the same target. Some, such as China, already have per-capita emissions in excess of targets they might have to meet by mid-century.

But perhaps the greatest attraction of C&C is the complete break it would make from the horse-trading, short-term fixing and endless complications that have plagued efforts to bring the Kyoto protocol into effect. Last year, the US shocked the world by refusing to ratify the treaty, and just last week the EU, its biggest cheerleader, admitted that only two member states, Sweden and the UK, were on course to meet the targets laid down in 1997.

As business grinds on in Milan, the bureaucratic tangles of the Kyoto protocol are becoming ever more convoluted as nations discuss matters such as whether rubber plantations might, like forests, count as a "carbon sink" for which they can claim credit. Six years after the heady Kyoto night when 171 nations thought they had signed up to save the world, the disconnect between the science and the politics remains huge. ●

### CONTRACTION & CONVERGENCE MODEL

Convergence (universal emissions target per person) achieved by 2050.  
Contraction (falling global emissions) completed by 2100



## Q&amp;A

## Aubrey Meyer: a view from the ‘global commons’

*Aubrey Meyer is the originator of contraction and convergence (C&C) — a “global solution to climate change” radically different from the Kyoto Protocol — and heads up the Global Commons Institute (GCI).*

*Something of a legend in climate change circles, Meyer is a tireless advocate for C&C and a fearless critic of governments and corporations when they appear to ignore the scientific evidence of global warming. C&C advocates a global atmospheric emissions limit with a matching global emissions “contraction budget” and convergence to equal shares per person by agreed dates. Argus interviewed Meyer at GCI’s modest headquarters in London. Edited highlights follow.*

### Can you describe and define what “global commons” means?

It is something common to all. The atmosphere is global and something we all depend on. It has no vertical boundaries and is a perfect mixer of greenhouse gases (GHGs). GCI has proposed its protection by “shared ownership” of the GHG emissions limits necessary to avoid the concentrations and warming being raised too far.

*“The rate of emissions release is like an uncontrolled explosion in slow motion”*

### Is climate change real?

Yes. As we release more GHGs into the atmosphere — the laws of physics being immutable — more heat is trapped by definition. This is changing the climate. The rate of emissions release is like an uncontrolled explosion in slow motion. The “science” arguments are only about the rate and manner at which the heating effect of this is “masked” by various factors.

### So who caused this explosion?

The industrial countries did, since around 1800. The unequal GHG emissions and consumption patterns since industrialisation are now key amongst the factors changing the climate.

### How dangerous do you think the climate change situation actually is?

I think it is very dangerous, and increasingly so because our response is inadequate and random. If emissions continue to accumulate in the atmosphere at the present rate, consequential damage could break the economy within decades. If we warm the atmosphere too far, the whole climate system will react with potentially runaway greenhouse conditions. We need a roadmap to avoid this.

### How did this idea of contraction and convergence (C&C) come to you — you were, after all, a musician?

In 1989, I read about the death of Brazilian social activist Chico Mendez and thought this would be a good subject for a musical. Ranchers clearing the forests murdered him. He was an enigma, but the broader issues were clear and so writing a musical seemed like fiddling while things burned.

About a year later the World Resources Institute (WRI) published a league of polluters. The top five countries were USA, USSR, China, India and Brazil. I was incredulous that the WRI could group those countries together ahead of everyone else. In 1990, the accumulated emissions of the industrial country group alone was around 85pc of the global total. I also compared emissions per capita internationally for that year. My campaigning was focused from then on.

In 1992, the United Nations Framework Convention on Climate Change (UNFCCC) was agreed. Its objective is the restraint of GHG emissions following the principles of precaution and equity. GCI had integrated this formally into C&C by 1996. We added past emissions and a function to project all contraction and convergent emissions futures that stabilise atmospheric GHG concentration at a pre-defined level. This is not predictive or prescriptive. It simply integrates and projects the treaty’s objective and principles in a non-random manner.

#### What is contraction and convergence (C&C)

- **Contraction:** all governments agree to be collectively bound by an upper limit to greenhouse gas (GHG) concentration in the atmosphere. This, subject to a periodic review, makes it possible to calculate the diminishing amount of GHGs that the world can release for each year.
- **Convergence** means that each year’s ration of this global emissions budget is shared out so that every country converges on the same allocation per inhabitant by an agreed date, for example by 2020. It recognises the need for **access rights** to the “global commons” of the atmosphere with the fundamental principle of globally equal rights per person. C&C’s smooth transition makes stable climate possible by choice, rather than just by chance.

#### C&C supporters

- **Developing nations** have warmed to C&C, because under such a system they would have emissions credits to trade. They include a group of African nations, the Non-Aligned Group of Nations, and the governments of India and China.
- C&C has won support from the **European Parliament** and UN environmental experts like Klaus Topfer, Jan Pronk and Raul Estrada Oyuela, former chair of the Kyoto negotiations. France’s President Jacques Chirac has praised the idea, as do many academic and media experts, and environmental groups like **Friends of the Earth**.
- A number of **Church** groups are pushing for C&C to be the cornerstone of a new campaign.



**What's different between a prediction and a projection?**

Prediction and prescription are noisy. Prediction says, "This might happen but then again something else might happen". Prescription says, "Do this because I'm telling you to." A projection just signals, "On these principles, with this end point, the non-random route between here and there projected forward looks like this." This is what C&C does. The principles are constant, no matter what the rates.

**What about critics who say this is just a crazy concept? What makes it a mainstream idea?**

Those who say climate change is not an issue, or one you can do anything about, are the crazy ones. The mainstream has to deal with the imperative of emissions contraction to meet the objective of the UN climate treaty. GCI points out that, by definition, convergence is integral to the contraction. The issue is, do we get C&C going at rates that are effective by chance or by choice, by accident or design?

**How does this differ from the Kyoto Protocol?**

C&C makes possible a global rate of convergence that can be accelerated relative to contraction, and this can be used to resolve the row about the historic accumulation of GHGs in the atmosphere from the industrial countries. More rapid convergence shifts future equity share to the developing countries to settle this "debt". This makes agreement to work together possible. Kyoto avoids this. It delays global contraction and makes convergence random.

**But people say that Kyoto, though flawed, is the best that can be expected...**

Kyoto attempted to bring out leadership from "guilty" countries in the UN treaty. Kyoto-only experts assert that they've created a basis on which we go through to 2100 when GHG concentration will be stabilised. Their claim is to be able to resolve 186 countries' special arguments about why each is the exception during every five-year negotiating period for the next 100 years — while temperature, damage, tempers and panic rise. C&C is the logical continuation of Kyoto or its replacement if it fails. Those proponents of Kyoto who repudiate the C&C framework in favour of perennial Kyoto-style guesswork look silly.

**What about the US? Would it support C&C?**

They do, but may not have spotted it. The Bush administration made stabilising atmospheric GHG concentration a global security issue last year. Together with the Byrd-Hagel resolution, this is C&C by definition. Technology is crucial, but the C&C roadmap to deliver this stabilisation is indispensable for global success.

**What are your relations with the EU?**

Good. The EU makes an effort to reduce emissions and

create institutional arrangements supporting this. They are seen doing this in front of the rest of the world and they see the logic of C&C.

**What are your views on the UK government's energy white paper policy document?**

When prime minister Tony Blair introduced the white paper, he said the need to avoid mass destruction from climate change required what he called a "climate covenant" between all nations. He correctly sourced his commitment to a 60pc cut in carbon dioxide emissions by 2050 to the Royal Commission on Environmental Pollution. But the commission's report to government made C&C the key recommendation. Blair didn't acknowledge that the 60pc was a function of C&C. This created the impression that Blair's 60pc was plucked from thin air. He followed bad advice on this point.

**What about the EU emissions trading scheme (ETS)?**

If it leads to trade under conditions of C&C, it has promise.

The danger is emissions trading becoming a law unto itself, progressively delinked from the problem we are trying to solve. Already there are more people waiting to sell emissions credits than willing buyers. This is trouble.

**And the UK ETS?**

These are just early days, but we must keep focused on why the trading of emissions permits exists. It is to avoid dangerous rates of climate change, not to avoid responsibility for causing climate change. The smart traders are those who realise the biggest money is going to be made when you don't just demonstrate avoided emissions, you demonstrate that emissions never happened because permits are redeemed against emissions free technology.

**What about Clean Development Mechanisms (CDMs)?**

Like Kyoto, the CDM is more symbolic than structural. It plucks numbers from thin air, which is what some non-governmental organisations call "hot air".

**Can you talk about your interface with big capital, and the multinational companies?**

Businesses, especially in energy, want to proceed in a responsible way, but they are in difficulty for lack of a road map. Long-term investments have to be secure, and in the absence of a road map there is uncertainty. People are nervous of doing what they know is necessary.

Banks and insurance companies know we need a habitable planet to have an economy. At present rates of damage increase from climate change, huge swathes of equity will become uninsurable as the risks become too big to carry. Some have already called for C&C as it creates a roadmap for security and prosperity. They have to underwrite the present system but also have the clout to force C&C. It is only a matter of time.

*"Businesses, especially in energy, want to proceed in a responsible way, but they are in difficulty for lack of a road map"*

January/February 2005

Aubrey Meyer and David Crichton

## **“Contraction and Convergence”: What is it and why is it important?**

The disastrous tsunami on Boxing Day, 2004, may only be the start of a series of major disasters. It is widely recognised now that climate change will lead to increasingly severe weather conditions around the planet, particularly in the form of water related disasters. A recent UN report stated: over 90% of all deaths from natural disasters are water related, and 99% of deaths from flood from 1975 to 2001 (over 250,000 people) were from low income groups. In the richer countries, total disaster losses are less than 2% of GDP, while in poor countries the figure is nearly 14% from 1985 to 1999.

### **Could climate change cause more tsunamis?**

Climate change could even increase the number and severity of tsunami disasters. It is argued that glacial ice melt will add so much more water to the oceans, that the added weight will create new stresses on fissures in the sea bed which could trigger underwater landslides and volcanoes. Even if this does not happen, the fact that sea levels are rising sharply cannot be ignored and this means that natural and man made coastal defences are more likely to be overtopped by tsunami or storm events. Climate change is now generally considered by the world's top scientists to be the result of human induced greenhouse gas emissions, hence the Kyoto Protocol which is designed to reduce such emissions and which is due to come into force on the 16th February 2005. While it is a start, Kyoto is really is too little too late. With Britain holding the presidency of the G8 countries this year, Tony Blair has expressed the intention to put climate change at the top of the agenda, and the House of Commons Environmental Audit Committee are currently taking evidence on the issue of: “The International Challenge of Climate Change: UK Leadership in the G8 and EU”.

### **After Kyoto?**

One of the burning issues will be “What happens after Kyoto?” A highly favoured contender is the concept of “Contraction and Convergence” developed by Aubrey Meyer of the Global Commons Institute

The plan is now at the core of the UN Framework Convention on Climate Change, has been approved by the European Parliament and many other governments, and in July 2004 even received divine backing from the Church of England. The proposal might be considered radical – to reduce greenhouse gas emissions per person around the world to a safe level within a few decades- but climate change is such a big threat that urgent and serious action is needed. The authors of the Chartered Insurance Institute report on climate change were in no doubt of this when they said in 2001, “the most realistic way to bring about the required reduction in GHG emissions ... is that proposed in the concept of Contraction and Convergence.” Far sighted insurance companies would be well advised to become familiar with this concept, which could have a major impact on their businesses over the next 20 years.

The first assessment report of the Intergovernmental Panel on Climate Change (IPCC) was published in 1990 and recognised that cuts in the emissions of greenhouse gases (GHGs) in the order of 60% to 80% would be necessary to halt the increase in their concentrations in the atmosphere. With fast growing economies around the world, especially in countries like China and India, Western countries are faced with the problem of having to reduce their carbon emissions by even more than 60% to prevent runaway climate change. To make matters worse, some developed countries such as the USA and Australia appear to have little intention of curbing their growth in carbon emissions, while others seem to have adopted a delaying tactic called the “FROG” approach, namely “First raise our growth”.

C&C is the only solution which is consistent with the principle that is enshrined in the United Nations Charter that everybody is born equal. If you carry this through to its logical conclusion, it means that everybody in the world should have equal rights to enjoy the benefits of modern technology. It also means that generations still to be born should have equal rights as those living today. C&C proposes that developing countries be allowed to grow their emissions while developed countries contract theirs until the figures converge at some agreed per capita level.

This may seem a bit utopian to some, but recently, the Archbishop of Canterbury said that C&C "...appears utopian only if we refuse to contemplate the alternatives honestly." In any case it appears unreasonable for anyone to argue that an American has a greater right to pollute the planet with GHGs than someone from China or India.

Carbon dioxide concentration in the atmosphere is now 40% above pre industrial levels and the rate of increase is growing every year. The Royal Commission on Environmental Pollution's report in 2000 made only one recommendation, namely that the UK government should press for a future global climate agreement based on the contraction and convergence approach, combined with international trading in emission permits.

This approach is consistent with the 1987 the Brundtland Report, also known as Our Common Future, which first alerted the world to the urgency of making progress toward economic development that could be sustained without depleting natural resources or harming the environment. Published by an international group of politicians, civil servants and experts on the environment and development, the report provided a key statement on sustainable development, defining it as:

'[Development that] meets the needs of the present without compromising the ability of future generations to meet their own needs.'

The Brundtland Report focused primarily on the needs and interests of humans, and was concerned with securing a global equity for future generations by redistributing resources towards poorer nations to encourage their economic growth. It was the wish of the Report that all human beings should be able to achieve their basic needs. The Report also suggested that social equity, economic growth and environmental maintenance are simultaneously possible and that each nation is capable of achieving its full economic potential whilst at the same time enhancing its resource base. However, it recognised that achieving this equity and sustainable growth would require technological and social change.

Note that applying environmental and sustainable limits on human activities need not result in limits on economic growth, it simply means that new solutions must be found. For the insurance industry this could have many implications:

### **Renewable energy**

In order to maintain economic growth, there would be much greater pressure to find cheap energy sources that do not rely on fossil fuels.

The trading permit system in the Kyoto protocol would be expanded, and more renewable energy will create the need for new insurance and hedging products such as wind guarantees for wind and wave power and crop guarantees for biomass. Insurers could encourage the use of bio fuels such as ethanol for vehicles and aircraft. New technology means that ethanol can now be produced from any form of organic waste, even waste paper, at a cost of a few pence per litre. Such fuels are much safer than petrol or hydrogen fuel cells, do not cause pollution of watercourses, and release no more carbon than is absorbed during the growing process.

### **Natural disasters**

In less developed countries, insurers can have an important role in helping to protect the livelihoods of people at risk, by providing affordable micro insurance for items such as fishing boats, sewing machines and tools so that people can get back to work quickly after a disaster. There is also a need for insurance of infrastructure such as roads and bridges to help people recover from disasters quickly without depending on charitable handouts. Such insurance would be very risky however unless there were signs that something was being done about climate change. If C&C were to be adopted globally it could ultimately help to create a more stable situation which would make insurance less of a gamble.

The war on terrorism is insignificant compared to the war the human race is currently waging on terra, our home, and the only planet we have. Insurers and banks need to take action to persuade society to adopt effective strategies such as C&C to cope with the threats this planet faces. After all they are going to be in the front line when climate change impacts really start to bite.

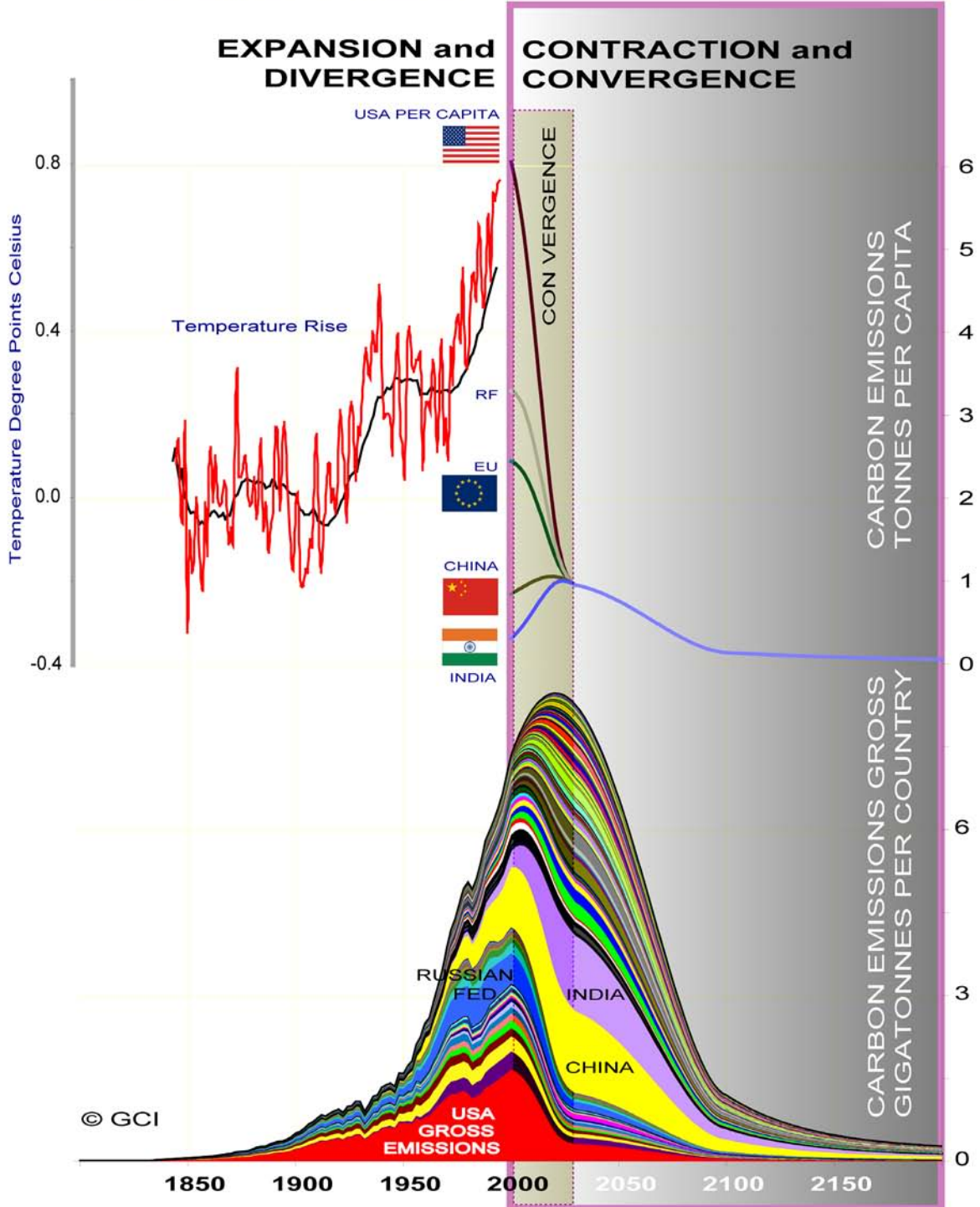
Over 200 financial institutions around the world have already indicated their agreement that the position is serious and that they should be taking action on the environment. They have signed up to the UN Environment Programme's statement of environmental commitment. A full list of the signatories appears at [www.unepfi.org](http://www.unepfi.org). If your company is not on the list, perhaps a good start would be for you to ask someone in your company "Why?"

For more details of C&C, check the website of the Global Commons Institute at [www.gci.org.uk](http://www.gci.org.uk)

Aubrey Meyer is the originator of "Contraction and Convergence" and the head of GCI.

David Crichton is visiting professor at the Belfield Grieg Hazard REsearch centre at UCL, and a fellow of the Chartered Insurance Institute

280 parts per million atmosphere CO<sub>2</sub> . . . . . 380 ppm . . . . . 450 ppm [stable] 450 ppm





## **The 2004 Liveable City Awards**

*The Climate Change Champion's Award to*

*Aubrey Meyer, Esq.*

In recognition of an outstanding personal contribution to combating climate change at an international level through his efforts to enhance the understanding and adoption of the principle of Contraction and Convergence.

A handwritten signature in blue ink, reading "Michael Berry Savory", written over a horizontal line.

Alderman Michael Berry Savory  
The Rt. Hon. The Lord Mayor of the City of  
London



## LIVEABLE CITY AWARDS 2005

17<sup>TH</sup> FEBRUARY 2005

- ❖ **On the day that the Kyoto Protocol comes into effect, Meyer's work on Climate Change is recognised with Lifetime Achievement Award**

In an awards ceremony at Mansion House, hosted by leading environmentalist Jonathon Porritt, The London Borough of Enfield was today named winner of the Corporation of London's Liveable City Awards 2005. The awards, open to the City's financial community and to businesses and organisations across the UK, were established by the Corporation to promote and recognise the best in sustainable business practices.



On the day that the Kyoto Protocol came in effect, a Lifetime Achievement Award was made to Aubrey Meyer for his contributions to tackling climate change. Aubrey, author of influential book "Contraction and Convergence - the Global Solution to Climate Change", is widely recognised as providing a global framework within which to resolve policies and measures to avert climate change.

Receiving his award Aubrey Meyer commented;

*"I made the effort to establish Contraction and Convergence (C&C) because a fully international agreement to avert climate change is urgently needed. It is encouraging that C&C now gathers increasing international support. To discover there are people who also feel this effort deserves acknowledgement, is reward in itself."*

*"However, the Liveable City Award is a very welcome surprise as many eminent people were in this competition. I am grateful to them and the Corporation of London for all their efforts, and ask that we all advocate C&C together."*

He won the award in a poll, conducted by climate change company Future Forests, of MPs, FTSE 250 Chairman/CEO's, NGO's and environmental media representatives.

### **Judges**

The final judging panel consisted of:

- Rob Bell, editor, *Environment Business Magazine*
- John Gummer, MP
- Deputy Peter Holland, deputy chairman, Bridge House Trust
- Ram Gidoomal, chairman, London Sustainability Exchange



# 'Contraction & Convergence' [C&C]

1. C&C is the science-based, global climate-policy framework, proposed to the United Nations since 1990 by the Global Commons Institute (GCI).
2. The objective of safe and stable greenhouse gas concentrations in the atmosphere and the principles of precaution and equity, as already agreed in the "United Nations Framework Convention of Climate Change" (UNFCCC), provide the formal calculating basis of the C&C framework that proposes: -
  - A full-term contraction budget for global emissions consistent with stabilising atmospheric concentrations of greenhouse gases (GHGs) at a pre-agreed concentration maximum deemed to be safe, following IPCC WG1 carbon cycle modelling.
  - The international sharing of this budget as 'entitlements' results from a negotiable rate of linear convergence to equal shares per person globally by an agreed date within the timeline of the full-term contraction/concentration agreement.
  - Negotiations for this at the UNFCCC should occur between regions of the world, leaving negotiations between countries within their respective regions, such as the European Union, the Africa Union, the US, etc. The inter-regional, inter-national and intra-national tradability of these entitlements in a currency such as International Energy Backed Currency Units [EBCUs] is appropriate.
  - Scientific understanding of the relationship between an emissions-free economy and concentrations develops, so rates of C&C can evolve under periodic revision.

C&C is science-guided, rights-based, simple and easy to understand. It turns problem into solution. It answers, [1] the US demand for all-country inclusion, [2] the developing country demand for equity over emissions historically accumulated in the atmosphere and [3] the emissions-trading prerequisite of capping. It turns argument into agreement and the certainty of principle into practice.

I made the effort to establish C&C because it is needed, and C&C now has much international support. To discover there are people who also feel this effort deserves acknowledgement, is reward in itself, but the City of London's award is a welcome surprise as many eminent people were in this competition. I am grateful to them and the City of London for all their efforts and suggest we all advocate C&C together.

Players in the City's markets control more assets than most governments of the countries of the world. With much to gain, these players also have much to lose. Protection lies in formally establishing C&C-compliance as the basis of the UN Climate Treaty. Collective corporate advocacy of this is needed now.

AUBREY MEYER

**Find out more:** - <http://www.gci.org.uk/briefings/ICE.pdf>

[http://www.gci.org.uk/images/CC\\_Demo\(pc\).exe](http://www.gci.org.uk/images/CC_Demo(pc).exe)

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