



# **“CONTRACTION & CONVERGENCE” [C&C]**

## **A GLOBAL FRAMEWORK for GHG EMISSIONS MANAGEMENT**

GLOBAL COMMONS INSTITUTE <sup>1</sup> and GLOBAL DYNAMICS INSTITUTE <sup>2</sup>

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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).
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. [GCI regards higher than 450 ppmv CO<sub>2</sub> 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 [1] the year 2030 or 2040, or around a third of the way into a 100 year budget, for example, for convergence to complete [see point 5 and the images overleaf] and [2] 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.
  - The inter-regional, inter-national and intra-national tradability of these entitlements in an appropriate currency such as International Energy Backed Currency Units [EBCUs] 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. 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.
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 images].

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6. The UK's Royal Commission on Environmental Pollution<sup>vi</sup> and the German Advisory Council on Global Change<sup>vii</sup> both make their climate change recommendations to governments in terms of formal C&C. Numerous individual and institutional statements supporting C&C have been put on the record.<sup>viii</sup> The Africa Group of Nations formally proposed it to the UNFCCC in 1997.<sup>x</sup> It was agreed in principle at COP-3 Kyoto 1997.<sup>xi</sup> C&C conforms to the requirements of the Byrd Hagel Resolution of the US Senate of that year<sup>xii</sup> and the European Parliament passed a resolution in favour of C&C in 1998.<sup>xiii</sup>

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.

GCI and GDI - accredited to the UNFCCC/IPCC - are comprised of teams of scientists drawn from various institutions in the UK, Italy and elsewhere, working on the science and the sociology of global change.

- i <http://www.gci.org.uk>
- ii <http://www.gci.org.uk/model/dl.html>
- iii [http://www.gci.org.uk/images/CC\\_Demo\(pc\).exe](http://www.gci.org.uk/images/CC_Demo(pc).exe)
- iv [http://www.gci.org.uk/images/C&C\\_Bubbles.pdf](http://www.gci.org.uk/images/C&C_Bubbles.pdf)
- v <http://www.feasta.org>
- vi <http://www.rcep.org.uk/pdf/chp4.pdf>
- vii [http://www.wbgu.de/wbgu\\_sn2003\\_engl.pdf](http://www.wbgu.de/wbgu_sn2003_engl.pdf)
- viii [http://www.gci.org.uk/Archive/1989\\_2004](http://www.gci.org.uk/Archive/1989_2004)
- ix <http://www.gci.org.uk/consolidation/Sasakawa.pdf>
- x <http://www.gci.org.uk/papers/zew.pdf> [appendix C, page 16]
- xi [http://www.gci.org.uk/temp/COP3\\_Transcript.pdf](http://www.gci.org.uk/temp/COP3_Transcript.pdf)
- xii <http://www.gci.org.uk/briefings/C&C&ByrdHagel.pdf>
- xiii [pp 27 - 32] [http://www.gci.org.uk/consolidation/UNFCCC&C\\_A\\_Brief\\_History\\_to1998.pdf](http://www.gci.org.uk/consolidation/UNFCCC&C_A_Brief_History_to1998.pdf)

