

**A response to Challen's C&C letter  
[See end of this document]  
from UK Climate and Energy Minister  
Chris Huhne.**

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**The Rt Hon Chris Huhne MP**  
Secretary of State  
Department of Energy & Climate  
Change  
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SW1A 2AW  
[www.decc.gov.uk](http://www.decc.gov.uk)  
Our ref; P02010/00052iAF

July 2010

Thank you for your letter dated 8 June about Contraction and Convergence (C&C).  
I apologise for the delay in replying.

The Government believes that climate change is one of the gravest threats we face, and that urgent action at home and abroad is required. We are clearly in full agreement about the need for an ambitious global climate deal that will limit emissions and explore the creation of 'new international sources of funding for climate change adaptation and Mitigation.

We consider that the Copenhagen Accord, agreed by a broad cross-section of leaders at the UNFCCC summit in December 2009, represents an important step towards an ambitious global deal. More than 120 countries have associated with the Accord, and over 70 nations accounting for 80% of global emissions have set out the targets and actions they will take to limit emissions in the medium term. The Accord clearly recognises the "need to limit the global average temperature rise to below 2°C and avoid dangerous climate change."

The C&C framework developed by Aubrey Meyer and the Global Commons Institute in many ways offers a compelling vision of a future long-term climate regime, and has a number of distinct benefits. These include:

- Recognition that per capita emissions of developed countries will need to come down significantly over time.
- The establishment of a firm global pathway to limit emissions, with corresponding long-term targets for all countries.
- The development of an approach that many consider to represent a fair and equitable response to climate challenge.

The EU noted in its March 2009 Environment Council Conclusions that, in the long term, gradual convergence of national per capita emissions between developed and developing countries will be necessary if we are to avoid dangerous climate change, taking into account national circumstances.

Countries continue to have strong views about how the long-term global emissions reductions that are required can best be translated into national targets and actions. To be successful the future climate regime will likely need to reflect a balanced range of indicators and will also need to respect national sovereignty. Per capita emissions are an important indicator of a country's responsibility to take action, but there are a number of other important indicators of national circumstances, such as those covering economic capability to act and development needs.

The international debate about how to agree an equitable & effective long-term response to climate change remains highly active and proposals such as C&C will continue to influence and stimulate the international discussions. I therefore welcome the contribution that you and the signatories to your letter are making by high-lighting the benefits of this approach.



CHRIS HUHNE

The reply received contains newly warm words about C&C. However, these are mixed with old ideas on differentiation and unrealistic views of keeping within 2 degrees. It is on-line here: - [www.gci.org.uk/politics.html](http://www.gci.org.uk/politics.html)

'New' from DECC is the openly encouraging form of words about C&C and the thanks to all signatories from Secretary of State for the letter where he says: -

*"I welcome the contribution that you and the signatories to your letter are making by highlighting the benefits of this approach." C&C is also described as, "a compelling vision of a future long-term climate regime, and has a number of distinct benefits. These include: - • Recognition that per capita emissions of developed countries will need to come down significantly over time; • The establishment of a firm global pathway to limit emissions, with corresponding long-term targets for all countries; • The development of an approach that many consider to represent a fair and equitable response to climate challenge."*

These positive words probably represent the attitude of Chris Huhne himself. Along with his party [Liberal Democrat] he has been an advocate for C&C for many years. There is also the familiar 'old' line stating that different national circumstances, responsibilities and capabilities are what the negotiations at the UNFCCC have to deal with. This does reflect the situation that the civil servants at DECC and DEFRA have had to deal with at the UNFCCC, but they: -

[a] appear not yet to recognize that C&C doesn't disagree with them on this and [b] that C&C does provide a way of structuring this obviously unavoidable issue in a UNFCCC-compliant way.

The letter to Chris Huhne requested a public meeting. This has been ignored. It may well be that at least some of the signatories to him will not be happy with this. One has written to me already in this vein saying quite reasonably that a reply specifically to this request is what has been awaited and it has not been provided.

In the round the reply from the Secretary of State portrays residual conflict within the Department of Energy and Climate Change and the Climate Change Committee where regarding C&C, some long-serving civil servants still have a mental model of the negotiations that is essentially building a 'mosaic' in an 'evolutionary' manner. It is from this position they have for many years projected a conflict with C&C.

If so then the tide is turning as the defence of what could still be classed as this 'anti-C&C-influence' increasingly depends on arguments that add up to the mosaic-failure of doing too-little-too-late, or the high-cost of 'UNFCCC-non-compliance'.

The fact is that the objective of the UNFCCC obviously makes UNFCCC-compliance teleological. Given the risks and indeed the high costs of failure, it makes sense for us all to be teleologically guided by that and do the numbers for a global deal that is globally consistent with UNFCCC-compliance. It is a certainty that over time this view will increasingly prevail.

That said the letter from Secretary of State asserts that the Copenhagen Accord is: -

*"an important step towards an ambitious global deal" that adds up to what "the Accord recognizes as the need to limit the global average temperature rise to below 2 degrees and avoid dangerous climate change".*

This reflects what DECC colleagues claim concerning their undoubtedly valiant efforts over 15 years. However, their claim is not credible. The *"medium term targets and actions"* referred to do not even add up to the *"2016 4% low"* scenario on which the Climate Act is based. This is the scenario for which DECC unrealistically gave us only 50:50 odds for not exceeding 2 degrees.

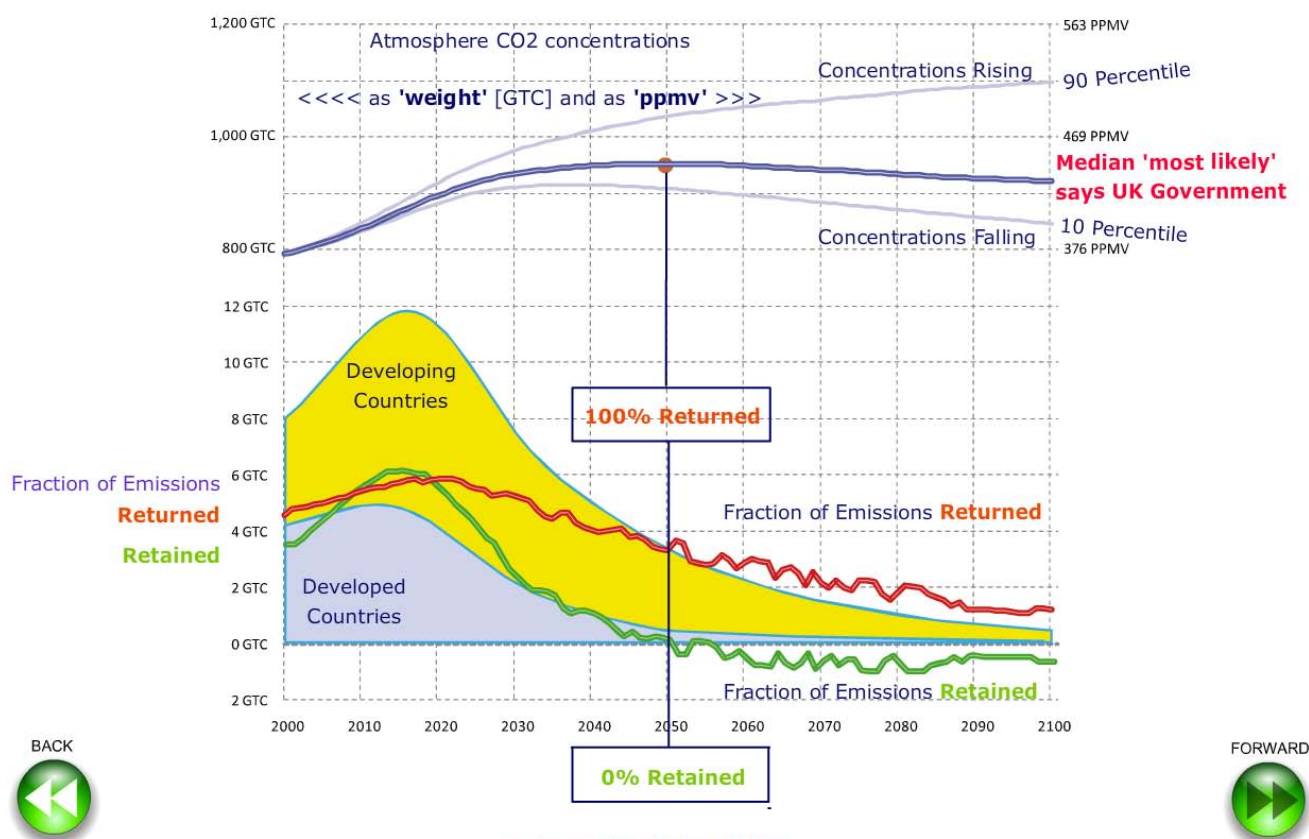
This analysis was done by the Hadley Centre and published last year by the Climate Change Committee [CCC]. It is in this that gains in 'sink-efficiency' to 100% by 2050 - their so-called 'median case' - are projected by the Government as the most likely. This rate of gain in sink-efficiency from less than 50% now to more than 100% within 40 years is unrealistic. With ocean acidification and increased warming, evidence suggests a decline in sink-efficiency and not an increase. An increase on this scale seems wholly improbable and there is no evidence to support this trend. Consequently, the odds of the 'Copenhagen Accord' adding up to less than 2 degrees are even worse. However politically unappealing this may be, it is worth repeating that this claim for not exceeding two degrees is not credible.

All the way through 2009, GCI argued the case about the unrealistic rates of gain in sink-efficiency in the Climate Act in last year's Environmental Audit Committee enquiry into, *"Targets in the Climate Act: where did they come from and were the models on which they were based valid?"* The Met Office indicated their broad agreement only at the end of the enquiry: - [www.gci.org.uk/Documents/GCI\\_EAC.pdf](http://www.gci.org.uk/Documents/GCI_EAC.pdf)

The recent and more detailed animation-analysis of this matter shown here: - [www.gci.org.uk/animations/Sources\\_and\\_Sinks\\_UK\\_Climate\\_Act.swf](http://www.gci.org.uk/animations/Sources_and_Sinks_UK_Climate_Act.swf) or here: - [www.gci.org.uk/animations/Sources\\_and\\_Sinks\\_UK\\_Climate\\_Act.exe](http://www.gci.org.uk/animations/Sources_and_Sinks_UK_Climate_Act.exe)

## Numbers in UK Climate Act & at COP-15

### Contraction-Concentrations: Contraction-Convergence

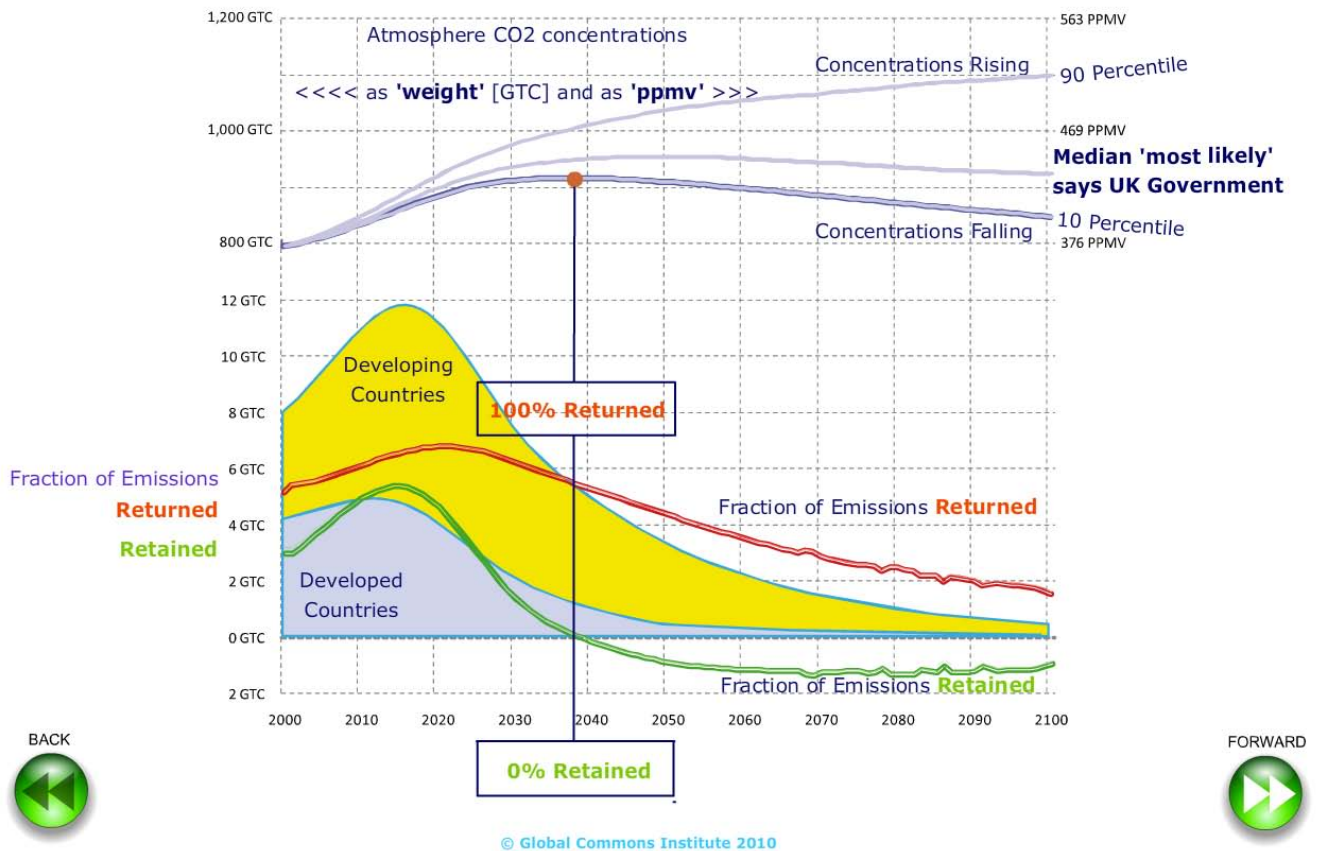
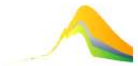


Hadley Centre now say, *"it is not unreasonable that the 'sink efficiency' rises above 100% in scenarios with rapidly declining emissions."* However in their own published assessment of this falling-emissions:falling-concentrations scenario, temperature continues to rise up from 1.78 degrees in 2050 to 2.13 degrees in 2125. So what is claimed as *"not unreasonable"* is that temperature will continue to rise for 75 years after concentrations start falling in 2050. i.e. while emissions are still declining, sink-function *strengthens* as temperature *rises*, breaking the 'radiative forcing' link between concentrations and temperature. This is as 'reasonable' as contrarians who argue the opposite viz that temperature is falling while concentrations are rising!



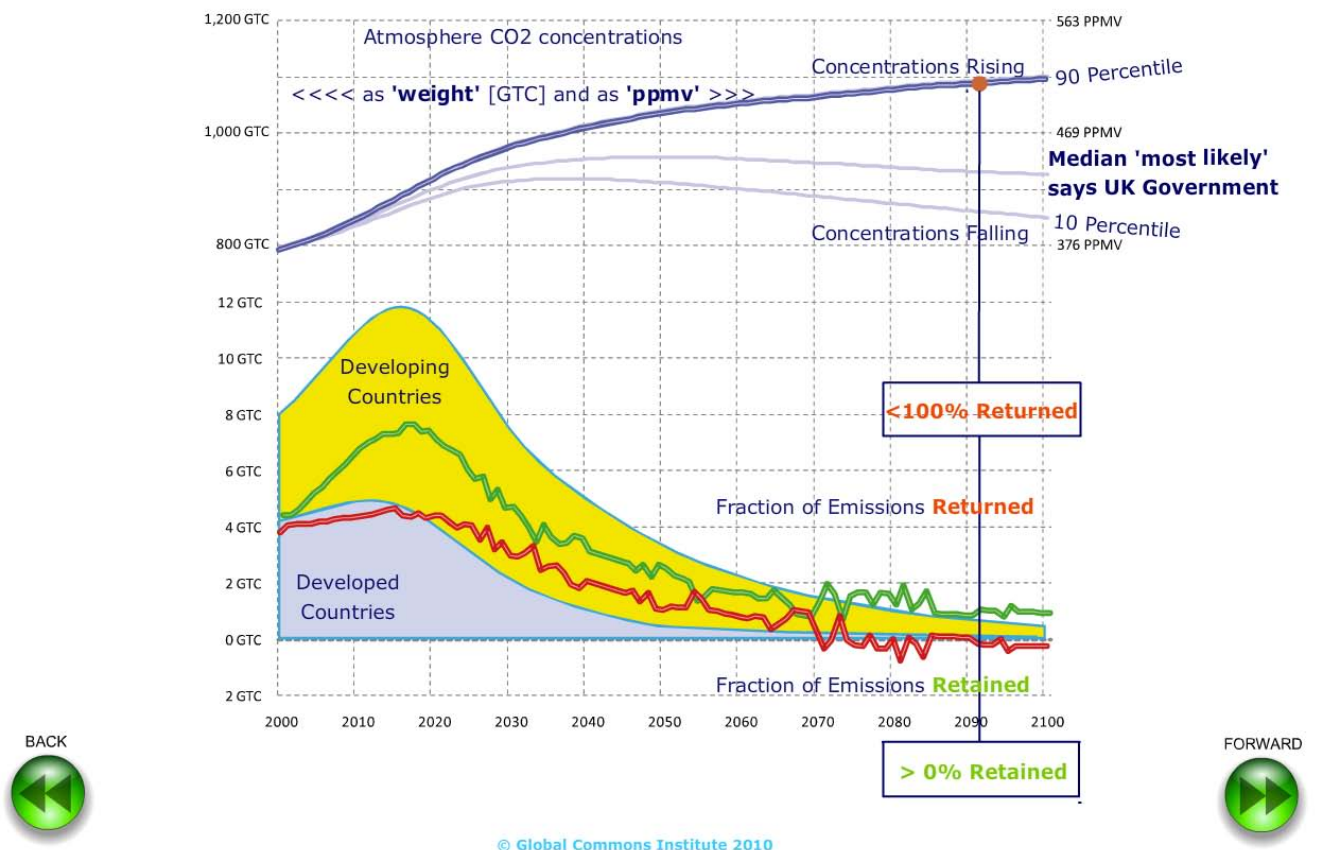
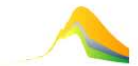
# Numbers in UK Climate Act & at COP-15

## Contraction-Concentrations: Contraction-Convergence



# Numbers in UK Climate Act & at COP-15

## Contraction-Concentrations: Contraction-Convergence



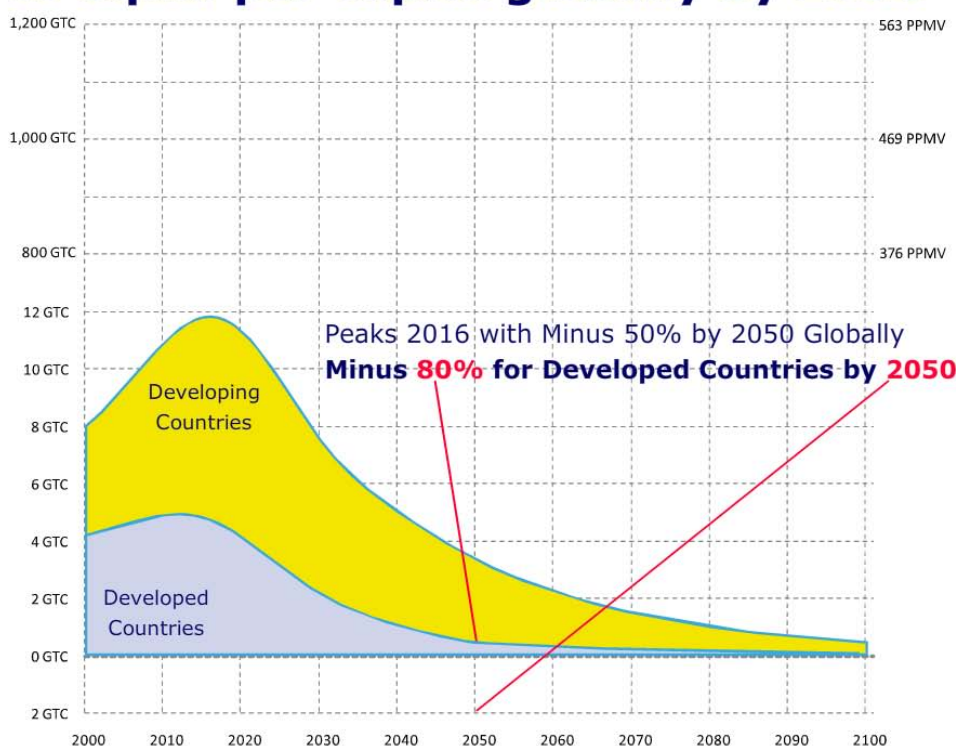
The political problem that attends this remains the predictable lack of focus and clarity in the collective-mind of the 'policy community' inside DECC and beyond.

Chris Huhne's letter talks reasonably about the need for, *"a balanced range of indicators relating to national responsibilities and circumstances, economic capabilities and developments needs."* However, to keep within 2 degrees, we need to get global emissions down to about net-zero within the next 40 years. However, the needs in this *"balanced range of indicators"* are zeroed out for everyone within 40 years so making this indicators-list sacrosanct and the reason for resisting C&C, is error. It results from trying to negotiate contraction, convergence and implementation with a balanced range of indicators *simultaneously*, so the negotiations to achieve the objective of the UNFCCC remain structureless and doomed to continue the failure generated so far.

The way to deal with this from a C&C perspective is straightforward.

1. define a full-term global emissions budget for two degrees at the UN;
2. split this budget in two at the UN so above average and below average converge on the per capita average by negotiated year 'x' noting that, *"the rate of convergence is the main equity lever."*

## Government also says Convergence to equal per capita globally by 2050



BACK



FORWARD



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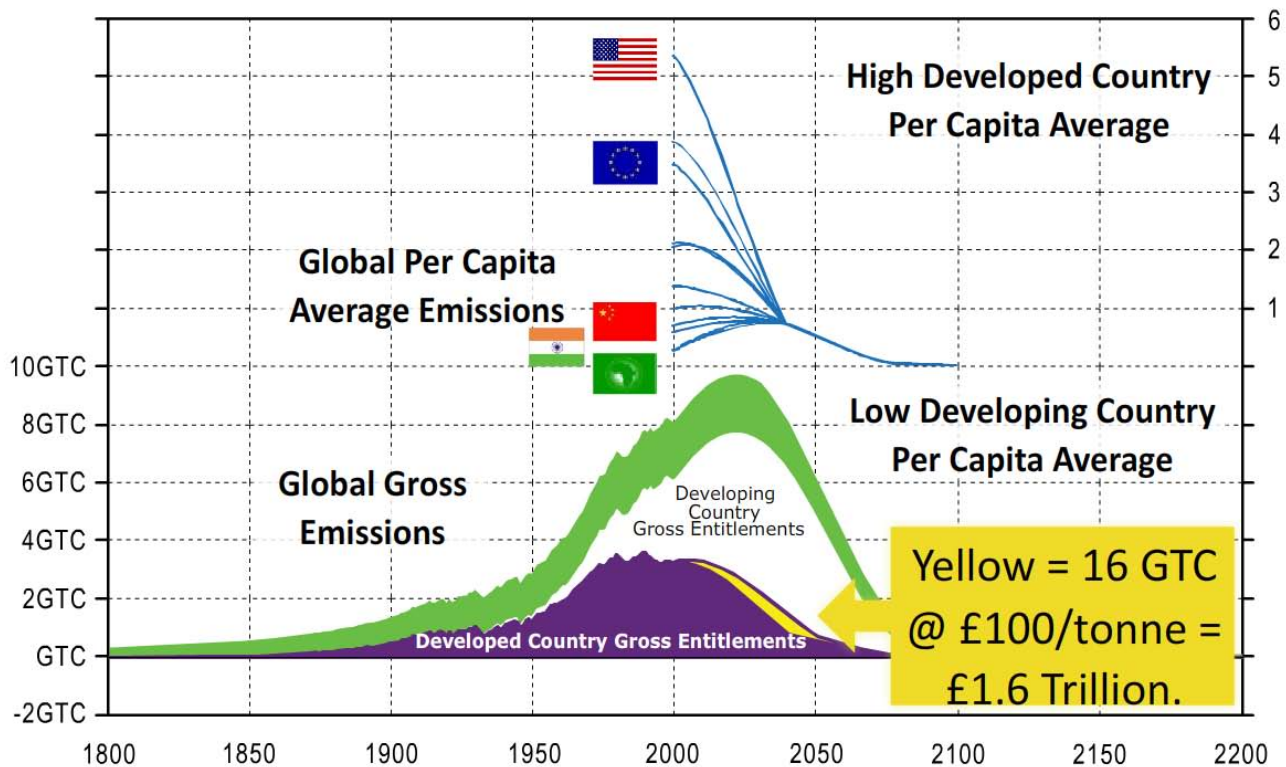
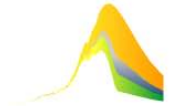
The UK did this in the UK Climate Act but prescribed year 'x' as 2050. They then tried with others to prescribe these rates of C&C to the UN at COP-15. The attempt failed.

The 'global deal' is points 1 & 2. Then, away from the UN, each side negotiates within itself and amongst themselves as to how they share the proceeds of points 1 & 2. This wouldn't prevent exchanges/trading between the two sides, it just can get a realistic global deal for Africa, India and China with 'accelerated convergence' first.

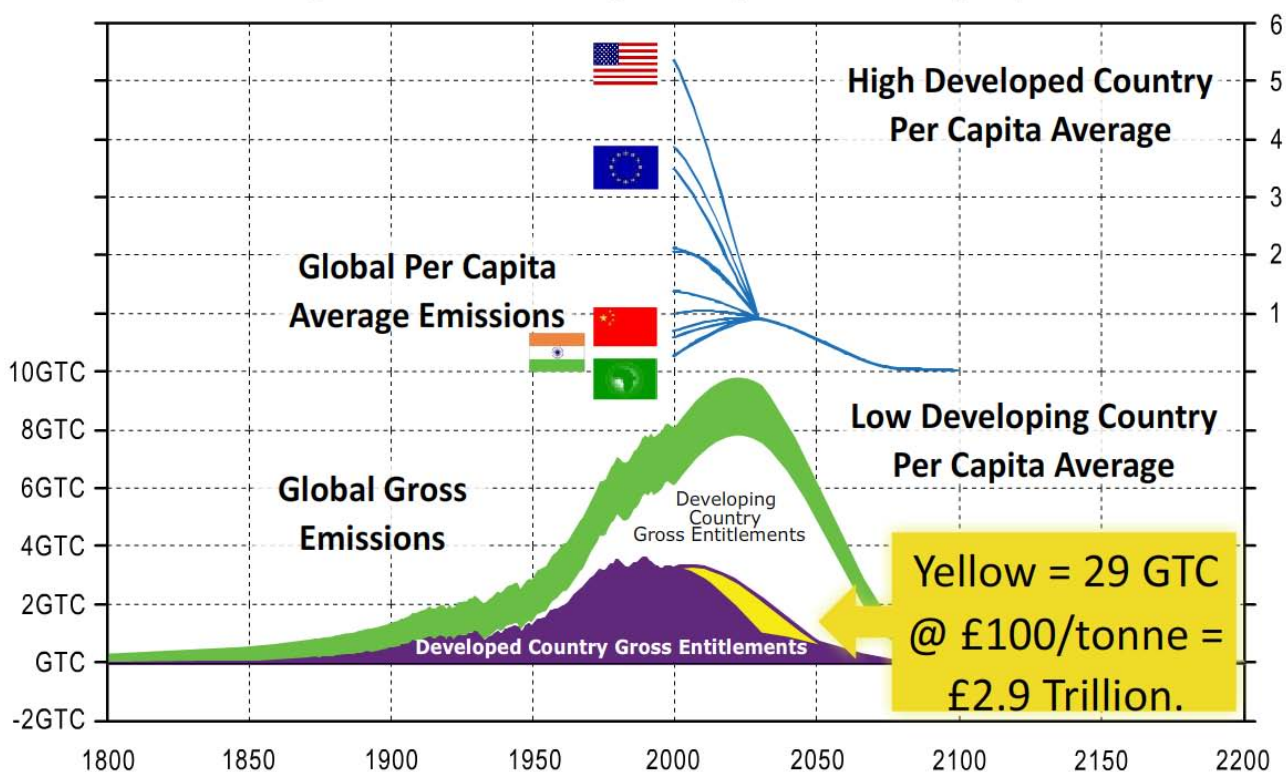
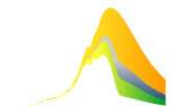
Beyond C&C the US, the UK and others are being faced with ever more extreme and arbitrary demands for climate-justice: - [www.gci.org.uk/animations/C&C\\_COP\\_15.swf](http://www.gci.org.uk/animations/C&C_COP_15.swf)



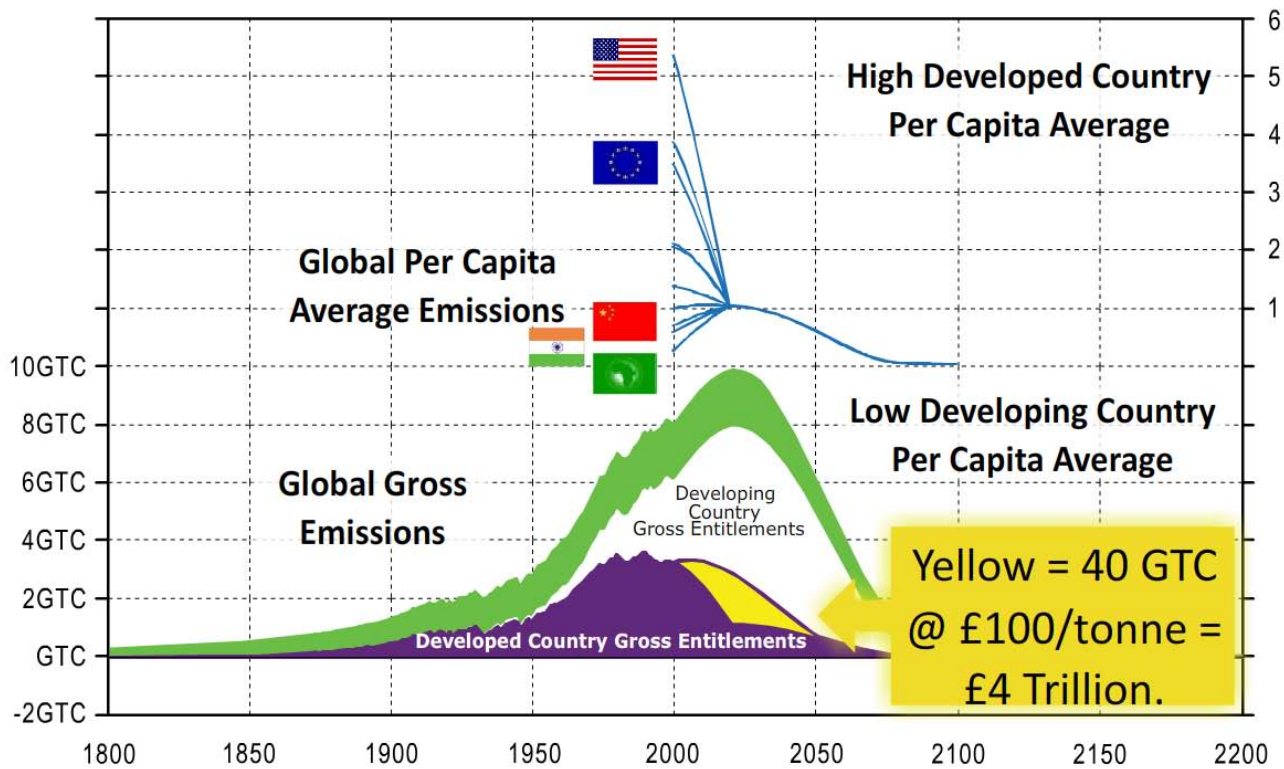
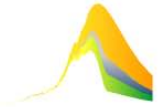
# 90% Emissions Contraction by 2080 Convergence to Per Capita Equal Globally by **2040**



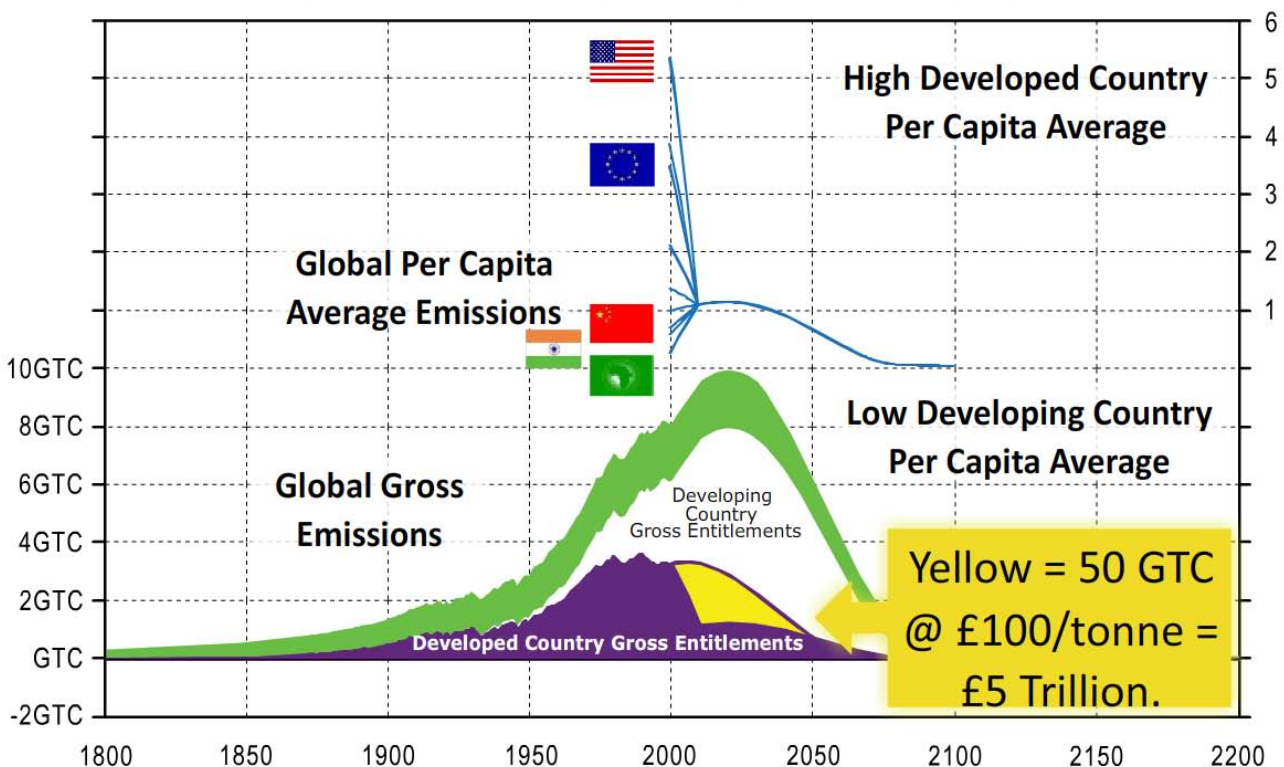
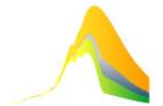
# 90% Emissions Contraction by 2080 Convergence to Per Capita Equal Globally by **2030**



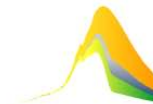
## 90% Emissions Contraction by 2080 Convergence to Per Capita Equal Globally by **2020**



## 90% Emissions Contraction by 2080 Convergence to Per Capita Equal Globally by **2010**







## CLIMATE JUSTICE WITH A VENGEANCE [1]

### e.g. 90% Emissions Contraction by 2080 Instant Convergence to Per Capita Equal Globally

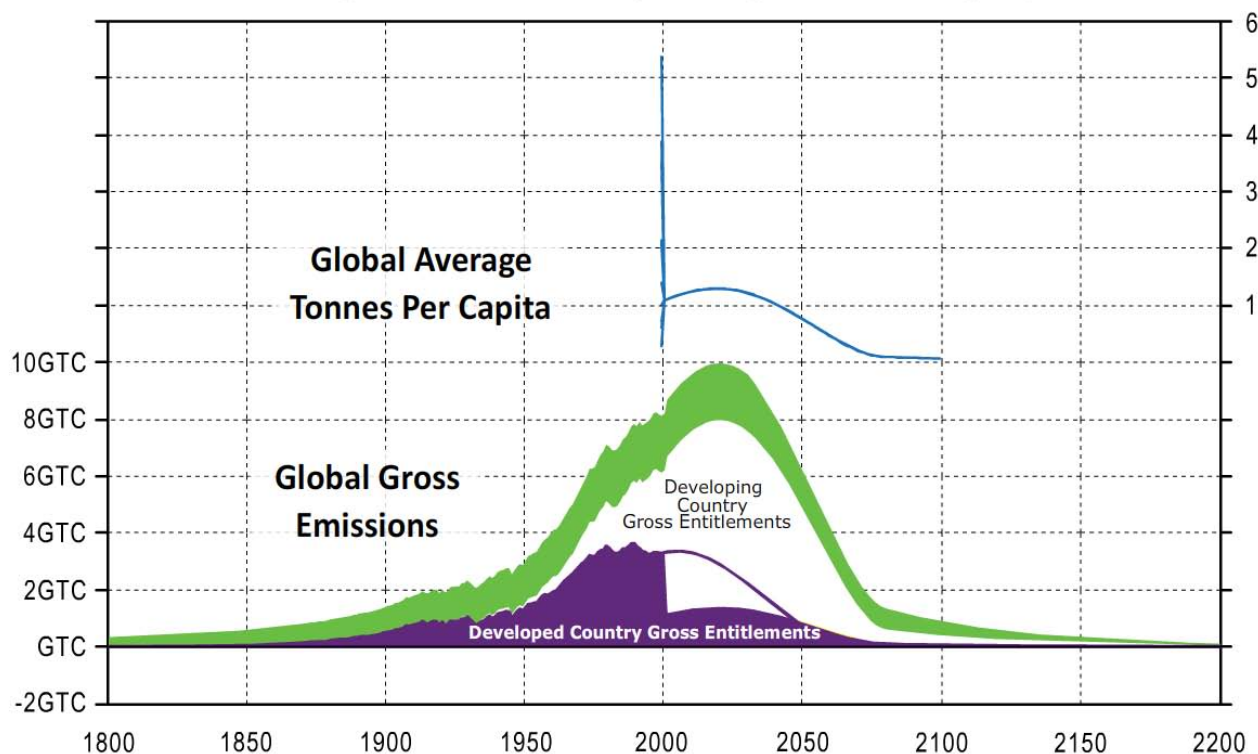
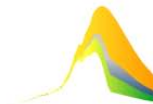
- Known as '*Cap and Share*', it '*insists*' on an *immediate* global convergence to per capita equality for '*instant*'.

#### Climate Justice.

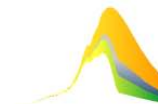
- Per capita emissions entitlements for Developed Countries and Developing Countries must go to the global average *immediately* [see next image].
- An extreme demand of negotiators.



### 90% Emissions Contraction by 2080 Convergence to Per Capita Equal Globally by **2001**







## CLIMATE JUSTICE WITH A VENGEANCE [2]

e.g. 90% Emissions Contraction by 2080

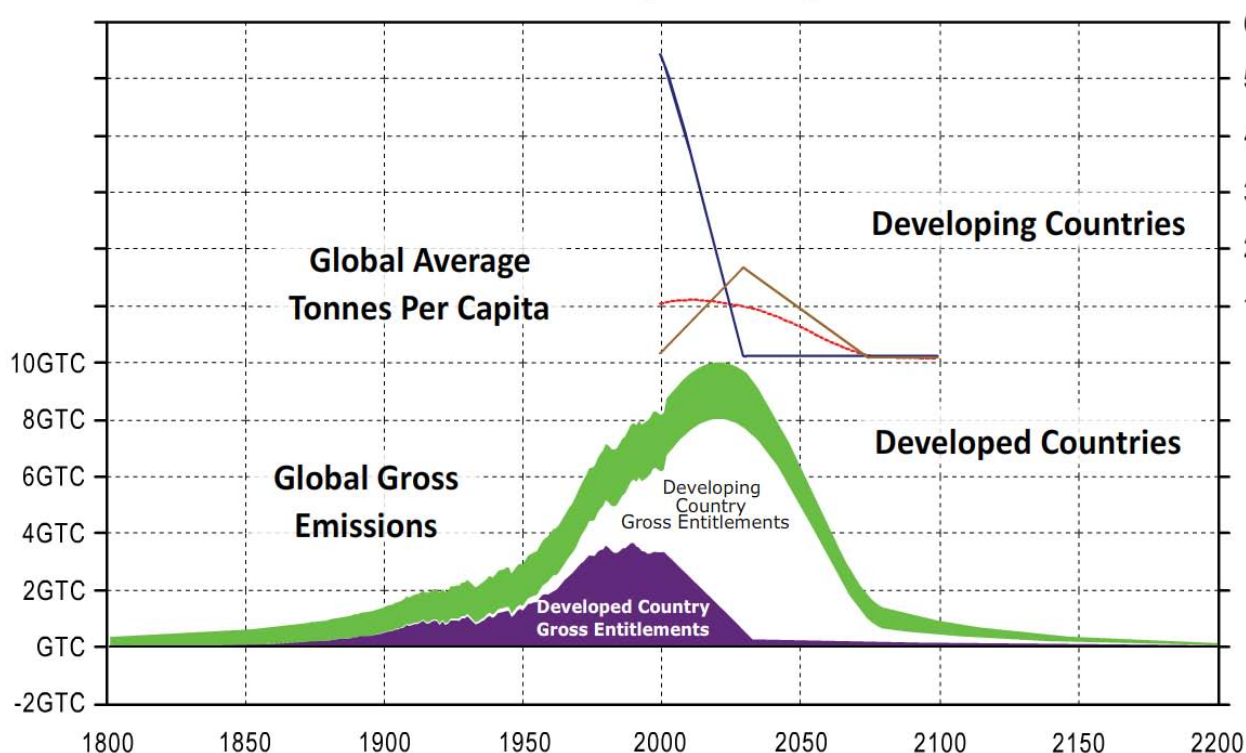
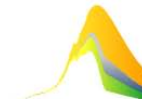
**Double Convergence beyond Per Capita Equal Globally**

- Known as '*Common but Differentiated Convergence*'.
- Global *convergence* to per capita equal shares and then a *divergence* beyond that followed by a second '*reverse convergence*' to equality at zero.
- Developed Countries per capita emissions averages go below the global average so Developing Country averages can go above that average [see next image].
- Trying to *intensify Climate Justice* with more 'flexibility', its calculations become arbitrary and the politics in this worsen an already intractable negotiation.

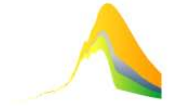


90% Emissions **Contraction** by 2080

**Double-Convergence** beyond 2025



## CLIMATE JUSTICE WITH A VENGEANCE [3]

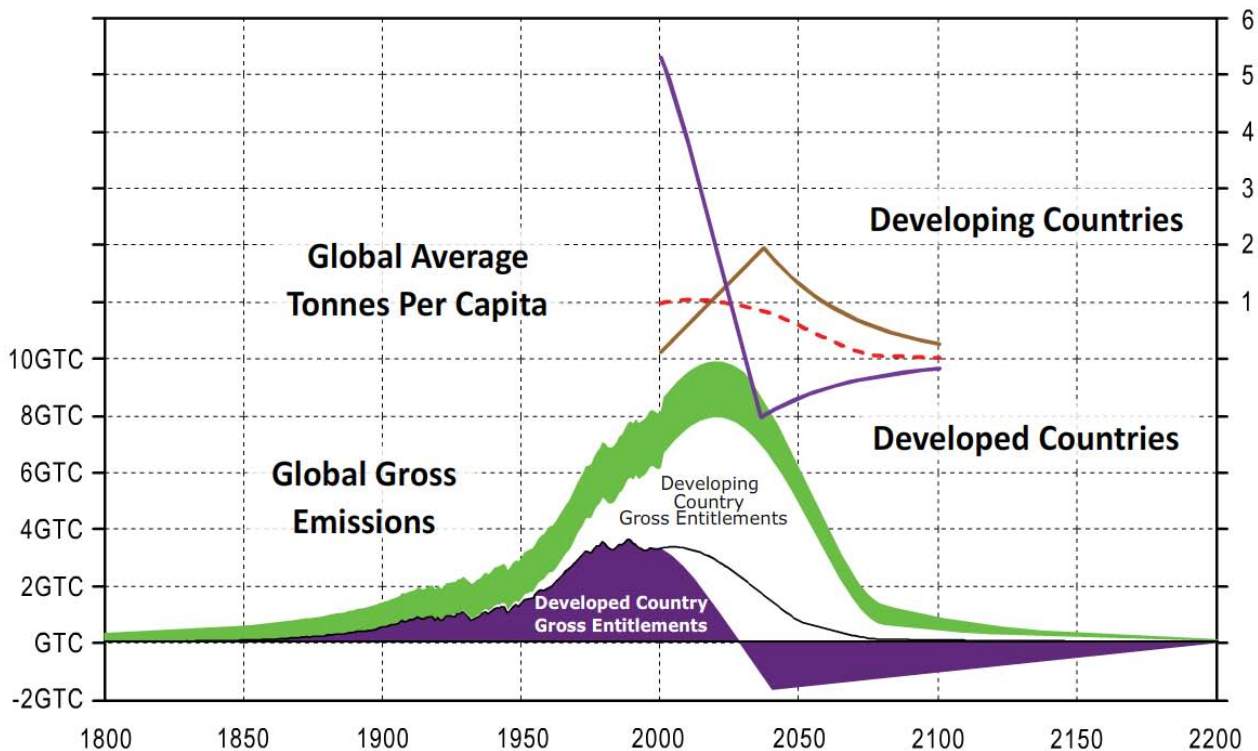
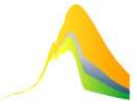


e.g. 90% Emissions Contraction by 2080  
Convergence beyond Per Capita Equal Globally  
To Negative Emissions Entitlements by 2030  
For Developed Countries

- This '*Greenhouse Development Rights*' demands *convergence* to equal per capita and then *divergence* beyond to Negative Entitlements for Developed Countries with unrestrained emissions for Developing Countries [see next image].
- Calculations and the politics become yet more arbitrary and steer the negotiations into conflict.
- This really is **Climate Justice with a Vengeance**.

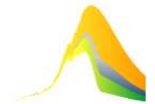


90% Emissions **Contraction** by 2080  
'**Invergence**' to Negative Entitlements for DCs by 2030!





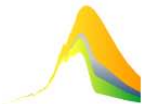
## MAKING A MOCKERY OF CLIMATE & JUSTICE



- There is a 'fourth' alternative called 'Kyoto-2'.
- Described as 'acting in the spirit of C&C', it . . . .
- . . . assumes ownership of fossil fuel reserves globally;
- . . . re-designates the 'consumption' entitlements under 'contraction' as 'production' permits;
- . . . auctions these permits to the world's energy producers, through the world's central banks;
- . . . redistributes the trillions of dollars rent raised annually in this way to the world's deserving causes;
- . . . and essentially abandons the UNFCCC [and reality] altogether.



## MAKING A MOCKERY OF CLIMATE & JUSTICE



This 'fourth alternative' - Kyoto-2 - does not calculate or even engage in any direct linkage with the objective of the UNFCCC - i.e. emissions calculations of contraction:concentrations and contraction:convergence - at all.

It is therefore impossible to graphically chart the Kyoto-2 proposals as self-standing proposals relating to the objective of the UNFCCC, so this space is a blank. The Kyoto-2 website simply says: -

*Global Commons Institute, the "home" of Contraction and Convergence as promoted by the visionary Aubrey Meyer. The website contains and vast amount of information on climate and C&C in particular.*

*The "contraction" part of C&C is very much part of Kyoto2 and we see no reason to dispute the models or conclusions on desirable CO2 trajectories outlined.*

Saying it is production and not consumption that should be the focus of attention, its authors and advocates present Kyoto-2 as the necessary replacement for C&C.

However, since its agenda is a recipe in favour of arrangements not between nations but between the fossil fuel producers and central banks, it is a fiction to claim that Kyoto-2 is an international arrangement to achieve the goal of the UNFCCC. In reality it is a goal-free and unguided private sector proposal, that glosses over asymmetric development by paying futile lip-service to the 'world's deserving causes'.



Dear Chris

## **UNFCCC-compliant Global Climate Change Framework**

We all face an increasingly urgent situation with the threat of runaway rates of climate change occurring and the persistent failure to come to terms internationally to deal with this. COP-15 was another example of this and the odds for COP-16 appear no better as things stand.

So we write to you with the request to convene a high-level public meeting to focus on this predicament and the international need to establish a UNFCCC-compliant Global Climate Change Framework to redress this threat as soon as possible.

Contraction & Convergence is a prime example of this. It is a rational formulation for reconciliation of 'Climate Justice without Vengeance'. With growing support for this approach internationally, we note the positions taken in the UK context by: -

The RCEP in 2000 that, *"The government should press for a future global climate agreement based on the contraction and convergence approach [C&C], combined with international trading in emission permits. Together, these offer the best long-term prospect of securing equity, economy and international consensus."*

The UNFCCC Executive at COP-9 [2004] - achieving the objective of the UNFCCC *"inevitably requires contraction and convergence"*.

The Liberal Democrat party that, *"an agreement must be based on reducing emissions overall, while equalising emissions between the developed and developing worlds – the principle of contraction and convergence."*

Yourself and what you called the *"morally compelling logic"* of C&C.

The All Party Parliamentary Group on Climate Change in the previous parliament.

The UK Climate Act, which Adair Turner effectively characterised as C&C in evidence to the EAC and DECC select committees last year saying that converging to equal per capita entitlements globally is the only option that is, *doable and fair* for organising and sharing the full-term emissions-contraction-event to bring us to UNFCCC-compliance and that *if, for reasons of urgency the rate of global contraction has to be accelerated, for reasons of equity the rate of international convergence has to be accelerated relative to that."*

Several ideas derived from C&C have surfaced since Kyoto with ideas that can be perhaps in various ways incorporated into C&C. However, there is an overwhelming need for an over-arching UNFCCC-compliant Framework that enables the globally competing interests of the over-consuming and the under-consuming to be reconciled with each other and with the objective of the UNFCCC in a non-random manner.

We feel that C&C is the veteran and indeed the apex example of this and urge you to consider our request. At Kyoto 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."*

The adversarial reasons for their withdrawal then were in play again at COP-15: - [http://www.gci.org.uk/public/COP\\_15\\_C&C.swf](http://www.gci.org.uk/public/COP_15_C&C.swf)

C&C answers this in a unifying and constitutional way and the need for this answer becomes increasingly critical.

With best wishes

Yours sincerely

**Colin Challen**

Former Chair UK All Party Parliamentary Group on Climate Change

**Professor Sir Tom Blundell** FRS, FMedSci,

Department of Biochemistry, University of Cambridge,

Former Chairman of the Royal Commission on Environmental Pollution

**Professor Peter Guthrie** OBE

Professor in Engineering for Sustainable Development in the UK

Fellow of St Edmund's College Cambridge

**Professor Martin Rees**

Trinity College Cambridge

**Sir John Houghton**

President, John Ray Initiative

**Michael Hutchinson**

CEO Tangent Films

**The Rt Revd & Rt Hon Richard Chartres** KCVO DD FSA

Bishop of London

**Anthony J. McMichael**, MBBS, PhD

Professor and NHMRC Australia Fellow National Centre for Epidemiology & Population Health, ANU College of Medicine, Biology and Environment, ANU,

Honorary Professor of Climate Change and Human Health, University of Copenhagen

**David Wiggins**

Wykeham Professor of Logic, Emeritus, Oxford University

**Ruth Reed**

President Royal Institute of British Architects [RIBA]

**Sunand Prasad**

Former President of RIBA

**Maneka Gandhi**

Member of Parliament India

**Lord David Puttnam**

Film Producer

**Jack Pringle** PPRIBA Hon AIA FRSA Dip Arch BA(hons)

Vice Chair Construction Industry Council (CIC)

Council Member International Union of Architects (UIA)

Past President Royal Institute of British Architects (RIBA)

**Sir John Harman** FRSA Hon FICE, FIWEM, FIWM, FSE, DCL**Professor Aubrey Manning**, OBE, FRSE,

Emeritus Professor of Natural History, University of Edinburgh.

**Sir Crispin Tickell**

Director Policy Foresight Programme Oxford University

**Tim Livesey**

The Archbishop of Canterbury's Secretary for Public Affairs

**Professor Sir Michael Marmot** MBBS, MPH, PhD, FRCP, FFPHM, FMedSci

Director, UCL International Institute for Society and Health

MRC Research Professor of Epidemiology and Public Health, University College London

Chairman, Commission on Social Determinants of Health

Chairman, Department of Health Scientific Reference Group

**Professor Sir Andy Haines**

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London WC1E 7HT [in a personal capacity]

**Professor Brendan Mackey**

The Fenner School of Environment & Society  
The Australian National University

\* Member, IUCN Council (Oceania Regional Councilor)

\* Member, Earth Charter International Council

Professor David Orr Environmental Studies and Politics Oberlin College and James  
Marsh Professor at the University of Vermont.

**Alistair Woodward**

Head of the School of Population Health, University of Auckland

**Dr Nigel Woodcock**

Reader, Department of Earth Sciences, University of Cambridge

**Professor Bill McGuire**

Director, Aon Benfield UCL Hazard Research Centre  
University College London

**Lord Anthony Giddens**

Professor Emeritus LSE

**John Carstensen**

Chief Executive Officer Society for the Environment

**Professor Mark Swilling**

Sustainability Institute, School of Public Management and Planning  
Stellenbosch University, South Africa

**Lynne Jackson**

Coastal & Environmental Consulting, Cape Town, South Africa

**Dr David Pencheon**

Director - NHS Sustainable Development Unit (SDU)

**Professor Anthony Costello** FMedSci,

Director UCL Institute for Global Health

**Tom Spencer**

Vice Chairman, Institute for Environmental Security

**Dr Mayer Hillman**

Senior Fellow Emeritus Policy Studies Institute

**Susan George**

President of the board of the Transnational Institute

**Alex Kirby**

Former BBC News environment correspondent

**Professor Tim Jackson**

Sustainable Development Surrey University  
Director of the Research group on Lifestyles, Values and Environment

**Professor William E. Rees**, PhD, FRSC

UBC School of Community and Regional Planning, Vancouver, BC, CANADA

**Jeremy Leggett**

Chairman Solar Century

**Andrew Dlugolecki**

UK Climate Change Committee Member, Sub Committee on Adaptation



**The Hon. Tom Roper**

Board Member, Climate Institute, Washington DC

**Roger Arthur Graef OBE**

criminologist and film-maker

**Susan Richards**

non-executive director and founder of openDemocracy

**Adam Poole**

The EDGE UK

**Professor Lord Smith of Clifton**

**Peter Head,**

Chairman of Global Planning Arup.

**Linda Rosenstock MD, MPH**

Dean, UCLA School of Public Health

Former Director, U.S. National Institute for Occupational Safety and Health

**Professor Alan Maryon-Davis**

President, UK Faculty of Public Health

**John Guillebaud**

Emeritus Professor of Family Planning & Reproductive Health, UCL

**Professor Hugh Montgomery**

Director, UCL Institute for Human Health and Performance

**Dr Robin Stott**

Director of the Climate and Health Council

**Emeritus Professor Brian Moss**

University of Liverpool

**Steven Earl Salmony**

AWAREness Campaign on The Human Population [estab. 2001]

**Robert Costanza**

Gordon and Lulie Gund Professor of Ecological Economics

Director, Gund Institute for Ecological Economics

Rubenstein School of Environment and Natural Resources

The University of Vermont

**Jenny Griffiths OBE,**

Member, Climate and Health Council

**Tim Helweg Larsen**

Director Public Interest Research Centre

**Jonathon Porritt**

Forum for the Future

**Lorna Walker**

CABE

**Dave Hampton**

Carbon Coach MA (Cantab) C Env C Eng FCIQB,

Society for the Environment Board Member, The Edge,

RIBA Sustainable Futures, Superhomer, Transition Town Marlow Founder

**Leslie Watson**

Director Sustainability South West

**Nick Reeves**

Executive Director CIWEM

**Professor Ernst Ulrich von Weizsäcker** PhD

Lead Author, Factor Five, Former Chairman of the German Bundestag's Environment Committee

**Professor Robert B. Whitmarsh**

School of Ocean and Earth Science, National Oceanography Centre, SOUTHAMPTON

**Patrick Ainley**

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