UNFCCC Uniting Nations in a

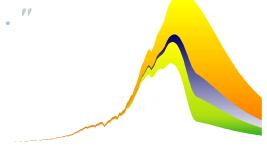
FRAMEWORK CONSENSUS of

"CONTRACTION & CONVERGENCE"

ADVOCACY, SUPPORT & REFERENCES

GCI - "equity and survival....."

18/07/11



The material in this booklet includes: -

- (1) An overview of the *"Frog, Jazz, Geo-Polity"* storylines of the future [World Business Council for Sustainable Development] (pages 4 & 5),
- (2) A summary of future climate risk and the "Contraction & Convergence" (C&C) framework-over-guesswork response (pages 7 to 9) and
- (3) An extended list of pro-*"Contraction and Convergence"* references known to me at the present time.

The booklet has been compiled and published by: -

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Technical support and information concerning *"Contraction and Convergence"* and the planning model itself (CCOptions) are available at: - web URL <u>http://www.gci.org.uk</u>

Global Commons Network (GCN)

If you wish to join GCN by registering your political support for C&C, one way you can do this is by visiting and co-signing the letter at: - web URL <u>http://www.gci.org.uk/indlet.html</u>

With GCN membership you receive updates and have access to: - web URL <u>http://www.igc.topica.com/lists/GCN/prefs/info.html</u>

This document is also downloadable as a portable document file at: - web URL <u>http://www.gci.org.uk/Refs/C&CRefs3.pdf</u>

Orientation - "JAZZ", "FROG", "Geo-Polity" and "Contraction & Convergence"

Do we face climate change with ideas in a *patch-work*, or as *guess-work* or in a *frame-work*? The World Business Council for Sustainable Development (WBCSD) suggests that this 'story-of-the-future' can be explored with scenarios they call 'JAZZ', 'FROG' and 'Geo-Polity' (Shell 1997).



JAZZ - Do we merely act tactically in a patchwork of 'markets' and 'increased efficiency' with 'flexible mechanisms' (such as emission trade) and 'fuzzy' commitments? Some corporate lobbyists favour this though it defaults to antagonism to the United Nations Framework Convention on Climate Change (UNFCCC). Achieving the objective of the UNFCCC requires an absolute contraction of greenhouse gas emissions globally. Efficiency and cost-effectiveness are only meaningful relative to this requirement.



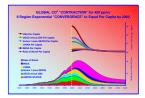
FROG - ('First Raise our Growth) - Do we just carry on as usual with 'trickledown', hedging, disagreements and short-tem guesswork until it is too late to do anything effective? This position is openly hostile to the UNFCCC and the Kyoto Protocol to it. WBCSD see the FROG position as primarily coming from those in poverty in the 'Third World' but recognise this priority exists much more pervasively than that.



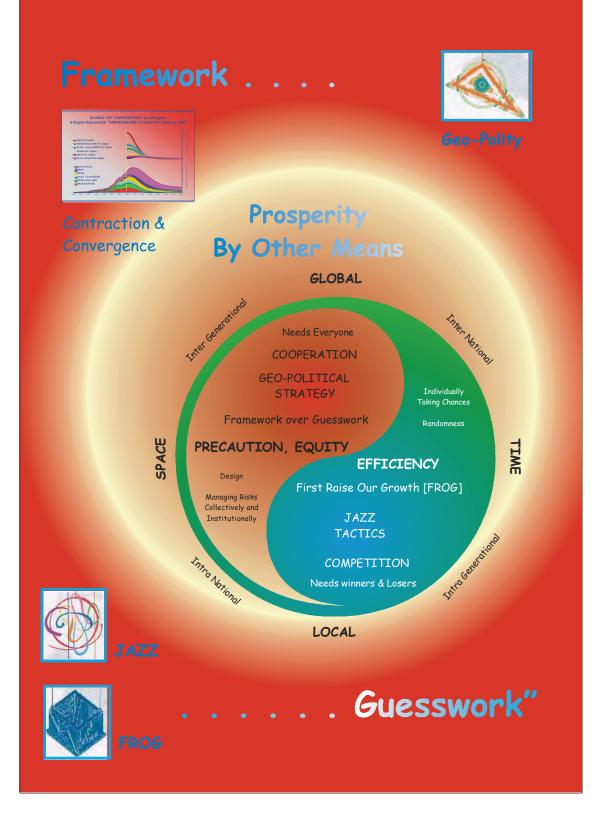
Geo-Polity - ('Geo' - 'Global Environmental Organisation') - Do we now act strategically for the long-term on the already agreed global basis of precaution and equity, as the objective of the UNFCCC requires us to do? The 187 nations that are signatories to the UNFCCC are in principle committed to geo-polity in a debate still hampered by the competing sub-global priorities of JAZZ and FROG.

<u>Comment</u>: - Day to day, these concerns are randomly mixed. In the world of real and accelerating climate changes in the global 'commons', the UNFCCC represents an effort to integrate and structure them for the protection of the commons and future generations. The Kyoto Protocol to the UNFCCC seeks to evolve this though it is patently a short-term sub-global response to what is obviously a long-term global problem. It requires industrial Countries alone to 'cap' their emissions of greenhouse gases within a 5-year 'budget-period' (2008-2012). The sizes of these caps are arbitrary and even if observed, so slight as to barely affect the accelerating rise of greenhouse gas concentration in the atmosphere and global temperature.

The factual circumstances are (1) global 'wealth' is expanding at 3% a year with emissions expanding at 2% (2) the rate of global wealth destruction from climate related disasters is already three times the rate of global wealth creation measured as GDP and (3) on these trends global damages will equal total GDP within two generations. Arresting this catastrophe-oriented damage trend requires that global emissions begin to *contract* at roughly 2% a year as soon as possible and within a limited time frame. Present arrangements may be sub-globally *abatement* cost-effective from a polluter's viewpoint, but to suggest that are globally *damage* cost-effective is totally misleading. What is needed is a precautionary and inclusive framework for the mechanisms based on the recognition that the aspirations in 'FROG' and 'JAZZ' will be achieved because of such 'Geo-Polity' rather than frustrated by it.



"<u>Contraction and Convergence</u>" demonstrates how this can be diplomatically structured. It exists not to oppose but to underwrite these aspirations. This understanding unites all the supporters of *C&C* listed in this booklet. The call now is for a mandate to be created at COP-6 for "*Contraction and Convergence*" to become the basis of future negotiations at the UNFCCC. It is support for all this from the FORGE member companies that we seek.



A Global Framework to Set a New Economic Agenda

The consequences of global climate change are ultimately incalculable. What we can see however, is that economic losses from natural disasters are presently growing at 10% a year and would exceed the total value of all human production within two generations on current trends. (See chart page 9).

- The heads of the US National Ocean Atmosphere Administration and the UK Meteorological Office have stated, *"We are in a critical situation and must act soon."* (The Independent 24/12/99).
- In January 2000, a thousand Corporate CEOs at the Davos World Economic Forum stated, "averting climate change is the greatest challenge facing the world," asking "why has more not been done to avert its devastating trends?"

"Contraction & Convergence" (C&C) is an international framework for limiting the greenhouse gas (ghg) emissions causing climate change whilst positively stimulating the growth of renewable energy technologies and their markets. But it recognises that under these dangerous conditions, climate-efficient commerce must be politically guided, rather than solely reliant on the market, if we are to achieve the goal of sustainable development reflected in the UNFCCC.

Such a framework would underpin and sustain: -

- The growth of economic opportunity
- The reduction of regional inequity across the world
- The orderly transition from carbon to renewable technologies
- While retarding the exponential rise in catastrophic losses All these are fundamental to a prosperous financial sector.

On the record advocacy of C&C includes statements from: -	
Michael Meacher, UK Environment Minister	
The UK Royal Commission on Environmental Pollution	
Jan Pronk, Dutch Environment Minister & Chairman of COP-6	
Klaus Topfer, CEO UNEP	
Svend Auken, Danish Environment Minister	
The European Parliament	
The Africa Group of Nations	

Thus, with wider international support than any other proposal in the debate, C&C is also in the negotiating text going forward to COP-6 in The Hague in November.

The case for the Governments and Industry to join this consensus is compelling. By globally integrating precaution, equity and efficiency, C&C coordinates control to reduce risk exposure at source. It thus defines the political commitment necessary to avoiding dangerous climate change while promoting prosperity by other non-carbon energy based means.

We would like to: -

- 1. Present and discuss "Contraction and Convergence" (C&C) with you.
- 2. Enroll your support in the global consensus for C&C and
- 3. Relay this to ministers at the COP-6 UN climate negotiations 20-25 Nov.

Widely endorsed text for "Contraction, Convergence, Allocation & Trade" (C-CAT)

Countries agree a reviewable global ghg emissions carbon 'contraction budget' resulting in a precautionary, stable value for ghg concentrations. The internationally tradable shares in this budget are then agreed on the basis of simple 'convergence' from now, where shares are broadly proportional to income, to a target date in the budget timeline after which they remain proportional to an agreed base year of global population. Proceeds from this trade can be directed to the deployment of zero emissions technology.

"Contraction" - On the basis of precaution, all governments collectively agree to be bound by such an atmospheric target [for example 450 ppmv – see page 9]. This makes it possible to calculate the diminishing amount of greenhouse gases that the world can release for each year in the coming century. Subject to annual review, this is the contraction part of the process.

"<u>Convergence</u>" - On the basis of equity, 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 capita, to be achieved by smooth transition.

"<u>Emissions Trade</u>" - Countries unable to manage within their shares would, subject to agreed rules, be able to buy the unused parts of the allocations of other countries. Sales of unused allocations would give less developed countries the income to fund development in zero-emission ways. Industries in developed countries would benefit from the export markets this restructuring would create.

"<u>Sustainable Growth</u>" - C&C does not place a straightjacket on growth per se by its limitation on fossil fuels. Instead it averts catastrophic losses by promoting the development and growth of zero carbon energy technologies necessary to achieve prosperity and make development sustainable.

C&C does not replace the Kyoto Protocol. It supersedes it in due course.

As the Kyoto Protocol is an inadequate response to the climate dilemma, it may or may not be ratified. Either way, a global C&C framework must in due course supersede it to avoid complete breakdown, randomness and drift. C&C is the logical way to resolve the diplomatic impasse over global participation in the UNFCCC that the Kyoto Protocol for the moment seeks to postpone.

As the UNEP CEO Topfer recognised in June 97, C&C does not displace the Protocol: -

"The review system of Kyoto mechanisms can ensure equity. Currently CO2 emissions rights are allocated according to existing emissions patterns with a specified reduction percentage for various countries within a certain period of five years (2008-2012). The redistribution through the Kyoto Protocol could be continued until emissions rights are uniformly distributed on a per capita basis. This will be a critical element to ensure the poor also get rights to utilise the world's environment, or in this limited case, the assimilative capacity of the atmosphere, a global commons resource."

As the Chairman of COP-6 Jan Pronk stated on the 25th July in the Earth Times, C&C is, *"the most equitable . . . easier and cheaper,"* than other options and unlike those can also keep us within a tolerable 2 degrees Celsius rise in temperature.

Civil Society, Industry & Governments and a Mandate for "C&C" at COP- 6

A mandate for future 'wider participation' in terms of C&C needs to be established at COP-6. Backing from civil society and Industry in general will be decisive in helping those governments that want to establish a mandate for C&C at COP-6.

OVERVIEW of the "DEVASTATING TRENDS" and the "Contraction and Convergence" SOLUTION

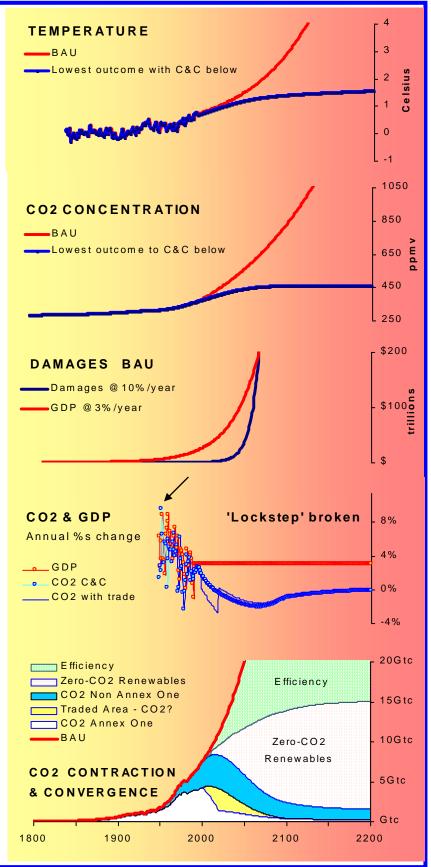
Recorded surface temperature from 1860 until 2000 shows an overall rise of 0.9° C. The future projections are following CO₂ emissions and atmospheric ghg concentrations (in ppmv - parts per million by volume). The red line shows Business-as-Usual (BAU) where the underlying emissions grow at 2%/yr. The blue line shows the lowest possible climate sensitivity - a total rise of 1.5° C - assuming a contraction by 2100 of 60% in annual emissions.

Recorded atmospheric CO_2 concentration from 1860 until 2000 shows an increase of 34% over pre-industrial levels. This is a rise both higher and a faster than anywhere in the ice-core sampling back 440,000 years before now. Concentrations are rising as the result of accumulating emissions. In future, the worst case is the red line as BAU. The best case sees this concentration stabilised at 70% above pre-industrial levels due to a 60% contraction in the underlying emissions by 2100.

Damages here are the global economic losses (Munich Re) for the four decades past for all natural disasters projected at the observed rate of increase of 10% a year in comparison to global \$GDP at 3%. If the global trends continue BAU, damages will exceed GDP by 2065! The risks will soon rise beyond the capacity of the insurance industry and even governments to absorb. Damages will rise for the century ahead even with emissions contraction, but the rate can be reduced with Contraction, Convergence, Allocation and Trading (C-CAT).

For the past four decades, the output of CO_2 and GDP from global industry have been correlated nearly 100% (known as 'lockstep'). Breaking the lockstep is essential. Future GDP is projected here at 3% a year. Future CO_2 goes to -2% with the retreat from fossil fuel dependency shown below, that limits CO_2 concentrations to 70% above pre-industrial levels, shown above. If the traded area is also converted to zero-emissions supply (below), the carbon retreat might achieve up to - 4% a year.

The red line shows BAU CO₂ emissions. The solid segments show "Contraction, Convergence, Allocation and Trade" [C-CAT] to manage emissions down by at least 60% within a given time frame (2100 here) with an agreed 'contraction budget' (here 680 billion tonnes of carbon). The internationally tradable shares of this budget (here, 100 billion tonnes) result from convergence to equal per capital emissions by an agreed date and population base year (here 2020). If this is invested in zero-emissions technologies, risk and damages are lowered further as the budget is then net of these emissions as well. The renewables opportunity is the difference between C-CAT and BAU. It is worth trillions of dollars per annum - the biggest market in history.



GLOBAL COMMONS NETWORK - Consensus for the principles of "Contraction and Convergence"

European Parliament - AFRICA Group of Nations - Heads of state of the Non-Aligned Movement of Nations (NAM) -Governments of CHINA and INDIA - Several European Environment and Development Ministers - an extensive and growing international list of eminent individuals and organisations including - Global Commons Institute UK - GLOBE International, [the environmentally concerned parliamentarians network - include US] - Forum for the Future UK - Charter 99 - the UK Royal Commission on Environmental Pollution (RCEP) - Wuppertal Institute GERMANY - International Rivers network California USA - International Federation of Red Cross and Red Crescent Societies - ENDA SENEGAL Centre for Advanced Studies BANGLADESH - Chatham House UK - Sustainable Development Institute Wyoming USA -United Nations Association UK - National Coalition for the Chemically Injured USA - Pacific Institute NZ - Project for Ecological Recovery THAILAND - SPREP - Ozone Action USA - Institute of SA Studies, LESOTHO - Habitat International Coalition INDIA - Christian Aid UK - New Economics Foundation UK - Earthlife Africa SOUTH AFRICA - European Society for Environment and Development - Solar Hydrogen Energy Group UK - International Institute of Environment and Development UK - Haribon Foundation PHILIPPINES - Pelangi INDONESIA - Friends of the Earth UK - Centre for Science and Environment INDIA - LetsLink SCOTLAND - Corporate Watch UK - Indira Gandhi Institute of Development Research INDIA - Tourism Concern UK - Reforest the Earth UK - Foyle Basin Council Londonderry - Green Party UK - Gawan Environmental Centre SOMALIA - Centre for Public Environmental Advocacy SLOVAK REPUBLIC - Irish Doctors Environmental Association IRELAND - SOS Selangor MALAYSIA - Women Acting Together for Change INDIA - IDEAL MALAYSIA - World Development Movement UK - Focus on the Global South THAILAND - Climate Action Network CENTRAL & EASTERN EUROPE - Climate Network EUROPE - Climate Network AFRICA - Clean Air Action Group HUNGARY - Foundation for the Economics of Sustainability IRELAND - Progress On Line SIERRA LEONE - Association Quebecoise des Energies Renouvelables CANADA - Clary Meuser Reseach Associates California USA - Fos and Associates USA - National Climate Programme PANAMA - The AUSTRALIA Institute - Queensland Transport, AUSTRALIA - Australian Cooperative Research Centre for Renewable Energy, WESTERN AUSTRALIA - Asia-Pacific Network for Global Change Research, Japan -Environment Conservation Society SUDAN - Counterpart International - Resource Planning & Development Commission, TASMANIA - Forum Umwelt & Entwicklung, GERMANY - Population Action International USA - INZET Holland - C-SERGE, UK - The Ecologist UK - Canadian Association for the Club of Rome - Environmental Dept, Chamber of Mines of SOUTH AFRICA - National Institute of Advanced Studies Indian Institute of Science INDiA - The RainForest ReGeneration Institute Washington, D.C. USA - Geonomics Association of BC CANADA - Association of Artists for GUATEMALA - Global Dynamics Institute RomeITALY - International Forum "Danube -River of Cooperation" HUNGARY - Alternative Information and Development Centre (AIDC) SOUTH AFRICA - President NICARAGUAN Development Association - GAIA Foundation London - Kairos Europa - American Society of International Law USA - Wildlife Centre for Environmental Studies, Lund, University, SWEDEN - UpStart Services Ltd - UNED Forum UK - Potsdam Institute for Climate Impact Research, GERMANY -TERI-Europe, London UK - Good HealthKeeping, UK - Corporation for the Industrial Development of Biotechnology and Clean Technologies, COLOMBIA - North East Resistance Against Genetic Engineering USA - AAC-Asociación para la Acción Climática, Montevideo, URUGUAY - Stuart M. Leiderman - "Environmental Refugees & Ecological Restoration" Environmental Response/4th World Project, New Hampshire, USA - International Journal of Humanities and Peace - Tetworld Center for Peace and Global Gaming - Metanoia Trust and REEP, London, UK - Institute for Agriculture and Trade Policy, Minneapolis, Minnesota USA - Center for Russian Environmental Policy, Moscow, RUSSIA - Pacific Biodiversity Institute, Winthrop, WA - Agentura GAIA, Prague, CZECH REPUBLIC - Ecological NW Line, St.Petersburg, RUSSIA - Scientists and Technicians for a Non Nuclear Future - The Source Natural Healing Centre, Vancouver, CANADA BC - Zululand Environmental Alliance (ZEAL), Empangeni, SOUTH AFRICA - Latin American Center Social Ecology - Friends of the Earth CZECH REPUBLIC - GroundWork, SOUTH AFRICA - Sustainability Network - Solar Energy Applications for SAREP, South Asia Renewable Energy Programme - SOUTH AFRICA Development Fund - Diatribal Press London UK - Earth Day Network, Seattle USA - Foundation for Conservation and Development, ECUADOR - Blazing Tattles - Pacific Institute for Studies in Development, Environment, and Security CA USA - Scientists for Global Responsibility UK - Global Exchange - Darling Sustainable Energy and Employment Scheme SOUTH AFRICA - OILwatch EUROPE - Vuk'Afrika, Cape Town, SOUTH AFRICA - Environmental Monitoring Group, Wynberg, SOUTH AFRICA - Association for Protection of Environment & Culture (APEC), Morang, NEPAL - Institute for Global Futures Research (IGFR). AUSTRALIA - Networking for a Common Future in Society Victoria, BC. CANADA - CHPA, London - Green Futures - Institute for Transport & Development Policy, ECUADOR - Religion Science and the Environment, GREECE - Calvert World Values Fund - Department of Philosophy, Lehman College, Bronx, N.Y. - Innovat - Special Projects and Technology Applications, Colombus, Ohio, USA - Center for Energy & Environmental Policy, US - Ghulam Ishaq Khan Institute of Eng. Sciences & Technology, TOPI 23460, District PAKISTAN -Environment Office, Imperial College, London - Institute for Public Policy Research, London UK - Ecosoluzioni, ITALY -Department of Transport Engineering Pontificia Universidad Catolica de CHILE - Mto Consulting, AUSTRALIA - Instituto Plan Agropecuario, URUGUAY- Renewable Energy Information Network of NAMIBIA - Deutsche Energie Consult Germany -ZIMPOWER Engineers Zimbabwe - Energy & Development Research Centre, University of Cape Town, SOUTH AFRICA -Second Nature, Inc. Boston, MA USA - CENN, CAUCASUS Environmental NGO Network - GEORGIAN Society of Forestry, National Parks and Conservation - Ageing Research Foundation of INDIA, Tiruchirappalli, INDIA - ECOjustice, Environmental Consultant. SPAIN - International Association of Educators for World Peace - Wisconsin Secretary of State, Madison, Wisconsin USA - Canadian Wind Energy Association - SOLAR AGE NAMIBIA, Windhoek, Republic of NAMIBIA - Science and Environmental Health Network - Environmental Systems Research - Corporate Europe Observatory, NETHERLANDS - A SEED Europe - Energy&Development Group Noordhoek Cape Town SOUTH AFRICA - Environmental Advisory Council, E.Pennsboro, PA - IMSA, NETHERLANDS

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Tony Blair, Prime Minister United Kingdom - Oct 1998 Sir John Houghton, Chair IPCC WG1 - 2000	
SIR JOHN HOUGHTON, CHAIR IPCC WG1 - 2000 SIR ROBERT MAY, UK GOVERNMENT CHIEF SCIENTIST - OCT 1998	
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Statements by key Individuals

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

"Contraction and Convergence" ["most equitable . . . easier & cheaper" than alternatives]. Full text at: - http://www.earthtimes.org/jul/environmentthekyotoprotocoljul25_00.htm

".... The debate about broadening participation of developing countries in the global effort to stabilize greenhouse concentrations in the atmosphere at sustainable levels has the tendency to focus first on the most advanced developing countries. 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.

Klaus Topfer, Dir. United Nations Environment Programme (UNEP) - June 1999

"Convergence - The review system of Kyoto mechanisms can ensure equity. Currently CO2 emissions rights are allocated according to existing emissions patters with a specified reduction percentage for various countries within a certain period of five years (2008-2012). The redistribution through the Kyoto Protocol could be continued until emissions rights are uniformly distributed on a per capita basis. This will be a critical element to ensure the poor also get rights to utilise the world's environment, or in this limited case, the assimilative capacity of the atmosphere, a global commons resource."

Dr Song Jian - Chinese State Councilor Climate Change & Population - Oct 1997

"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. Today the per capita consumption is just one tenth of that of the developed countries, one eighth of that of medium developed countries. It is estimated 30-40 years would be needed for China to catch up with the level of medium developed countries."

Svend Auken, Danish Environment Minister - April 1999

"Dear Professor Spencer

I have been informed about the very justified awarding to you of the Best Member of European Parliament Award in the 1999 Green Ribbon Political Awards. Let me express my wholehearted congratulations. Your tremendous and very successful work with the GLOBE international parliamentarians network has been a pleasure to observe

If we did not already have such a successful construct as GLOBE, we would have to create it. It is no secret that I have been happy to see the support given to GLOBE from all over the world, and the way GLOBE has contributed to the international discussions and shaping of ideas, in the important task of developing concepts and creating consensus for sustainable approaches to stewardship of this planet.

It is no secret that GLOBE boldly succeeded in formulating the obvious, which was not yet achieved by ministers. That global partnership to avoid the danger of climate change requires that we start to discuss the arrangements for sharing of both responsibilities and entitlements, based on principles of precaution and equity, that best defend the aspirations and security of all nations for the future.

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, such as the max. 2 degrees temperature rise, and the max. 550 ppmv CO2-concentration, recommended by the European council of ministers.

Already, your influence was felt, when the European Parliament clearly formulated on the 17 September 1998, that future negotiations ought to be based on these obvious ideas, as the logical next step.

Our own national analysis, as formulated in Danish Energy Futures and in Energy 21 from 1995 and 1996, clearly contain ideas very close to the ideas of contraction and convergence. As our own contribution to such an international regime, we foresaw the need to cut our own emissions dramatically by 50% before 2030, and our plans still point in that direction. Hence I warmly welcome that similar views seem to be gaining support from quarters in both the North and the South. Inter alia thanks to your work.

Presently, we face the extreme challenge of securing a ratification of the Kyoto-protocol, through successful negotiations at COP6. We cannot allow failure there, and must be prepared to show openness to new ideas, in order to square the circle of accommodating conflicting views among the major negotiating blocks. If this is only possible by viewing the protocol as part of the bigger task involving the future direction for the negotiations, we should be prepared to do so.

Developing countries have just worries about the future, and how to secure their development aspirations, and we all have worries about the fate of this planet. And at the same time, we all have our individual worries about the impact of the protocol in the short run. If the cure to alleviate all these worries is that we make a combined attack on the worries, we must do it. Getting back from COP6 without seeing a future road would be a disaster, and irresponsible to mankind.

Congratulating you again, warmly, I remain Yours Sincerely Svend Auken - Minister for Environment and Energy"

Michael Meacher UK Minister of the Environment - April 1999

"Dear Tom

Congratulations on winning the Green Ribbon Award. You certainly have been a tireless campaigner for fair and comprehensive international action on climate change, and I think this award is well deserved.

It also reflects growing understanding of, and support for the need for, along the contraction and convergence lines you have so strongly championed. The steps already taken by the Annex One countries to the Convention could be confused as representing initial moves in this process through the proposed collective contraction of 5% by 2008-12 compared with 1990, matched by North-South convergence as the developing countries steadily industrialise.

But a much tighter and sharper framework of commitments is clearly now needed, and one that is focused on longer term emissions targets that are substantially lower. I note that Sir John Houghton, as chair of the IPCC, recently told the British Association for the Advancement of Science that global greenhouse gas emissions must be reduced by more than 60% in less than 100 years in order to stabilise their rising concentrations in the atmosphere.

It is difficult to see that this can be achieved with universal global assent - the underlying basis of the Convention - without collective agreements that broadly reflect the principles of contraction and convergence. The growing evidence of sudden and highly damaging climatic events which we are already seeing world-wide only seem to emphasize the urgency of securing such a framework.

I do believe that contraction and convergence provides an effective, equitable marketbased framework within which Governments can co-operate to avert climate change, and again congratulate you on your campaigning to bring this about.

Yours sincerely Michael Meacher - Minister for Environment"

Tom Spencer, Chair European Parliament Foreign Affairs Committee at COP-3.

"I had the honour to address COP1 in Berlin. I had the impertinence to suggest that future meetings be held on the great Antarctic iceberg as a way of dramatising the urgency of our task. Kyoto is much more pleasant than an iceberg, but the urgency has intensified.

The nature of the challenge of climate change is now clear. It is not scientific. It is not technological - we are an adaptive species. As John Prescott said yesterday, the challenge is political, and I would add, it is intellectual, institutional, and ethical. After a week of debate about important details, I suggest that the time is right for a statement of even more important principle, After years of debate, about "efficiency" I suggest that your results cannot be brought to success without a statement about equity. The "sense of the Senate" resolution made the fair political point that they could not ratify a treaty, that was not seen to be fair by the American people, A treaty would have to include meaningful participation by developing countries. I would say to my friends in Congress that you cannot ask for that involvement on the basis of efficiency alone, you must specify that the nature of that involvement will be equitable. I am not a Government. I speak this morning only for an organisation of environmentally- committed parliamentarians from 47 countries. With all the humility appropriate to a non-negotiator, may I suggest a text to this great gathering of negotiators.

Many of you know the Contraction and Convergence analysis. It offers a framework for an answer. It offers an envelope of equity within which we can trade and barter our way to collective sanity in the coming decades.

Let us make a start in this direction. Let the Conference of Parties resolve " to agree to negotiate a legally binding "Equity Protocol" establishing the principle that the apportionment of global emission entitlements be deliberately converged to a point of equal per capita shares at a date to be agreed."

I invite the Government of Japan to propose such a text, which is in line with their policy statement at AGBM7. I invite the European Union, whose efforts entitle it to take a leadership role, to propose such a text. I invite the United States, which rightly takes its stand on the basis of a "global solution to a global problem" to draw the logical conclusion of its own approach, and to propose such a text.

And in response: May I invite the Africa Group whose statement in August led the way to respond to such a text. May I invite the AOSIS states whose very survival depends on our collective success to back such a proposal. May I invite the Governments of China and India to seize this opportunity of an equity protocol that would entrench in our process the principle they have correctly and courageously fought for.

In life the right thing to do is the right thing to do. It is occasionally true in diplomacy that an ethically just answer is also the only available way out of an impasse."

John Porter, US Parliamentarian Chair GLOBE USA - Nov 1998

"Meaningful progress on confronting the challenge of climate change will only occur when countries from the North and the South are able to collaborate in issues of significant and sustainable development. The GLOBE Equity Protocol - Contraction and Convergence - and its mechanism for financing sustainable development is the only proposal so far which is global, equitable and growth-oriented. It is precisely these issues that were endorsed at the GLOBE International General Assembly in Cape Cod, and form the thrust of our recently released (Nov 1998) paper, "Solving Climate Change with Equity and Prosperity." [Viewed at: - http://www.globeusa.org].

Indian Environment Minister for a "Global Solution" at COP1 - April 1995

"We face the actuality of scarce resources and the increasing potential for conflict with each other over these scarce resources. The social, financial and ecological interrelationships of 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."

Prof Saifuddin Soz MP. Indian Environment Minister in Kyoto - Dec 1997

"In any discussion, "Contraction and Convergence", the central point is entitlements equitable per capita entitlements. At Kyoto we had stressed that any discussion on emissions trading ought to be framed in terms of per capita entitlements. Any trading can take place only after the emissions entitlements of the trading partners is defined and legally created - equitably of course. Historical emissions are iniquitous and cannot be the basis of entitlements. Entitlements will define the sharing of the atmosphere on an equitable basis which also brings together all the cooperative mechanisms in the Kyoto Protocol in a common framework."

Tony Blair, Prime Minister United Kingdom - Oct 1998

"Dear Cynog - I note what you say about the Contraction and Convergence proposal. I agree that, in the fight against climate change, this makes an important contribution to the debate on how we achieve long-term climate stability, taking account of the principles of equity and sustainability."

Sir John Houghton, Chair IPCC WG1 - 2000

"Three widely accepted principles will govern the international agreements needed to meet the threat of climate change. The first is the Precautionary Principle, already clearly embedded in the UNFCCC agreed at the Earth Summit in Rio in 1992. This states that the existence of uncertainty should not preclude the taking an appropriate action. The reason for such action is simply stated as the stabilisation of the concentrations of greenhouse gases (such as CO2) in the atmosphere in ways that allow for necessary economic development. The second principle is the Polluter Pays Principle, which implies the imposition of measures such as carbon taxes or carbon trading arrangements. The third is the principle of Equity, both intergenerational and international which is the most difficult to apply. However a proposal by the Global Commons Institute that is being widely discussed applies these principles by allowing eventually for the allocation of carbon emissions to nations on an equal per capita basis while also allowing for emissions trading."

Sir Robert May, UK Government Chief Scientist - Oct 1998

"Thank you for your letter of the 23rd April and for the information on "Contraction and Convergence" policy and the efforts by GCI and GLOBE to build up global support for it. These matters are clearly of great importance and I would agree that this approach merits full consideration, including at the senior international political level, along with other ideas contributing to the development of a workable global climate strategy."

Ambassador Raul Estrada Oyuela, Fmr. Chair Kyoto Negotiations - Feb 2000

CONTRACTION AND CONVERGENCE

"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. Countries unable to manage within their shares would, be able to buy the unused parts of the allocations of other countries. The entitlement of rights transferred in this trading is legitimised by the per inhabitant criteria.

Level of contraction and timing of convergence should be negotiated on the basis of the precautionary principle. Suggestions for emission reductions are well known and convergence should be achieved at medium term to satisfy legitimacy. I have read that the Chairman of IPCC''s WGI, Sir John Houghton, has said that this is the "logical approach". Analysis of Contraction and Convergence in TAR is a must if equity is going to be taken into account in the report.

Statements by key Institutions

The Royal Commission on Environmental Pollution (RCEP) - June 2000

Chapter Four, "The Need for an International Agreement", "Contraction and Convergence" Chapter 4 [http://www.rcep.org.uk/pdf/chp4.pdf]

"3. The government should press for a future global climate agreement based on the <u>contraction and convergence</u> approach, combined with international trading in emission permits. Together, these offer the best long-term prospect of securing equity, economy and international consensus (4.69)."

4.47 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 equal per capita basis. There will have to be a comprehensive system of monitoring emissions to ensure the quotas are complied with. Adjustment factors could be used to compensate for differences in nations" basicenergy needs. Those countries which regularly experience very low or high temperatures might, for instance, be entitled to an extra allocation per capita for space heating or cooling.

4.48 A system of per capita quotas could not be expected to enter into force immediately. At the same time as entitling developing nations to use substantially more fossil fuels than at present (which they might not be able to afford), it would require developed nations to make drastic and immediate cuts in their use of fossil fuels, causing serious damage to their economies.

4.49 A combination of two approaches could avoid this politically and diplomatically unacceptable situation, while enabling a per capita basis to be adhered to. The first approach is to require nations'' enission quotas to follow a contraction and convergence trajectory. Over the coming decades each nation''sallocation would gradually shift from its current level of emissions towards a level set on a uniform per capita basis. By this means "grandfaher rights'' would gradually be removed: the quotas of developed nations would fall, year by year, while those of the poorest developing nations would rise, until all nations had an entitlement to emit an equal quantity of greenhouse gases per head (convergence). From then on, the quotas of all nations would decline together at the same rate (contraction). The combined global total of emissions would follow a profile through the 21st and 22nd centuries which kept the atmospheric concentration of greenhouse gases below a specified limit.

4.50 The upper limit on the concentration of greenhouse gases would be deter-mined by international negotiations, as would the date by which all nations would converge on a uniform per capita basis for their emission quotas, and the inter-mediate steps towards that. It would probably also be necessary to set a cut-off date for national populations: beyond that date, further changes in the size of a country''s population would not lead to any increase or decrease in its emission quota.

4.51 In table 4.1 17 we have applied the contraction and convergence approach to carbon dioxide emissions, and calculated what the UK"s emissions quotas would be in 2050 and 2100 for four alternative upper limits on atmospheric concentration. We have assumed for this purpose that 2050 would be both the date by which nations would converge on a uniform per capita emissions figure and the cut-off date for national populations.18 If 550 ppmv is selected as the upper limit, UK carbon dioxide emissions would have to be reduced by almost 60% from their current level by mid-century, and by almost 80% by 2100. Even stabilisation at a very high level of 1,000 ppmv would require the UK to cut emissions by some 40% by 2050.

4.52 The UK-based Global Commons Institute has taken the lead in promoting contraction and convergence, and has developed a computer model which specifies emission allocations under a range of scenarios. The concept has been supported by several national governments and legislators. Some developed nations are very wary of it because it implies drastic reductions in their emissions, but at least one minister in a *European government has supported it.20 Commentators on climate diplomacy have* identified contraction and convergence as a leading contender among the various proposals for allocating emission quotas to nations in the long term.21 4.53 The other ingredient that would make an agreement based on per capita allocations of quotas more feasible is flexibility of the kind already provided in outline in the Kyoto Protocol. Nations most anxious to emit greenhouse gases in excess of their allocation over a given period will be able and willing to purchase unused quota at prices that incline other countries to emit less than their quota, to the benefit of both parties. The clean development mechanism, which allows developed nations to claim emission reductions by sponsoring projects that reduce emissions in developing nations to levels lower than they would otherwise have been, can also be seen as a form of trading. 4.54 In the longer term trading by companies in emission permits, drawn from national emission quotas determined on the basis of a contraction and convergence agreement, could make a valuable contribution to reducing the global costs of stabilising greenhouse gas concentrations while transferring resources from wealthy nations to poorer ones. Trading needs to be transparent, monitored and regulated, and backed by penalties on nations which emit more than they are entitled to. If it became merely a means of enabling wealthy nations to buy up the emission entitlements of poor countries on the cheap, thereby evading taking any action at home, trading would not serve the cause of climate protection. Nor would it if developing countries which had sold quota heavily went on to emit in excess of their revised entitlements.

Environmental Justice Network Forum (EJNF) South Africa - August 1998

"EJNF commits itself to campaign in support of the "Contraction and Convergence" proposals that specifically embody the principles of global equity and sustainability. This means that EJNF will advocate that the apportionment of future international greenhouse gas (ghg) emissions entitlements shall be the result of a deliberate convergence process to a point of equal per capita shares globally by a date to be negotiated by the United Nations Framework Convention on Climate Change (UNFCCC)."

European Parliament - 1998

"... 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 CO2 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;"

The Africa Group - August 1997

"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 pre-requisite. 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 therefore 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."

GLOBE International General Assembly (GIGA) - August 1998

In August the GIGA adopted a statement that included the following wording: -

"Support the adoption of a mandate at Buenos Aires to redefine the way in which greenhouse emission cuts are currently shared between countries, following the principle of equity enshrined in the Contraction and Convergence analysis, and urge the summit of the Non-Aligned Movement countries meeting in Durban, RSA, to persist in demanding an equitable approach as a precondition for their participation in COP4 at Buenos Aires."

Non-Aligned Movement (NAM) - September 1998

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."

The GLOBE Southern Africa Network - August 1998

- 1. Members of Parliament and Members of the GLOBE Southern Africa Network . . . Support the adoption of a mandate at Buenos Aires to redefine the way in which greenhouse emission cuts are shared between countries under the Kyoto Protocol, following instead the principle of global equity enshrined in the Contraction and Convergence analysis,
- 2. Specifically work to ensure that all future development of the UNFCCC and its related instruments will be consistent with these interdependent principles of global equity and sustainability;
- 3. And rebut any recourse to "flexibility mechanisms" that are not derived from the interdependent application of these principles of sustainability and global equity;

International Federation of Red Cross & Red Crescent Societies - June 2000

World Disasters Report 2000 Box 7.2 A Climate of Debt" http://www.ifrc.org/

"On 1 March 2000, the world's media reported a story of hope amid the despair and catastrophe of Mozambique''s massive floods. For days, while the international response stalled, just a handful of helicopters plucked a lucky few stranded people to safety. Then a woman was found clinging to a tree to escape the water. She had been there for three days. Extraordinarily, in the minutes before her rescue, she gave birth. There was a ripple of inappropriate self-congratulation in the Western press.

The story diverted attention from the large but unknown number of deaths, the estimated *Imillion people displaced, the loss of countless livestock and crops, the immeasurable damage to infrastructure. Typically, poverty had moved large numbers of people into areas highly vulnerable to climate-related disasters.*

For a country still recovering from years of conflict and debt, the flood not only wiped out hard-won development gains, but set the country back far into the foreseeable future. In spite of its poverty and efforts towards reform, the servicing of foreign debts had been allowed to drain Mozambique of precious resources for many years.

Even following treatment by the latest improved debt-relief deal, known as HIPC II, current estimates suggest that Mozambique will still have to spend US\$ 45 million a year on debt servicing – more than it spends on either primary health care or basic education.

Yet, while highly indebted poor countries are pursued by creditors to service their foreign debts, industrialized countries are themselves responsible for a larger and potentially more damaging ecological debt. A debt for which no accounting system exists to force repayment. And those most responsible for the debt are least likely to suffer the consequences.

Reckless human use of fossil fuels – overwhelmingly by industrialized countries – has helped raise the spectre of climate change, which darkens everyone"s horizon. Acording to a letter co-signed in December 1999 by the under secretary of the US National Oceanic and Atmospheric Administration and the chief executive of the UK Met Office, "the rapid rate of warming since 1976, approximately 0.2 degrees Celsius per decade, is consistent with the projected rate of warming based on human-induced effects...we continue to see confirmation of the long-term warming trend."

But poor people in poor countries suffer first and worst from extreme weather conditions linked to climate change – a fact highlighted in the "World Disasters Report 1999". Today, 96 per cent of all deaths from natural disasters occur in developing countries. By 2025, over half of all people living in developing countries will be "highly vulnerable" to floods and storms. Ironically, these are also the people likely to be most affected by the results of financial debt. Mozambique was just the latest example. Late last year, the coasts of Venezuela and India's Orissa state suffered some of the worst storms and flooding in living memory, killing tens of thousands. Ever-worsening floods in Bangladesh left 21 million homeless in 1998. That same year, the El Niño weather phenomenon left its scars in droughts and floods from southern Africa to northern India, Latin America to the Pacific. Then, ironically, Mozambique had to prepare for drought. When Hurricane Mitch hit Central America, the Honduran president commented, "We lost in 72 hours what we have taken more than 50 years to build." According to the reinsurance giant MunichRe, the number of great weather-related and flood disasters quadrupled during the 1990s compared to the 1960s, while resulting economic losses increased eight-fold over the same period.

Geological history shows the earth gripped by natural cycles of cooling and warming. But now, because of human-driven accumulation of carbon dioxide in the atmosphere, we are moving beyond natural climatic variations.

To solve the problem or, at least, mitigate its worst effects, all nations will have to live within one global environmental budget. Emissions need controlling because the atmosphere, seas and forests can only absorb a certain amount before disruption begins. Currently, industrialized countries generate over 62 times more carbon dioxide pollution per person than the least developed countries.

No one owns the atmosphere, yet we all need it. So we can assume that we all have an equal right to its services – an equal right to pollute. On the basis of the minimum cuts in total carbon dioxide pollution needed to stabilize the climate, estimated by the Intergovernmental Panel on Climate Change to be between 60 to 80 per cent of the pollution levels reached in 1990, and assuming that we all have an equal right to pollute, rich countries are running up a massive climate or "arbon" debt. By using fossil fuels at a level far above a threshold for sustainable consumption, year after year the carbon debts of rich countries get bigger.

Ironically, poor people in poor countries suffer whatever the debt – whether from the smaller, conventional debts their nations owe, or from the larger, more threatening carbon debts being amassed by industrialized nations. There is a direct link between fossil-fuel use and the economic output gained from over utilizing these non-renewable reserves. Because of this, the carbon debt can be given illustrative estimates in economic efficiency terms. Such sums show heavily indebted poor countries in carbon credit up to three times the value of their conventional debts. G7 nations, however, fall US\$ 13 trillion into debt. Given the policy conditions associated with conventional debt, logic suggests that poor countries should now, in the face of climate change, be able to impose a reverse form of structural adjustment on those most responsible. In ,, Caring for the Future: Report of the Independent Commission on Population and Quality of Life", MS. Swaminathan comments that "what we really need is adjustment to sustainable life styles". The onus is on industrialized countries. Instead of old-style structural adjustment programmes for poor, indebted countries, a far more critical challenge will be devising sustainability adjustment programmes for the rich. Klaus Töpfer, executive director of the UN Environment Programme (UNEP), has called for a 90 per cent cut in consumption in rich countries to meet the challenge. Töpfer, in UNEP"s latest report, "Gobal Environmental Outlook 2000", pointed to global warming as one of the main threats to the human race, and added that "a series of looming crises and ultimate catastrophe can only be averted by a massive increase in political will".

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. Our collective survival could depend on addressing both.

C&C in the UNFCCC negotiating drafts for COP-6 - Nov 2000

ARTICLE 6 - Joint Implementation

Affirming that, in their actions to achieve the purpose of Article 6, Parties shall be guided by Article 3 of the Convention and, inter alia, the following considerations:

<u>Equity</u>: Equity relates to equitable emission entitlements. Developed countries shall contract greenhouse gas emissions to reduced levels with per capita emission levels in developed and developing countries coming on a converging path, so as to avoid perpetuating existing inequities between Parties included in Annex I and Parties not included in Annex I;

Recognizing that the Protocol has not created or bestowed any right, title or entitlement to the Parties included in Annex I to the Convention and in Annex B and that it has not created an international market system or regime;

ARTICLE 12 - Clean Development Mechanism

Affirming that, in their actions to achieve the purpose of the CDM, Parties shall be guided by Article 3 of the Convention and, inter alia, the following considerations: <u>Equity</u>: The principle of equity in the Convention must apply to all aspect of the CDM based on equitable development right and equitably well spread regional activity. The right to development of developing countries must not be affected adversely in any way. It must be insured that the CDM does not have any possibility or potential of perpetuating existing inequities between developing and developed countries.

<u>Equity</u>: Equity relates to equitable emission entitlements. Developed countries shall contract greenhouse gas emissions to reduced levels, with per capita emission levels in developed and coming on a converging path. The CDM shall not have dormant any possibility or potential of freezing or perpetuating past and present inequities between developed and developing countries. The implementation of the CDM should be based on equitable development rights, the sharing of mitigation cost surpluses from CDM projects between Parties included and not included in Annex I and balanced regional activity. Projects under the CDM shall not increase the costs of reducing emissions in host country Parties in the long term;

The limitation and reduction of emissions through CDM project activities does not lead to the creation or bestowal of any right, title or entitlement;

ARTICLE 17 - Emissions Trading

[Draft Decision]: Principles, modalities, rules and guidelines for emissions trading

COP - Recalling its decision 1/CP.3, in particular paragraph 5 (b), by which the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation were invited to undertake preparatory work to enable the Conference of the Parties serving as the meeting of the Parties to the Protocol, at its first session after the entry into force of the Protocol, to accomplish the tasks assigned to it by the Protocol, Recalling decision 7/CP.4 on a work programme on mechanisms to be undertaken with priority given to the clean development mechanism, and with a view to taking decisions on all the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol at its sixth session, including, where appropriate, recommendations to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session on, inter alia, relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability of emissions trading, pursuant to Article 17 of the Kyoto Protocol. Also recalling its decision 14/CP.5,

Affirming that, in their actions to achieve the purpose of emissions trading, the Parties shall be guided by Article 3 of the Convention and, inter alia, the following considerations:

<u>Equity</u>: Equity between developed and developing country Parties, including equity with respect to per capita greenhouse gas emissions, wherein developed countries must contract greenhouse gas emissions per capita and developing countries coming on a converging path, so as to avoid perpetuating existing inequities between Parties included in Annex I and Parties not included in Annex I;

Recognizing that the Protocol has not created or bestowed any right, title or entitlement to the Parties included in Annex I to the Convention and in Annex B and that it has not created an international market system or regime;

[Emissions trading is only for accounting of transfers and acquisitions of parts of assigned amounts between Parties included in Annex B for fulfilling their commitments under Article 3;]

IPCC 3rd Assessment, Policy (draft for 2nd Review) - June 2000

"By introducing issue of "equity" the Second Assessment Report broadened the IPCC policy discourse. The impetus for this expansion in the scope of the discourse was to include considerations not primarily motivated by the impacts of climate change and mitigation policies on global welfare as a whole, but rather by whether climate change and mitigation policies would exacerbate existing inequalities among and within nations. This is the basis for policy strategies that seek to promote greater equity in global use of resources by allowing the emissions of developing nations to expand while overall global emissions are reduced. An example of such an approach is the so-called "contraction and convergence" approach, in which convergence of per capita emissions is proposed to be pursued while global GHG emissions are constrained by the requirement of GHG stabilisation is pursued (Meyer, 1999). This focus leads from considerations of equity towards an agenda of sustainable development."

"An attractive and succinct formulation is in the concept of "<u>contraction and</u> <u>convergence</u>" (Meyer 1999). While the particular timelines advanced by various exponents of this view could be a subject of debate, the broad structure of the argument is quite general and unexceptionable. Over a finite period of time, aggregate global emissions would have to contract to levels consistent with the absorptive capacity of global sinks, while per capita emissions of Annex 1 and non-Annex 1 countries would have to converge in the interest of global equity. A possible outcome is illustrated in Figure 1.4, where initially, only Annex 1 emissions decline - to make room for the growth prospects and therefore rising emissions of non-Annex 1 countries - but over time as per capita emissions of both groups decline and converge, aggregate emissions also decline in some scenarios to a carbon-free situation."

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Sebastian Oberthuer and Hermann E Ott - Page 237 "Contraction and Convergence".... "one of the possible and likely the most prominent approaches" <u>http://www.kyotoprotocol.de</u> http://www.springer.de/cgi-bin/bag_generate.pl?ISBN=3-540-66470-X

'Private Planet' (Jon Carpenter, UK) D Cromwell Publ. Sept 2000.

"Under the auspices of the GCI, the London-based lobbying group he helped set up with friends from the Green Party, Meyer has been promoting a simple and powerful concept which has already had a major impact on senior politicians and negotiators. What it boils down to is that everyone in the world, according to the GCI, has an equal right to a share of greenhouse gas emissions. Taking as their starting point the IPCC figure of 60 percent cuts to stabilise atmospheric CO2 levels, Meyer and mathematician friend Tony Cooper calculated what level of greenhouse gas pollution each nation would be allowed. Their eye-catching computer graphics illustrate past emissions and future allocation of emissions by country, achieving equality per capita by 2030. After this date, emissions drop off to reach safe levels by 2100. This so-called 'contraction and convergence' in emissions has already become the climate policy of China, India and the whole of Africa. It may be the only approach that developing countries are willing to accept."

"Interest groups and efficient design of the CDM under the Kyoto Protocol"

A. Michaelowa, M. Dutschke, Publ: Int. Journal for Sust. Dev. 1, 1, 1998, p. 24-42

"The Kyoto Protocol (UNFCCC 1997) opened JI up also for cooperation between industrial countries. With developing countries, both forms are linked to the so-called "Clean Development Mechanism", which has been defined only rather vaguely (Art. 12). This paper outlines a structure for its design taking into account efficiency aspects. As the CDM is based on the commitments negotiated in Kyoto, we have to abstract from the equity question as far as commitments are concerned. Of course, to achieve equity, negotiations of future commitments should strive for an acceptance of the "contraction and convergence" approach that leads to an equal per-capita allocation in the long term (see Agarwal/Narain 1991, Global Commons Institute 1997, Byrne et al. 1998). The intergenerational approach would even go further in demanding that accumulated emissions (the greenhouse gas "debt" of the industrialized countries) would have to be offset by increased reduction (Hayes/Smith 1993, for a detailed calculation see Sari 1998). Here we focus on efficiency while noting the distributional implications of CDM projects especially on the local level in the host country. In this context it is important to take account of non-monetized externalities (Michaelowa 1997)."

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'Parliamentary Monitor' - August 2000

"The New Holy Grail" - David Chaytor.

'Environmental Finance - May 2000

"Why Contraction and Convergence is Key" - Aubrey Meyer & Tony Cooper. http://www.gci.org.uk/Articles/EnvFinance2.pdf

Newspaper Articles

The Guardian - 15th June 1990

"The leagues of cruel numbers." John Vidal

The Guardian - 18th June 1991

"An Urgent Message to the World." Letter - Aubrey Meyer et al

Scotland on Sunday - 17th Nov 1996

"Sharing fuel is the only way to save the planet." - Aubrey Meyer

The Independent on Sunday - 10th May 1998

"Maverick Musician could put a stop to Global warming."- Geoffrey Lean

Bangladesh 'the Daily Star' - 21st April 2000

"Silver Lining in the Dark Clouds" - Dr. Saleemul Huq Article re *"Contraction & Convergence"* and a strategy for Bangladesh at the climate change negotiations. http://www.dailystarnews.com/200004/21/n0042109.htm

FT International Edition - 20th July 2000

"Climate Debt Equity and Survival" - Andrew Simms http://search.ft.com/search/multi/globalarchive.jsp?docId=000720000359

Turning Point 2000 Newsletter

http://ecoplan.org/tp2000/general/tp-sep98.htm

The UK Independent, Letter from Global Commons Network - 24th December 1999

Multi-signature letter affirming adoption of C&C <u>http://www.gci.org.uk/indlet.html</u>

Earth Negotiations Bulletin, Kyoto High Point - 13 December 1997

Vol. 12 No. 76 - IISD Earth Negotiations Bulletin: http://www.iisd.ca/climate/kyoto/

"CHINA said that rules, guidelines and regulations for emissions trading would have to be studied, as suggested in the draft decision. He also warned that emissions trading may not contribute to actual reductions in emissions but shift reductions overseas. He expressed hope that the issue would not be made a condition for any figures.

Estrada said there was consensus that the COP should study the conditions for "the new animal" before it is allowed to "run wild in different places."

The US agreed there were areas in need of further consideration and supported the UK, but noted that emissions trading had been successful and cost effective in other fora. He said paragraphs 3.11 and 3.12 reflected the understanding Parties had reached.

INDIA also supported the proposals by the UK and Burkina Faso, noting the issue of entitlement. Supported by UGANDA, the PHILIPPINES, SAUDI ARABIA, ZIMBABWE, ZAMBIA, IRAN and COLOMBIA, INDIA suggested further amending paragraph 3.10 to include definition of rules ''for equitable allocation of initial entitlements for such emissions trading.'' ZIMBABWE proposed a reference to a global ceiling for entitlements based on <u>contraction and convergence</u> of emissions, to further address the question of equity."

Briefings

Global Commons Institute - January 2000

"Guesswork or Framework?" - Aubrey Meyer http://www.gci.org.uk/GUESSFRAME/GUESSFRAME.pdf

GLOBE International - November 1998

"A Short History of "Contraction and Convergence" " http://www.gci.org.uk/GLOBE/GLOBE's Brief History of C&C.pdf

Corner House Briefing -

"Climate and Equity, an International Agenda" http://www.oneworld.org/news/reports/dec97_climate.html

Christian Aid - 1999

"Who Owes Who?" - Andrew Simms <u>http://www.christian-aid.org.uk/f_reports.htm</u>.

Christian Aid - 15th May - 2000

"Unnatural Disasters" - A briefing paper http://www.christian-aid.org.uk/f unnatural disasters.htm

Institute for Global Dialogue - December 1998

"Climate Change Politics, Emission trading - the next diplomatic struggle" Richard Sherman, GEM South Africa, IGD Volume 3.3 http://www.igd.org.za/publications/global dialogue/official view/climate.html

Charter 99 - September 1996

"Why talking about the weather leads to global governance" Titus Alexander http://www.oneworld.org/news/reports/sep96_greenhouse.html

International Institute for Environment and Development - 1999

"Sustainable Consumption in Britain - the International Dimension." Nick Robbins http://carryon.oneworld.org/iied/scati/pub/detr.htm

World Rainforest Movement - 2000

"The Carbon Shop" - Briefing Paper for the - p 27. <u>http://www.wrm.org.uy/english/plantations/material/carbonshop.htm</u>

Population International - 1994

"Stabilizing the Atmosphere: Population, Consumption and Greenhouse Gases" By Robert Engelman http://www.cnie.org/pop/CO2/intro.htm

Population International - December 1998

"Profiles in Carbon" Robert Engleman - 1999 http://www.cru.uea.ac.uk/tiempo/floor0/recent/issue30/t30a2.htm http://www.populationaction.org/why_pop/carbon/carbon_index.htm

Petitions and Resolutions

Resolutions of GLOBE International (The Parliamentarians Network) since 1996

Calling for an equity-based international policy framework for global climate <u>http://www.globeint.org</u> and also http://www.globeusa.org/globeusa/pamphlet.html

Resolutions of the Environmental Justice Network Forum - S. Africa (1998).

http://www.gci.org.uk/GUESSFRAME/GUESSFRAME.pdf see page 31

Resolution of the Atmospheric Equity Group of South East Asia

http://ws101.cisti.nrc.ca/ceesp/pub/towards.htm

Multi-signatory Petition of the Global Commons Network (from Dec 1999)

http://www.igc.topica.com/lists/GCN/read http://www.gci.org.uk/indlet.html

'the Ecologist' Petition on Climate Change

http://www.gn.apc.org/ecologist/new%20site%2099/marchapril99-declaration.htm

United Nations Association UK 7 April 2000:

"We applaud the government's leadership role in the international climate change negotiations and urge HM Government to pursue a long-term framework for reducing global CO2 concentrations based on the principle of contraction and convergence to equal per capita emission levels world wide by a specific date to be negotiated."

The BYRD HAGEL Resolution

In July 1997 US Senators Byrd and Hagel tabled a resolution about the US involvement with the Kyoto Protocol. It rehearsed all their objections to what they felt was the 'flawed' character of the Berlin Mandate and the impending Kyoto Protocol.

Their fundamental objection was to the 'global apartheid' in the UNFCCC between the Developed Country Parties of Annex One who were to observe commitments to control their ghg emissions, and all the Developing Country Parties who were not required to observe such commitments. The Resolution, adopted with a vote of 95 in favour and 0 against, clearly allows "Contraction and Convergence".

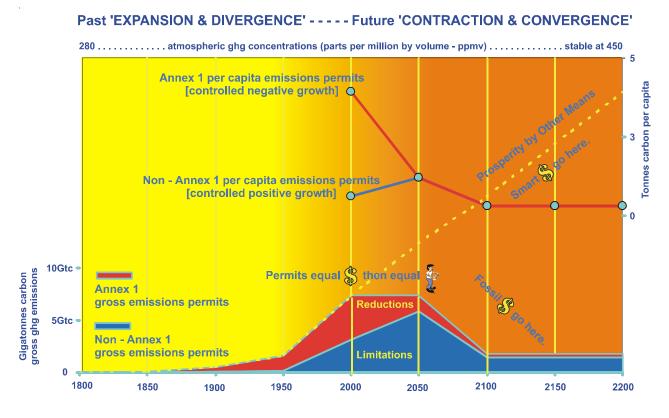
"Now, therefore, be it Resolved that: -

The US should not be a signatory to any protocol to, or other agreement regarding, the UNFCCC of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period."

The crucial detail in the Byrd Hagel Resolution is in paragraph 1A. Two defining distinctions are maintained. The first is between the Annex One Parties and the Developing Country Parties. The second is between 'limit' ghg emissions and 'reduce' ghg emissions. Limitation of ghg emissions is controlled positive growth of ghg emissions and reductions of ghg emissions is controlled negative growth of emissions. If we put these concepts together *"within the same compliance period"*, the paragraph can only

translate into a process of formal "Contraction and Convergence". Annex One Parties will reduce (or contract) their ghg emissions while the Developing Country Parties will limit their ghg emissions (so as to converge with Annex One Country Parties). Technically, not just rhetorically, there has to be a 'convergence factor' to do this. This can only emerge by design and consent and not by accident. The authors and supporters of this resolution have to face the unavoidable question.

THE USA, Byrd Hagel Resolution & "CONTRACTION & CONVERGENCE"



The US has affirmed:

- 1. That 'a global solution' to the 'global problem' of climate change is needed.
- 2. The objective of the UNFCCC [stabilisation of ghg concentration in the global atmosphere] is ghg emissions 'contraction' by definition [here 2000 2100].
- 3. That all countries must be involved in emissions control [here 2000 2200].
- 4. That a 'central organising principle' is applied to distribution (initially this was 'all countries will reduce ghg emissions by x% pro rata' [here 2050 2200]
- 5. The 'Byrd Hagel Resolution', where this central organising principle was modified to combine '<u>Reductions</u>' [controlled negative growth] with '<u>Limitations</u>' [controlled positive growth] giving 'convergence' [here 2000 2050].
- 6. That the 'commitments/entitlements' arising from this controlled 'contraction and convergence' must be 100% tradable.
- 7. That inter-emissions-budget-period borrowing must be allowed.

CONCLUSION

As there is no other way to combine all their requirements, *other than with anti-precautionary guess-work*, it is logical *minima* to observe that the US proposals are not in conflict with *"Contraction and Convergence"* to equal per capita tradable entitlements globally by an agreed date under a predefined global cap. It is also logical to ask what else is intended if not this?

Websites

More for records re 'Contraction and Convergence' and its advocacy.

BBC

http://news.bbc.co.uk/hi/english/sci/tech/newsid_808000/808537.stm http://news6.thdo.bbc.co.uk/hi/english/sci/tech/newsid%5F746000/746453.stm http://news6.thdo.bbc.co.uk/hi/english/sci/tech/newsid%5F793000/793211.stm http://news.bbc.co.uk/hi/english/sci/tech/newsid_450000/450053.stm http://www2.europarl.eu.int/omk/omnsapir.so/pv2?PRG=CALEND&APP=PV2&LANG UE=EN&TPV=DEF&FILE=980917

GCI

http://www.gci.org.uk

GLOBE

http://www.globeint.org/

CSE

http://www.cseindia.org

Charter 99

http://www.charter99.org Growing thousands of signatures supporting this document embrace C&C

Green party UK

http://www.greenparty.org.uk/homepage/campaigns/climate/gprespv4.htm

CAN - Climate Action Network

Includes advocates of "Contraction and Convergence" at COP4 http://np2.netplus.ne.jp/%7ecasa/paper/9811-can-cop4_short-e.html

Hansard

UK Parliamentary debates: http://www.parliament.the-stationery-office.co.uk/pa/cm199798/cmhansrd/cm9 80422/debtext/80422-04.htm. http://www.parliament.the-stationery-office.co.uk/pa/cm199798/cmhansrd/vo98 0715/debtext/80715-10.htm#80715-10 spnew6

Some Relevant COP position statements

Statement of the Government of France to AGBM2.

Position of the Government of Japan at AGBM5

http://www.unfccc.de/resource/docs/1996/agbm/10.pdf

Statement of the Governments of France & Spain at AGBM6 for the EU

http://www.unfccc.de/resource/docs/1997/agbm/02.pdf

Position of the Africa Group of Nations at AGBM7.

http://www.unfccc.de/resource/docs/1997/agbm/05.pdf para 26 see text at http://www.gci.org.uk/cop3/africa.html

Indian Government submission to SBSTA/SBI - 22/10/99

http://www.unfccc.de/resource/docs/1999/sb/misc10.pdf para 5 page 31

Position of the Non-Aligned Movement (NAM) Summit Aug/Sept 1998

Durban South Africa. Para 342 http://www.nam.gov.za/finaldocument.html.

Fourth Conference of the Parties (COP4) Buenos Aires

At the end of the two weeks of negotiations at COP4, the European Union and European Commission issued a press release that included the following: -

"The Conference adopted a Buenos Aires Plan of Action, including deadlines on a number of important issues, such as: -

- 1. financial mechanisms
- 2. further work on policies and measures
- 3. development and transfer of technologies
- 4. rules for governing the Kyoto mechanisms and a solid promise to discuss a number of particular concerns to the EU - such as supplementarity, ceilings, long term convergence and equity."

EU at the Bonn UN climate negotiations in June 1999

Also in June, while still leading the EU at the UN climate negotiations, the UK delegation almost specified, "Contraction and Convergence": -

"Agreeing simultaneously on long-term global stabilisation objectives, on principles for securing convergence of emission levels, and on emissions targets for an enlarged number of Parties, may be the necessary ingredients of the next step in the development of the Convention process."