Statements by Organisations

Compilation of References to the
Contraction and Convergence Policy Proposal
1997 - 2002

1997

August - The Africa Group of Nations

"As we negotiate the reduction of GHG, the countries of Africa believe that there should be certain principles that need to be clearly defined. 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."

1998

August - The GLOBE Southern Africa Network

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;

September - Non-Aligned Movement (NAM)

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."

October - European Parliament

This is a formulation of C&C by the Parliament that was carried by 90% of the vote. It reflects inter alia that nearly all European Environment Ministers have also publicly endorsed C&C.

"Calls on the Commission & Member States to take the lead in brokering an agreement on a set of common principles & negotiating framework beyond COP4 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;"

November - UNCTAD, Elements of a "Buenos Aires Mandate"

". . . meaningful participation by key developing countries will loom large in the post-Kyoto period. Much attention will focus on efforts to (a) further define and operationalise the Clean Development Mechanism (CDM) and to (b) agree possible criteria for the participation of developing countries in international emissions trading. Drawing on the Kyoto experience, some possible elements for a mandate regarding participation of developing countries in emissions trading could include the following: -

1 Participation in emissions trading should be on a voluntary basis. (While the trading system can be designed to benefit all developing countries, it seems that the larger industrially advanced, fast-growing developing countries might be the primary beneficiaries of the system).

2 Legally binding limits (for countries that wish to join the emissions trading system) should be based on emissions growth, not on emissions reductions. The principle was recognised during the Kyoto negotiations. Growth limits would enable the developing countries to continue to pursue their industrialisation but on a more environmentally sustainable basis. (In principle, emissions growth in Non-Annex One countries should be compensated for by deeper reductions by Annex One Parties leading to 'Contraction and Convergence' of per capita emissions between both sides).

3 Negotiations could be based on national offers from developing country Parties. Offers by regional groupings such as ASEAN and MERCOSUR should also be considered.

In addition to existing flexibility mechanisms, developing countries should be allowed to introduce 'partial caps' which, for example, could be based on industrial sector limits and coupled with joint implementation in the uncapped sectors, as a form of progressive restriction towards the imposition of a national cap.

1999

1999 - Christian Aid

Who owes who? - Climate change, debt, equity and survival

"The history of the climate talks is one of division between developing countries wanting entitlements to be proportional to population, whilst the industrialised countries want entitlements proportional to the size of their economies' GDP. The path to get from one to the other, from grand fathering' - unequal rights drawn down by historical precedent - to equal per capita shares, is contraction and convergence. Entitlements in this analysis are based on people rather than on economic wealth. "

Full document at: www.christian-aid.org.uk

2000

April - Charter 99 Declaration

Inter alia

" . . . . Declare climate change to be an essential global security interest and establish a high-level international urgent action team to assist the UN Conference of the Parties on Climate Change to set a scientifically based global ceiling on greenhouse gas emissions, to allocate national shares of permissible emissions based on convergence to equal per capita rights, and to work with governments, companies, international agencies and NGOs to cut emissions of greenhouse gases to a sustainable level."

Full list of signatories at: www.charter99.org/charter/signatories.html

June - Int. Federation of Red Cross & Red Crescent Societies

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

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

June - Royal Commission on Environmental Pollution (RCEP)

"The Need for an International Agreement", "Contraction & Convergence"

"3. The government should press for a future global climate agreement based on the 'Contraction and Convergence' approach, combined with international trading in emission permits. Together, these offer the best long-term prospect of securing equity, economy and international consensus (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' basic energy 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' emission quotas to follow a contraction and convergence trajectory. Over the coming decades each nation's allocation would gradually shift from its current level of emissions towards a level set on a uniform per capita basis. By this means 'grandfather 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 that kept the atmospheric concentration of greenhouse gases below a specified limit.

4.50 The upper limit on the concentration of greenhouse gases would be determined 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 intermediate 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 '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. 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 that 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. 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.

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 that 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 that had sold quota heavily went on to emit in excess of their revised entitlements.

2001

March 6 - Royal Institute of International Affairs

After PM Tony Blair's Green Speech, Mr Malhoutra Secretary General of the Rajiv Gandhi Foundation made a speech including the following remarks.

" . . . . the basis of global governance architecture for sustainable development must begin to be addressed.

What principles should determine issues such as entitlements, resource allocations, consumption practices and so on? The climate negotiations have given the issue immediacy. On what basis will drawing rights to global common goods such as atmospheric space be established?

Will developing countries be brought to the table on the principle of equity i.e. convergence of per capita emissions over an agreed period of time?

The impact of global warming will fall much more heavily on developing countries, introducing yet another factor of inequity in the North-South relationship. Climate change is not just about economics and keeping the world safe for corporate and personal capitalism, but about very complex ethical and social justice issues that civil society must address in a proactive manner. Where does the northern NGO community stand on this issue? And why is there not more public anger at the wanton and utterly irresponsible behaviour of industrialized countries? They have ignored the precautionary principle for a very long time and continue to pass the buck.

Nero fiddled while Rome burned: what shall one say of the West when Earth caught fever?"

[Full speech at http://www.gci.org.uk/articles/Malhoutra.pdf].

March 20 - UK Liberal Democrats

From Speech by the Rt Hon Charles Kennedy MP

Leader of the UK Liberal Democrats.

At Green Alliance 20th March 2001

" . . . So I think we have to think differently on climate change. And I want to flag up two areas, that I think we must consider ways of taking more effective action on climate change.

The first area embraces the principle of equity. On a planet where the most precious of commodities, a stable climate, is under threat, emissions could be rationed, through contraction of emissions, and convergence of national use of energy.

That means that every citizen could in the long run have an equal emission quota. There could hardly be a more obvious application of the notion of Universal Human Rights enshrined in the United Nations Charter. There are many different options for implementing a scheme. Quotas could be introduced gradually, and they could be tradeable. But whatever options are adopted, it is a proposal that may well offer the way forward.

The second area I want to flag up, is the role of Europe in climate change. Europe has shown the way before. In 1945, European nations realised that to revive yet also contain Germany there must be a community of equals.

Half a century later the key problem for the planet is climate change and Europe must again lead in the co-operative game. Europe should take the initiative to invite all the major nations and regions to form a Global Climate Community on the basis of commitments to reducing emissions and then ensuring that the emissions of different countries reach a happy medium. Contraction and convergence.

To be useful such an initiative must include from the start, not only Europe but major developing nations such as India. America and some others may not join at first. But they will have a major incentive to join or they will be excluded from the massive emissions market which will develop. Britain is in a unique position to ensure that the project gets off the ground. Britain's own experience and Atlantic and worldwide links could make it a valuable initiator of such a scheme."

full speech at http://www.gci.org.uk/speeches/Kennedy.pdf

March - UK Chartered Insurance Institute (CII)

A report by the Society of Fellows for CII on global climate change sees C&C as: -

"The most realistic way to bring about the required reduction in ghg emissions (which will have the combined effect of reducing the damage imposed on the insurance industry and encouraging the transition to renewable energy) is that proposed in the concept of 'Contraction and Convergence' (C&C). This concept is incredibly simple in its detail. Essentially, everyone has the right to emit an equal amount of pollution (in this case CO2) to the Global Commons (atmosphere). This would operate in much the same way as the envisaged emissions trading scheme to be set up within the Kyoto Protocol. Since economic progress is dependent on energy, the shortfall from 'Business as usual' energy consumption will need to be met from two directions: efficiency gains, and a rapid growth in renewable energy sources. It is clear from this that emissions trading can only be an intermediate stage, since the total volume of emissions must fall.The only blockage to this simple system is the absence of political will to 'step outside the box' instead of conducting a tortuous round of negotiations of the Kyoto Protocol. One way to unblock this impasse is to amass a large enough consensus of stakeholders behind the concept of contraction and convergence, persuading governments to supersede the Kyoto Protocol. The insurance industry is an obvious place to start such a campaign as it has so much to lose and so much to gain. If society continues down the fossil/Kyoto route, future economic losses are likely to become unsustainable: the current rate of increase in damage from natural hazards is 12% pa and the rate is accelerating. Given that the global sum of such losses was $100bn in 1999 (Munich Re, 2000), it would outstrip global GDP (growing at 3% pa) by 2065, if the trends persist. If the insurance industry rallies behind C&C, it not only reduces that risk, but it is well placed to invest in the future renewables market. In fact one could argue that as the insurance companies own the oil companies (through equity ownership), insurers form the only industry that has the collateral and the need to adopt the 'Contraction and Convergence' logic."

April - UNA UK

Resolutions backing Contraction and Convergence were passed at the

56th AGM of the United Nations Association in the UK, 20-22 April 2001.

8.10

"We applaud the government's leadership role in the international climate change negotiations and shared the disappointment at the failure to secure an adequate agreement at the last conference.

We urge Her Majesty's Government to pursue a long-term framework for reducing global CO2 concentrations based on the principle of Contraction and Convergence to equal percapita emissions levels worldwide by a specific date to be negotiated."

*** with the European Union Commission and the Commonwealth to create an alliance of countries committed to cutting CO2 emissions based on Contraction and Convergence;*

May - FoE Finland on Climate Equity

"The Whole Climate" Report, from Friends of the Earth Finland. The "Whole Climate Project" originated in 1999 with the three Finnish NGOs Dodo, FoE and Service Centre for Development Cooperation.

They take up the global equity/survival challenge of climate change and seek to resolve it in terms of environmental space and formulations of contraction and convergence.

Report available only in hard copy from: - http://wwwmaanystavat.fi

June - IPCC Third Policy Assessment

"A formulation that carries the rights-based approach to its logical conclusion is that of 'Contraction and Convergence'. (Chapter 1, 3.2). "The concept of 'Contraction and Convergence' is the entitlement of ghg emissions budget in terms of future emissions rights. Such a global future emissions budget is based on a global upper limit to atmospheric concentration of CO2, for instance 450 ppmv (contraction). This budget is then distributed as entitlements to emit CO2 in the future, and all countries will agree to converge on a per capita emissions entitlement (convergence). Level of contraction and timing of convergence are subject to negotiations." (Chapter 10, 4.5)

July - USS Research Report No 1

Universities Superannuation Scheme

Climate Change, A Risk Management Challenge for Institutional Investors

"Beyond Kyoto - 'Contraction and Convergence'

"It is important to recognise that any agreement can be only the first step in what will be a major journey. It is clear that even if the Kyoto targets are met, global emissions will continue to rise because of rapidly rising emissions in the developing world. Substantial further steps will have to be taken to curb emissions globally. Such cuts will inevitably begin to involve poor countries and at the same time rich countries are likely to have to commit to much more serious emission reductions themselves. As a result further emission reduction agreements are likely covering the period 2012-20 and beyond. Indeed, the IPCC in its first assessment reports in 1990 recommended emissions cuts of at least 60% to stabilise C02 concentrations at 1990 levels and thereby be likely to avoid serious climate disruption. Its subsequent reports have not altered this position. In the longer term, 'Contraction and Convergence' (C&C) is likely to become increasingly supported as a policy option. C&C was initially advocated by a small UK think tank, the Global Commons Institute (www.gci.org.uk), but has since gained widespread and authoritative support, including that of some poor country governments and also the recent Royal Commission on Environmental Pollution report which recommended that, 'the government should press for a future global climate agreement based on the contraction and convergence approach'.

Ironically, while C&C offers a more robust framework than that outlined by Kyoto, and addresses the issue of equity, it also meets the fundamental objection of the US in that it also requires commitments from the developing world. As a global operational framework it also avoids many of the technical problems of Kyoto (such as defining baselines for emissions trading in countries not subject to an overall target, or the extent of international emissions trading that is permissible). However, much will depend on the detail. Done well, C&C could provide a framework for a genuine, equitable, long-term solution to climate change, which reduces political risks and provides businesses and investors with the sort of predictable framework they prefer. But if agreement is hard to reach, C&C might serve to highlight injustices and end up exacerbating tensions. For example, some campaigners have argued for a third 'C': 'compensation' from the rich world for using up the climate's absorptive capacity. Whilst this claim is understandable, such a development could well become an emotive issue that could make agreement far harder to reach."

August - British Telecom

Mathis Wackernagel of the California-based Redefining Progress received a message from Chris Tuppen of BT (British Telecom) that said:

"I think there is lot of benefit that could arise from offering a per capita CO2 budget (eg the contraction and convergence theory of GCI).

But that's not to say that people shouldn't then have a choice in how they spend their CO2 budget. Such an approach would automatically lead to people selecting more energy efficient products and cause companies to change via natural market forces."

August - IPCC Third Policy Assessment

Chapter One section 3.2

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

Chapter Ten section 4.5

"The concept of 'contraction and convergence' is the entitlement of ghg emissions budget in terms of future emissions rights. Such a global future emissions budget is based on a global upper limit to atmospheric concentration of CO2, for instance 450 ppmv (contraction). This budget is then distributed as entitlements to emit CO2 in the future, and all countries will agree to converge on a per capita emissions entitlement (convergence). Level of contraction and timing of convergence are subject to negotiations with respect to the precautionary principle."

September - The Corner House

Corner House UK publication "Democracy or Carbocracy".

"In addition to slighting or ignoring many existing climate-friendly local practices, negotiators' technical advisers have also been slow to acknowledge an important and growing international climate movement. This movement demands both that the discussion of rights in the atmosphere be brought out of the shadows and that a scientifically meaningful programme of aggregate emissions cuts be undertaken. It calls for all countries to agree, in line with evolving wisdom on climate, how rapidly world greenhouse gas emissions should contract each year. It proposes then allocating permits to emit to all countries in proportion to the number of their citizens. Countries unable to keep their emissions in line with their per capita allocations could buy extra ones from those whose emissions were under the limit.

This equitable, flexible "contraction and convergence" framework has been endorsed by many Southern countries including China, India and the nations of the Africa Group; European government ministers including Michael Meacher of the UK, Jacques Chirac of France and Svend Auken of Denmark; insurance industry associations; and organizations ranging from the Royal Commission on Environmental Pollution to India's Centre on Science and Environment and Climate Net-work Africa. Unlike any other proposal on offer, the framework would enable the US's bluff to be called on all three of its objections to the Bonn climate agreement: that it doesn't commit the South to emissions limitations; that it's "unfair"; and that it doesn't address sources of future emissions.63 It would thus advance the discussion in a way which could result in a better future agreement."

It can be found at: - http://www.gci.org.uk/papers/24CARBO1.PDF

September - The Austrailia Institute

"Running From The Storm"

The Development of Climate Change Policy in Australia

> *" . . . . the longer time frame and the more broadly accepted ethical underpinnings of C&C ought to make negotiations less fraught than those leading up to and subsequent to Kyoto.*
>
> *Is contraction and convergence pie in the sky? There is no doubt that it is a radical approach with far-reaching implications for the management of the Earth's common resources. It would redraw the legal and ethical relationships between nations and initiate an era of supranational management of those environmental issues that cross national borders. Difficult, yes; but what is the alternative?"*

by Clive Hamilton, Director of the The Australia Institute (TAI), is published by University of New South Wales Press, September 2001.

October - Tellus Institute

Book: "Halfway to the Future" from Tellus Institute

> *"A good two pronged approach is a constraint on global emissions and a path toward allocation of emission allowances among the nations of the world on an equal per capita basis."*

available at: - http://www.tellus.org/HalfwayToTheFuture.pdf

October - UK Green Party

The Green party of England and Wales strongly endorses the GCI/GLOBE campaign for Conctraction and Convergence (C&C) as the key ingredient in a global political solution to the problem of Climate Change, and urges the UK and other governments use it as the basis for negotiations at the Conference of the Parties organised by the Intergovernmental Panel on Climate Change.

November - UNEP FI - Statement COP7

The UNEP Financial Institutions position paper

> *"4.1.3. Construct a long-term framework to reduce emissions globally in order to achieve the necessary transition to sustainability.*
>
> *The approach of Contraction and Convergence, which the IPCC TAR described as "the logical conclusion" of a rights-based approach,provides a possible example of such a basis."*

It is viewable at: - http://www.gci.org.uk/papers/FINALDRFTUNEPFI.pdf

The financial organisations associated with this are listed at the end.

November - NEF/Jubilee Plus

> *"... the US, committed by its own declaration of independence to human equality, can embrace the contraction and convergence model pioneered by the London-based Global Commons Institute.*
>
> *Contraction and convergence*
>
> *According to Sir John Houghton, chair of the Intergovernmental Panel on Climate Change, global greenhouse emissions need to be reduced by at least 60 per cent in less than 100 years. If governments agree to be bound by such a target, it is possible to calculate for each year over the next century the (diminishing) amount of carbon dioxide and other greenhouse gases the world can release, to stay on target for a 60 per cent reduction. This is the contraction part of the equation.*
>
> *Convergence describes how each year's tranche of the global emissions budget is shared out among the nations of the world. The process is managed to ensure that every country converges on the same per capita allocation of carbon dioxide – the same personal emissions "allowance" – on the same date. The date is negotiable – Houghton suggested 2030.*
>
> *Countries unable to manage within their allocations would, subject to agreed limits, be able to buy the unused parts of the allocations of other, more frugal, countries. Sales of unused allocations would give the countries of the South the income to purchase or develop zero-emission ways of meeting their needs.*
>
> *"Contraction and convergence" provides an effective, equitable and efficient framework within which governments can work to avert climate change. The countries of the North would benefit from the export markets created by restructuring. The whole world would benefit by slowing the rate of damage. Its potential as an antidote to global warming has been widely endorsed, not least by industriessuch as insurance which are in the front line of climate change. Even some of the more progressive fossil fuel producers have acknowledged that it may offer a promising way forward. But "contraction" has a disturbing sound to it – it implies less rather than more. The next chapter explains why less may, in practice, turn out to be more."*

http://www.jubileeplus.org/ecological_debt/Reports/War%20Economy.pdf

November - British Petrolium

In the BP Glossary

"Some have promoted the idea of 'contraction and convergence 'as a long-term strategy for managing global GHG emissions.Contraction refers to a global cap which would be set on worldwide emissions, together with an overall reduction trajectory for the century ahead.Emissions entitlements would be allocated on a per capita basis under the global cap and trading would be permitted.Emissions entitlements would converge over time towards equal per capita emission rights for all countries,so that total emissions allowances to countries are proportional to population. Proponents of the system of contraction and convergence argue that it is equitable (being based on population)and that it would be truly global,involving the participation of all countries."

http://www.bp.com/key_issues/environmental/climate_change/information_centre/glossary_of_terms.asp

November - *"Global Public Goods"*, Swedish Foreign Affairs

"Inter-generational justice also enters the climate change equation. Many of the rationales for taking costly action now in order to tackle a problem whose worst effects may not be felt for many decades, is that we have a responsibility to future generations. Both the 'precautionary principle' and the principle of 'contraction and convergence', which has entered the climate negotiations in recent years, are aimed at addressing these problems. They provide a road map for policy responses, by, in the latter case, establishing ceilings for GHG emissions above which dangerous climate change is likely, and then devising a global carbon budget within which nations have a per capita entitlement to use carbon. Moving towards an optimal and safe level of carbon usage requires that some nations, in the first instance developed countries, would have to contract their use of carbon-intensive activities and others, primarily developing countries, would be entitled to expand their use of fossil fuels to meet basic development needs and so converge towards a per capita entitlement, which applies equally to all countries."

December - UK Tyndall Centre

3.3 Strategic Assessments

"The climate change literature is studded with fragments of scientific evidence as the typical products of disciplinary, methodology-oriented and funding-driven research activities of rather small teams of investigators. Comprehensive surveys exploring, for instance, the climate vulnerability of an entire region or sector are extremely rare. Even the three IPCC Assessment Reports produced so far are not really integrated studies, but carefully edited compositions of thousands of disconnected results emerging from the research machinery in a more or less stochastic manner. What the crucial decision-makers request (and genuinely need), however, are strategic investigations that provide panoramic, but state-of-the art, views of complex issues, preferably condensed in a 10-page summary. The Tyndall Centre is, at present, the only institution in the UK which can generate such assessments that combine vertical integration (through problem and solution orientation) with horizontal integration (through trans-disciplinary capacity). There are many big topics that need to be approached this way, for example the differential vulnerability of the British coastline to sea-level rise and changing extreme-events regimes, the overall potential for slowing global warming offered by large-scale carbon sequestration, or the future design of the national built environment in view of climate change adaptation as well as climate change mitigation policies.

Some of the strategic assessments urgently needed could be initiated, or even drawn up, by special "Tyndall Symposia" convening the essential and representative communities on issues like: 1) nuclear power, 2) geo-engineering, 3) contraction-and-convergence. "

Full text available at: http://www.tyndall.ac.uk/research/research_strategy.pdf

December - Quakers

The Causes of War II

The Friend 14th December 2001

In our 7 December issue of The Friend, Robin Robinson reported on problems that contribute to bitterness and polarisation in the world. This article identifies an opportunity that could change the structure of the world economy and reduce the tendency to greater and greater disparities of wealth.

In less than a year, in September 2002, world leaders will be meeting in Johannesburg for the second Earth Summit. At Rio in 1992 attention focussed on potentially catastrophic environmental changes particularly relating to human effects on the global climate. After years of haggling the Kyoto protocol has eventually been signed this year by 178 nations with only the United States opposing it. A proposal is being considered for Johannesburg that could link climate concerns with our economic system. The Religious Society of Friends should do what it can to support that proposal.

The idea arises out of climate considerations so, before focusing on the truly radical economic implications, it is necessary to understand the climatic background. By definition, humans pollute and in recent years this pollution has been increasing exponentially. In the past, the earth's bio-systems could cope but this is no longer the case. Of particular concern is our effect on the atmosphere through the emission of greenhouse gases (GHGs). All scientists, except a few linked to the oil and coal industries, now agree that the emission of GHGs must be reduced, so a mechanism for rationing has to be found.

The basis for rationing in the Kyoto protocol is called 'grandfathering' – industrial countries are asked to reduce their present emissions by a certain percentage and their allocations can be traded. Grandfathering has two main faults. First, those that have caused most damage in the past have the highest allocation for future emissions, which is obviously unfair. Secondly, nations that are set to emit significantly in future, like India and China, are not part of the protocol.

A new approach being widely discussed is that the ration, the allocation for emission of GHGs, should be on the basis of the population of countries in 1990. To be fair, developing countries should have a much larger per-capita share than industrial countries, because the industrial countries have already caused so much damage; this is the argument being put forward by Brazil. Most others are willing to accept a compromise that the ration from now on should be on an equal-per-capita basis. This has been accepted by negotiators representing a large majority of the world's population including India and China, it has been specifically endorsed by President Chirac and our own Royal Commission on Environmental Pollution.

To repeat: everyone in the world should have an equal allocation for using the world's atmosphere; this would determine a country's allocation for emission of GHGs. And that allocation can then be traded.

In terms of economics, this is a startlingly radical proposal. India is responsible for just 1.6% of global emissions per-capita but its allocation would rise to 16%. The US ration would be 4.3%, not the 26% it emits at present. Incentives would work both ways: India would want to keep its emissions low so that it has more to trade. The US would try to reduce its emissions so that it needed to purchase less. Those would be the incentives for reducing emissions of GHGs globally. But the radical economic mechanism is that money would flow from rich to the poor nations as of right, not as arbitrary agreements on aid. A political formulation is called Contraction and Convergence – contraction *of the amount of GHGs emitted, and* convergence *to an equal-per-capita allocation over a period of years.*

There are plenty of mechanisms that work the other way: Interest charges mean that money flows from the poor who need to borrow to the rich who have funds to lend. All poor countries maintain dollar reserves which represent a massive interest-free loan from the poor to

the wealthy. Trade arrangements, imposed by the west, ensure that the price of commodities, many poor countries' only asset, are driven down relentlessly (in India this year the process is causing an epidemic of suicides). This is the only mechanism of a similar sort that would work in the interests of the poor. (incidentally Islam still accepts the biblical injunction that interest is not allowed and this is at the core of its quarrel with western capitalism).

In some countries, like Britain, the mechanism could work on an individual basis using smart-cards – every time you fill your car with petrol some units would be deducted. The proposal is called Domestic Tradable Quotas and would again flow money from the wealthy to the poor.

The destruction of the World Trade Centre and other suicide action, has forced us to recognise the intense loathing of the dispossessed for the hegemony of the dominant powers. This arrogant exercise of dominance on one side and loathing on the other must lie behind the 'asymmetric warfare' that is destroying any hope of peace. Much of the world is suffering from conditions closely analogous to slavery. These horrors should surely be at the top of Quaker concerns.

The Religious Society of Friends should adopt the concept of equal-per-capita allocation for use of the atmosphere and its formulation as Contraction & Convergence, and urge our government to make this its platform at the Earth Summit next year.

James Wells-Bruges, a member of Redland Meeting, Bristol

2002

January - SERA - "Socialist Environment and Resources Association"

International Climate Change Position (21 01 02)

"SERA recommends to the UK Government:

.....

5. Champion an accelerated round of UN negotiations leading to emissions reductions based on safe, global per capita limits to greenhouse gases (so-called Contraction and Convergence)....."

Available at: http://www.gci.org.uk/papers/globalclimate.pdf

February - Swedish Ministry of Foreign Affairs 2001

"Financing and Providing Global Public Goods; Expectations and Prospects"

"Inter-generational justice also enters the climate change equation. Many of the rationales for taking costly action now in order to tackle a problem whose worst effects may not be felt for many decades, is that we have a responsibility to future generations.

Both the 'precautionary principle' and the principle of 'contraction and convergence', which has entered the climate negotiations in recent years are aimed at addressing these problems. They provide a road map for policy responses, by, in the latter case, establishing ceilings for GHG emissions above which dangerous climate change islikely, and then devising a global carbon budget within which nations have a per capita entitlement to use carbon. Moving

towards an optimal and safe level of carbon usage requires that some nations, in the first instance developed countries, would have to contract their use of carbon-intensive activities and others, primarily developingcountries, would be entitled to expand their use of fossil fuels to meet basic development needs and so converge towards a per capita entitlement, which applies equally to all countries."

Full text at: http://www.ud.se/prefak/files/gpg.pdf

February - Delhi Sustainable Development Summit 2002

Challenges for governments, corporates, and civil society at Rio+10, 8 - 11 February 2002, New Delhi

"The UNFCCC addresses the equity issue through 'common but differentiated responsibility'.

Per capita energy consumption and GHG emissions of developing countries are far lower than that of the industralized world.

In a convergence of emissions at a sustainable level, developing countries can increase emissions to a safe limit while developed ones reduce to the same level."

Full text at: http://www.teriin.org/dsds/dsds2002/day4/plenary8.htm

February - Dutch Parliament

"It is left to the next cabinet (there will be national elections in the Netherlands in spring 2002) to develop a formal position on a preferred option for the future differentiation of commitments, but it closes off in stating that a distribution of global emission space on a per capita basis in the course of the century (2030/2050) seems an obvious choice."

[In Dutch, source: House of Parliament, second chamber, meeting year 2000-2001, doc. no. 27801].

February - Department for Trade and Industry - Inter Agency Group

"The Royal Commission on Environmental Pollution (RCEP) recommends that the Government should press for a future global climate agreement on a contraction and convergence (C&C) approach, allowing also for emissions trading.

It selects one path for achieving stabilisation of CO2 concentrations in the atmosphere at 550ppm that implies a convergence date of 2050. Many other paths to stabilisation at this level could be taken. The Government is keen to establish a dialogue on possible approaches to future target setting.

However, contraction and convergence is only one of a number of potential models, some of which may be more attractive to developing countries and still promote the objectives that we are striving to fulfil."

Full Text available at: http://www.gci.org.uk/UKGovernment/DTIIAG.pdf

February - Energy Review, UK Cabinet Office Performance & Innovation Unit

"The project's outputs will be a key input to the UK Government's future policy on security and diversity of energy supply and on climate change including its response to the Royal Commission on Environmental Pollution (RCEP) report on 'Energy, the Changing Climate.

The UK practices a 'leading' approach to climate change. This approach to climate change implies 3 separate policy timelines: measures to: -

1 comply with agreed targets;

2 prepare for future targets not yet agreed but probably involving not all countries and operating for limited time periods, and

3 prepare for a world of long-term emission limits agreed between all countries, possibly based on the principles of contraction and convergence."

.....

"The centrality of carbon and the climate change issue"

3.69 A "leading" approach to climate change implies three separate policy timelines:

** measures to comply with agreed targets;*

** measures to prepare for future targets not yet agreed but probably involving not all countries and operating for limited time-periods;*

** measures to prepare for a world of long-term emission limits agreed between all countries, possibly based on the principles of contraction and convergence. (16)*

3.70 There is no clear dividing line between these phases.

Post-Kyoto targets affecting the UK could be finalised by 2005 but agreement might take longer, perhaps a lot longer, and the scale of the next targets is uncertain. Likewise, it is possible that we could be in a world of long-term universal targets by 2010.

There is even a remote possibility of moving directly to the final phase from the current position.

3.71 In the same way, it is far from clear what the scale of future targets will be. The RCEP suggested that a 60% reduction for the UK by 2050 would be needed within a contraction and convergence agreement, but the exact figure is very uncertain.

All that is certain, whether we move to a contraction and convergence world, as suggested by the RCEP, or follow the guidance produced by the IPCC about global levels of emission reductions that will be needed to avoid dangerous climate change, is that developed countries will need to make very substantial cuts from current emission levels over the century ahead.

February - IIED/RING

International Institute for Environment and Development (IIED)
with the Regional and International Networking Group (RING)

"Even if the Kyoto Protocol is implemented in full, the impacts of global climate change will start being felt within the next few decades and the most vulnerable communities and countries are those which are already the poorest and least able to adapt to these changes.....

It is time now to refocus on the longer-term objectives of the UNFCCC, particularly its stated goals regarding sustainable development....

WSSD provides an opportunity to re-initiate the discussion on the larger architecture of the future climate regime. The goal of the post-Kyoto phase should be clearly tied to atmospheric stabilization with a defined focus on emissions limitation and a clear sense of the rules for the future entry of developing countries into the regime.

....

In all likelihood this will require moving to per capita emission targets and a 'contraction and convergence' policy scenario."

Available at:

http://www.gci.org.uk/papers/C&CIIEDShort.pdf

http://www.gci.org.uk/papers/C&CIIEDLong.pdf

February World Bank - Summary of the E-Discussion on the Environment and Poverty

Summary of the E-Discussion on the Environment and Poverty Linkages: Week 1 - February 1 – 7, 2002

4. Climate change, greenhouse gas emissions and environment

A binding environmental agreement that effectively and equitably reduces emissions calls for "Contraction and Convergence" (C&C) to be the framework in which this development should take place. The potential of C&C to use a deliberate poverty reduction strategy to arrest dangerous rates of climate change needs to be explored.

The big reinsurance companies (Swiss Re and Much Re) have kept records of estimates of the 'uninsured losses' from 'great weather disasters' over the last 50 years (such as Honduras, Mozambique, Orissa). These show rates of damages exceeding the economic growth rate by a factor of four. This is one reason why the Institutions of the UNEP Financial Initiative have come out in favor of arrangements such as C&C. It would be appropriate for the present discussion to took a look at the potential of this proposition.

Authors' Responses to the Summary of the e-Discussion on Environment and Poverty Links – Week 1

4. Climate change, GHG emission:

Thanks for drawing our attention to the approach for "Contradiction and Convergence" and providing several useful references to sites where this is further discussed. This is the kind of constructive feedback that we hope to get more of! We will pursue those as a team, and discuss how we might discuss this approach in the final version of the paper. In our final summary of the e-Dialog in July, we will come back to the details of this.

Jan Bojö

The World Bank

On behalf of the authors of the Consultation Draft.

March - World Bank Report - "Globalization, Growth & Poverty"

"Global warming requires international collective action. There are many ways of achieving effective restraint. The Kyoto protocol approach is for rich countries to set themselves targets for emissions reductions, and the recent agreement between European nations and Japan to move ahead with the protocol is a positive step forward. Looking further down the road, it is critically important to get at least all of the G-7 involved.

The Global Commons Institute, an NGO, has come up with an innovative proposal for how to do this. The proposal entails agreeing on a target level of emissions by the year 2015 and then allocating these emissions to everyone in the world proportionally. Rich countries would get allocations well below their current level of emissions, while poor countries would get allocations well above. There would then be a market for emission permits.

Poor countries could earn income selling some of their permits; rich and poor countries alike would have strong incentives to put energy-saving policies into place; and private industry would have strong incentives to invent new, cleaner technologies. One of the hopeful things about globalization is how an innovative idea like this can quickly gain currency and support."

April 18 - Christian Ecology Link

Contraction and Convergence:

1. Contraction and Convergence provides a framework within which the world's emissions can be reduced safely and fairly. It proposes that countries agree a safe global greenhouse gas emissions budget and agree a date by which all countries will have the same emissions

rights per capita. Countries unable to reduce their emissions by this date would be able to buy the unused rights of other countries, giving less developed countries the income to fund development in zero-emission ways.

The idea is well accepted as the best way forward by the experts. According to the Royal Commission on Environmental Pollution "The government should press for a future global climate agreement based on the Contraction and Convergence approach, combined with international trading in emission permits. Together, these offer the best long-term prospect of securing equity, economy and international consensus." The recent Third Assessment Report of the IPCC (Intergovernmental Panel on Climate Change) observes "...the formulation that carries the rights-based approach to its logical conclusion is that of Contraction and Convergence."

April 20 - The Foundation for the Economics of Sustainability

Feasta's Proposals for Global Monetary Reform

4. The supply of the new currency should be limited in a way which ensures that the overall volume of world trade is compatible with the most crucial area of global sustainability.

To deliver the maximum level of human welfare, every economic system should try to work out which scarce resource places the tightest constraint on its development and expansion. It should then adjust its systems and technologies so that they work within the limits imposed by that constraint. In line with this, an international currency should be linked to the availability of the scarcest global resource so that, since people always try to minimise their use of money, they automatically minimise their use of that scarce resource.

What global resource do we most need to much use less of at present? Labour and capital can be immediately ruled out. There is unemployment in most countries and, in comparison with a century ago, the physical capital stock is huge and under-utilised. By contrast, the natural environment is grossly overused especially as a sink for human pollutants. For example, the Intergovernmental Panel on Climate Change (IPCC) believes that 60-80% cuts in emissions of one category of pollutants - greenhouse gases, which come largely from the burning of fossil fuels - are urgently needed to lessen the risk of humanity being exposed to the catastrophic consequences of a runaway global warming. Feasta believes that this is the most serious resource threat facing humankind at present, and that, consequently, the basis of the new world currency should be selected accordingly.

***Contraction and Convergence** (C&C), a plan for reducing greenhouse gas emissions developed by the Global Commons Institute in London, provides a way of linking a global currency with the limited capacity of the planet to absorb or break down greenhouse gas emissions. Under the C&C approach which has gained the support of a majority of the nations of the world, the international community agrees how much the level of the main greenhouse gas, carbon dioxide (CO2), in the atmosphere can be allowed to rise. There is considerable uncertainty over this. The EU considers a doubling from pre-industrial levels to around 550 parts per million (ppm) might be safe while Bert Bolin, the former chairman of the IPCC, has suggested that 450 ppm should be considered the absolute upper limit. Even the present level of roughly 360ppm may prove too high though, because of the time lag between a rise in concentration and the climate changes it brings about. Indeed, in view of the lag, it is worrying that so many harmful effects of warming such as melting icecaps, dryer summers, rougher seas and more frequent storms have already appeared.*

Full Report available at: http://www.earthsummit-ireland.org/feastaproposals.htm

April 24 - DTQs

"There are a number of reasons for believing that Domestic Tradable Quotas (DTQs) could play an important role in combating climate change.

DTQs - with their annual reduction in the carbon budget and equal per capita emissions entitlements - are in keeping with the principles of contraction and convergence recently endorsed by the Royal Commission on Environmental Pollution."

See DTQ webpages: - http://www.dtqs.org/summary.htm

April 24 - EC Letter

"Thank you for your letter of 5th February and appended information on the contraction and convergence approach, which I studied with interest.

. . . . . .

The negotiations on the next commitment period will have to start by 2005 and to finish by the end of 2007, In these negotiations, all options to limit and reduce emissions in a fair and equitable way will be discussed. Contraction and convergence is one of the interesting alternatives in this regard."

Jean-Francois Verstrynge

Acting Director-General

DG Environment

European Commission

http://www.gci.org.uk/correspondence/Verstrynge1.pdf

April - Sky Trust

"Who Owns the Sky?" book by Peter Barnes, published by Island Press in 2001. ISBN 1-55963-855-9

On the question of global equity, which I have avoided in this book, ther reader may want to explore the Web site of the London-based Global Commons Institute. GCI is promoting the concept of "contract and converge" as a way to resolve the dispute between rich and the countries about how to share the global atmosphere. Under "con-tract and converge, the per capita emissions of the rich and poor would converge to equality over' say fifty years. During this time, global emissions would contract. But because poor countries per capita emissions are far below the rich countries' (the average American emits six times as much carbon dioxide as the average Chinese person), the poor countries' emissions would actually rise at first. Though considered a radical idea just a few years ago, "contract and converge" is slowly gaining acceptance. www.gci org.uk

May - C&C in Heinrich Boell Foundation Report for WSSD

The Heinrich Boell Foundation published a detailed report on the issues for the World Summit on Sustainable Development (WSSD) taking a clear position in favour of C&C beyond Kyoto.

"The vision of "contraction and convergence" combines ecology and equity most elegantly; it starts with the insight that the global environmental space is finite and attempts to fairly share its permissible use among all world citizens taking into account the future generations as well."

(Contraction &Convergence – The Global Solution to Climate Change, Meyer 2000)

http://www.worldsummit2002.org/publications/memo-mF.pdf

June 8 - Tyndall Centre UK -

"The climate regime from The Hague to Marrakech:Saving or Sinking the Kyoto Protocol?"

Suraje Dessai

4. The Bonn Agreement

"The other 'crunch issue' the Bonn Agreement tackles are the Kyoto mechanisms. Surprisingly, the text's language referring that emissions should be reduced "in a manner conducive to narrowing percapita differences between developed and developing countries" paves the way for a contraction and convergence framework (Meyer, 2001)."

Full report at: - http://www.tyndall.ac.uk/publications/working_papers/wp12.pdf

June 8 - Tyndall Centre UK - "The Use of Integrated Assessment: An Institutional Analysis Perspective"

Simon Shackley and Clair Gough

Box 1 - The Dilemma of Complexity

" . . . . by contrast, the 'Contraction and Convergence' idea developed by the Global Commons Institute has been rather widely adopted (Meyer 2000).

It connects well with the more explicitly political formulation of the climate change issue in equity terms of the North-South divide, and allows for national differences to be acknowledged in the short to medium term.

Its lack of integration (e.g. through not including analysis of the economic costs of mitigation) may be an advantage in its acceptability to policymakers.

Interestingly, the contraction and convergence concept has engendered significant political support as well as attracting support from assessment organisations (e.g. the influential Royal Commission on Environmental Pollution in the UK (2000)) without recourse to a complex numerical model.

Full report at: - http://www.tyndall.ac.uk/publications/working_papers/wp14.pdf

June 8 - Uranium Institute

"The Influence of Climate Change Policy on the Future of Nuclear Power"

Jonathan Cobb at 25th Annual Sumposium 2000

"In order for atmospheric greenhouse gas concentrations to be stabilised at a sustainable level it will be necessary to reduce missions by around 60% from the 1990 level. Advocates of a policy of "convergence and contraction", where developed and developing countries are to be allowed similar levels of emissions on a per capita basis, state that developed countries may have to reduce emissions by 80%."

Full statement at: - http://www.world-nuclear.org/sym/2000/cobb.htm

June - Wilton Park Conference "Climate Change: What Can Be Done?"

Roger Williamson

Report based on Wilton Park Conference WP663 13-17 May 2002:

Contraction and convergence

One candidate for the comprehensive framework and overarching vision for climate change policy is "Contraction and Convergence", advocated by the Global Commons Institute.[1] If this approach were to be adopted, it would require considerably more far reaching commitments than those developed within the Kyoto framework.[2] The key elements of contraction and convergence are outlined as follows by the initiator of the proposal, Aubrey Meyer:

> 'essentially, it has three steps: (1) an international agreement is reached on how much further the level of carbon dioxide (CO2) in the atmosphere can be allowed to rise before the changes in climate it produces become totally unacceptable. Fixing this target level is very difficult, particularly as concentrations are too high already. (2) Once the ultimate overall limits to CO2 concentrations has been agreed, it is a simple matter to use an estimate of the proportion of the gas released which is retained in the atmosphere to work out how quickly we need to cut back on the current global emissions in order to reach the target. This cutting back is the Contraction part of Contraction and Convergence. (3) Once we know by what percentage the world has to cut back its CO2 emissions each year to hit the concentration target, we have to decide how to allocate the fossil fuel consumption that those emissions represent.
>
> *The contraction and convergence approach says that the right to emit carbon dioxide is a human right there should be allocated on an equal basis to all of humankind. This might appeal to a majority of the countries of the world, but the over-consuming countries would have to be allowed an adjustment period in which to bring their emissions down before the Convergence on the universal level.*[3]
>
> *In more detail, the essential proposition of contraction and convergence has four elements.*
>
> *'After the initial agreement by countries for a reviewable global greenhouse gas emissions 'contraction budget' targeted at a precautionary, stable value for atmospheric greenhouse gas concentrations, the internationally tradable shares of this Budget are then agreed on the basis of convergence from the current situation; the shares should be broadly proportional to income. The convergence should be towards a target date in the budget timeline after which they remain proportional to an agreed base year of global population. Revenues 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. 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 event is the contraction part of the process.*
>
> *Convergence: On the basis of equity, convergence means that each year's ration of this global emissions budget is shared out so that every country progressively converges on the same allocation per inhabitant by an agreed date, for example by 2030. It recognises the need for access rights to the Global Commons of the atmosphere with the fundamental principle of globally equal rights for per capita, to be achieved by smooth transition.*
>
> *Emissions permit trading: Countries unable to manage within their shares would, subject to agreed rules, be able to buy the unused parts of the allocations are other countries. Sales of unused allocations would give the less developed countries the income to fund development in zero-emission ways. Industries in the developed countries would benefit from the export markets this restructuring would create.*
>
> *Sustainable growth: Contraction and Convergence does not place a straitjacket 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 for prosperity and sustainable development.[4]

The strength of this model, to quote the IPCC Third Assessment (2000), is that it represents '... the logical conclusion of a rights based approach'. Most of the objections which can be made questioning the practicality of the model are, simultaneously, objections to any scheme radical enough to achieve a long-term stabilisation of greenhouse gas concentrations in the atmosphere. Taking standardised per capita emissions as the basis for calculation fulfils the equity criterion, but raises concerns that populous countries, in particular China and India, will increase their emissions at the same time as developed (OECD) countries have radically to decrease theirs. Proponents of the contraction and convergence thesis contrast it with the current and approach of 'expansion and divergence' which is increasingly recognised as unsustainable. The fundamental dilemma of long-term climate change negotiations is that developed countries, and the main emitters among the industrialising nations of the South (particularly those with large populations including China, India and Brazil) are likely to resist signing up to targets which are sufficiently far-reaching to stabilise greenhouse gas concentrations at a sustainable level but, if these countries do not accept radical proposals for reductions to their emissions, the cumulative effects of global warming will continue. The impacts on all countries, but most obviously among developing countries (whose societies are more vulnerable) will be increasingly severe.

Much of the US opposition to the Kyoto Protocol approach has been focussed around the argument that it is unfair for industrialised countries to have to cut their emissions while industrialising countries are under no such restriction. The Byrd-Hagel Resolution, passed 95-0 in the US Senate in 1997, expresses this concern , but in the framework of seeking a solution to global warming by determining which countries should limit and which should cut their emissions. The approach is consistent with Contraction and Convergence.

July 2 - World Nuclear Association

" . . . . . A serious climate regime – if one is to evolve – must go far beyond Kyoto, by encompassing all nations and by employing some variation of the concept known as "contraction and convergence":

Contraction means that over the century ahead we must plot a path that will reduce overall global emissions by at least 50% – even as populations and economies expand.

Convergence means that, in this process, we must accept the principle that every person on Earth is entitled to an equal per-capita level of emissions.

Stated in this stark manner, the goal of 50% contraction seems draconian, while the principle of equal entitlement to emissions seems utopian. In fact, both concepts are eminently practical.

As to contraction, nothing short of a 50% emissions reduction offers any hope of averting catastrophic climate change. This cutback – entailing a 75% reduction in today's advanced economies – accomplishes no more than stabilizing global greenhouse gases at a level over twice that which existed just two centuries ago.

As to convergence, nothing other than the principle of equal entitlement offers a basis for the global consensus on which an effective climate regime must depend. Equal entitlement does not mean equal emissions; it is, rather, the basis for an allocation of rights on which a fair and rational emissions trading system can be built.

A system based on this principle – and, I venture to say, only a system based on this principle – can be designed to produce the sense of equity, the predictability, and the sound economic incentives needed for smooth transition into a clean-energy future. These incentives can work constructively in developed and developing countries alike.

In this schema, the sense of equity and predictability are created at the very outset of the

regime. A nation's population size at an agreed point would be the basis for establishing its long-term emissions ceiling, toward which it would be committed to move on a steady path.

To facilitate a smooth and economically rational transition toward that goal, emissions trading would enable countries and companies to chart their own best path – selling permits where possible, buying them when necessary.

The rate of convergence to a common level would be designed to ensure that, during the long transition, already-industrialized nations as a whole would find it advantageous to purchase emissions permits from countries less developed.

This capital flow could serve the common interest in sustainable development by financing clean-energy infrastructure in the developing world.

Building this regime is not beyond human wit. Indeed, its simplicity and feasibility stand in favourable contrast to the chaos, social dislocation, vast expense and human misery that unrestrained climate change could bring – and from which no nation would be immune."

Full text at: www.world-nuclear.org/speeches/bnes2002.htm

July - Dept For International Development - Select Committee Report

Setting (greenhouse gas) emissions targets fairly - "82. Both atmospheric stabilisation of greenhouse gases and the entry of developing countries into the climate regime are likely to require a move to per capita emission targets. [243] David Crichton and the Corner House both suggested DFID should consider the 'contraction and convergence' model set out by the Global Commons Institute. [244] Contraction and convergence is based on per capita emissions and offers an opportunity to address issues of equity. With emissions shared on a per capita basis, developed and developing countries could trade surplus emissions rights. [245] Advocates of contraction and convergence point to its inherent equity and its ability to bring together developed and developing countries in a single framework. However, contraction and convergence recognises that emissions from developing countries will grow and does *not* hold back their development in order to rectify damage caused by developed countries." [246]

July - Unrepresented Nations and Peoples Organisation (UNPO)

World Summit on Sustainable Development - Indigenous Peoples, Energy and Climate Change

"18. Balance narrow econometric and technical approaches in the climate negotiations by applying the principles of contraction and convergence, full and effective participation of indigenous peoples and civil society and complementary scientific and indigenous knowledge."

August - The World Council of Churches (WCC)

"Call to Action" to the WSSD,

" . . . . highlights two requirements:

1. Stabilisation of greenhouse gases in the atmosphere at a level that is in accordance with the overall objective of the Climate Convention.

2. A fair distribution of rights and obligations, i.e. establishing per capita emissions rights for all countries as proposed in the 'Contraction and Convergence' scheme.

The goal is to prevent increasing dangerous interference with the natural climate system. The IPCC Third Assessment Report indicates that the six Kyoto greenhouse gases, measured as carbon dioxide equivalents, should not exceed the level of 450-550 ppm.

This leads us to the conclusion that the next commitment period must start building a system for targets related to a specific "secure" greenhouse gas concentration in the atmosphere and an equity burden of the emissions that allows for this. We foresee targets related to per

capita emissions.

Proposals of the Global Commons Institute (United Kingdom) on "Contraction and Convergence" have gained support from churches and Christian development agencies. For high emitters this would lead to a step-by-step approach over the commitment period during which the emissions are reduced, while for the least developed countries and low emitters, a step-by-step approach for the possibility to increase emissions, while at the same time building up and investing in sustainable energy use, could be foreseen."

September - Department of Physical Resource Theory, Chalmers University of Technology, Göteborg University, Sweden

"An allocation approach based on contraction and convergence is suggested in the Paper. The allowances are assumed to follow a linear trend from their present per capita level for industrial regions and the per capita emission by 2012 for developing regions towards an equal per capita allocation by 2050. The per capita emission allowances are then assumed to follow the per capita emission profile towards the stabilization target."

September - "New Economy" from the Institute for Public Policy Research (IPPR)

"Towards a global new deal?- The World Summit on Sustainable Development 2002"

" . . . . perhaps the single most useful action that negotiators could take at WSSD would be to acknowledge explicitly the need for this logic to be applied to the most pressing environmental challenge of all: climate change. The London-based Global Commons Institute, which originated the concept of Contraction & Convergence, has assembled a wide coalition of support for applying the proposal to the area of climate change, which would involve defining a safe upper limit for greenhouse gas concentrations in the atmosphere (which would by definition require all countries to accept emissions targets), and a date by which national emission entitlements would reach per capita equality."

September - World Bank

The Bank's annual World Development Report (WDR) for 2003 published for WSSD.

The WDR 1992 was published in time for the Rio Summit. In this the bank said "grandfathering" emissions rights was "the most feasible option".

In the current report they say . . .

"How can emissions reductions—beyond those that pay for themselves—be financed? This remains the most contentious issue in climate change mitigation. In carbon markets, for instance, the allocation of emission allowances determines who pays for reductions. In the view of many, equal per capita allocation of allowances across the world—perhaps entailing transfers from rich emitters to poor countries—would constitute an equitable allocation. But such an allocation rule, if imposed abruptly, might disrupt the rich emitters' economies and thus would not secure their participation in the scheme. On the other hand, a strong link between past emissions and current allowances, applied globally, would hurt the development prospects of poor nations and thus be unacceptable. Hybrid allocation schemes that blend per capita and "grandfathered" allocations and shift toward the former over time have been proposed as a compromise."

October - "UNEP Financial Initiative - on C&C

A. Meyer: The Kyoto Protocol and the Emergence of Contraction and Convergence as a Framework for an International Solution to Greenhouse Gas Emissions Abatement (1999) in Homeyer and Rennings Manmade Climate Change-Economic Aspects and Policy Options, Physica Verlag.

A MULTIPLE-STRATEGY APPROACH

Governments, singly and collectively through the United Nations Framework Convention on Climate Change (UNFCCC), should adopt four strategies to tackle climate change, and involve all stakeholders in developing and implementing them. The four strategies are:

1. Operationalise the Kyoto process as a small but important first step in dealing with the problem of emissions internationally. This will allow all stakeholders to gain practical experience quickly.

2. Develop a range of policies and measures for implementation in national and regional jurisdictions, using a minimum of regulation to harness market mechanisms.

3. Construct a long-term framework to reduce emissions globally in order to achieve the necessary transition to sustainability. The approach of Contraction and Convergence, (see below) which the IPCC TAR described as "the logical conclusion" of a rights-based approach, provides a possible example of such a basis.

4. Promote a strong code of corporate sustainability, for business and the government sector, underpinned by the availability of key information on environmental, social and economic performance.

"Contraction and Convergence" (C&C)[1] which on the basis of precaution advocates the adoption of a "safe" steady-state level for GHG concentrations in the atmosphere. The approach demands that global emissions will contract progressively through a budgeting process to deliver the predetermined "safe" level of GHG concentrations. On the basis of equity and logic, these emission budgets will be distributed so that entitlements converge from today's very different national levels to a figure that is equal per capita for all nations by an agreed date. To satisfy the aim of cost-effectiveness, surpluses or deficits in emissions entitlements would be inter-nationally tradable, ideally redeemable for clean technology."