

"Contraction and Convergence" and the changing climate.

By David Chaytor MP - Chair GLOBE UK

On Friday the 16th of June the UK Royal Commission on Environmental Pollution (RCEP) published its 22nd report *"Energy - the changing climate"*.

They made 87 recommendations to the government. The third of these says: -
"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."

These are meaningful words. They concur in the UK with those of Michael Meacher and John Gummer, and many others including GLOBE UK and Alan Simpson MP who made the case for *"Contraction and Convergence"* in the Parliamentary Monitor two years ago. The Royal Commission's advocacy of this assists its growing international support.

In a nutshell, countries agree a reviewable global greenhouse gas emissions 'contraction budget' to match a precautionary and safe future stable value for the rising (ghg) concentrations. The internationally tradable shares in this budget are then agreed on the basis of 'convergence' from now, where shares are proportional to income, to a target date in the budget time-line after which they remain proportional to an agreed base year of global population.

The United Nations Framework Convention on Climate Change (UNFCCC) gave rise to the Kyoto Protocol in 1997. Interim negotiations to finish this have just halted in Bonn. So far business left unfinished in Kyoto is still unfinished. Charged with establishing the 'principles, rules and modalities' governing the Protocol's so-called 'flexible mechanisms' - such as international emission trading and the 'clean development mechanism' - negotiators struggle because these principles must be subordinate to the global objective and principles of precaution and equity on which the Convention is based.

Remembering this and acting on the Commission's 'global' advice, the UK Government could play a unique role in saving the Protocol from failure in The Hague. The stakes are high. If it fails, the 'sub-global' arguments that destroy it threaten the Convention itself.

If completed and ratified the Protocol will impose collectively slight but legally binding commitments only on 'Annex One Parties' to the UNFCCC, in other words on those from the developed country group only. They alone will have to reduce or limit their net greenhouse gas emissions by an average of 5.2% below 1990 levels, by the period 2008-2012. While quantitatively inadequate, this could be justified as a 'first-step'.

Because emissions control under the Kyoto Protocol is still restricted to the industrialised world only, the US is hostile to ratification, saying that it will be ineffective. The Byrd Hagel Resolution of the US Senate insists that developing countries must also reduce or limit their emissions if US ratification of Protocol to occur. In effect the US advocates *"Contraction and Convergence"*, as any other way of addressing this issue would replicate the very randomness to which they sensibly object.

Developing countries on the other hand, have correctly argued that as the industrial countries have grown rich emitting an accumulated 80% of the emissions to date, they

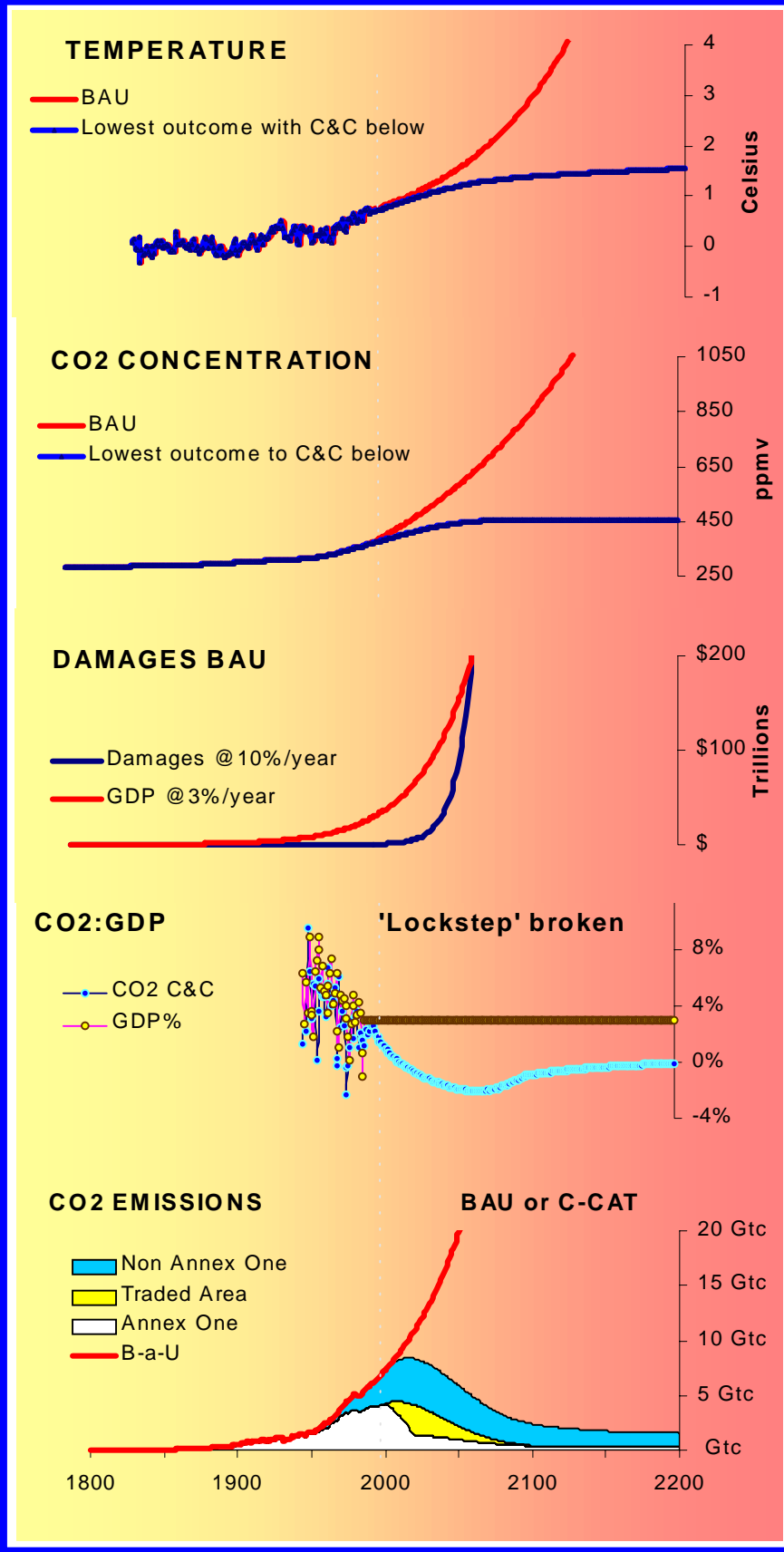
should 'take the lead' in cutting the emissions now without seeking to impose equal emissions responsibilities on the rest of the world unless and until the rights upon which these are based are recognised as equal as well. Saying that these must be 'equitable for all countries', many explicitly invoke the "*Contraction and Convergence*" approach. This stand off is resolvable quite simply in terms of "*Contraction and Convergence*" as the Royal Commission has also now affirmed.

As envisaged at present - by and for the industrial country group only - rules for emissions trading are ineffective because they are only sub-global in scope and thus inconsistent with the global governing principles in the Convention. This reflects the error of seeing 'cost-effectiveness' in terms of 'sub-global' emissions abatement cost only. In other words if - as at present - the question, "*how cheaply can my sub-global emissions be avoided or off-set?*" is answered, "*by growing low-cost trees in poor countries and by spinning under-commitment as over-achievement,*" this simply compounds controversy. As if to prove the point, the UK recently announced their option to sell an 8% 'over-achievement' against the UK's emissions reductions commitment agreed in Kyoto (1990 levels minus 12% by 2008 - 2012), to the US for around £100 million.

As the Royal Commission recognises, 'cost-effectiveness' is a charade unless and until it is understood first as global damage-cost effectiveness, designed to halt the damages caused by climate changes. This necessarily sees the cost-effectiveness of sub-global emission abatement as important but as subordinated to the global purpose of avoiding damages. As the UK example cited above reveals, such sub-global abatement-cost effectiveness actually neutralizes global damage-cost effectiveness by attempting to re-legalize the structural conditions that prolong the inequitable and thus unsustainable global status quo. As presently 'consolidated' for The Hague, the negotiating text out of Bonn could not be clearer on this point, or that "*Contraction and Convergence*" is seen by many as the obvious way to clarify and resolve this for this long term.

Munich Re-Insurers show climate change related damages rising at up to 10% a year over the last 40 years. The graphic demonstrates this amongst factors relevant to understanding why global damage-cost-effectiveness needs "*Contraction and Convergence*." We need very soon to collectively agree to enact this framework for solutions based on equity and survival *and faster than we create the warming problem we are trying to solve* otherwise our charades will end in tragedies.

A commitment in the Hague to proceed this way in future negotiations should be enough to rescue the process now for the larger process of rescuing the planet and all it's peoples through generations ahead. Tony Blair should be a natural champion in this cause.



Recorded surface temperature has risen by 0.9°C between 1860 and 2000. Future projections follow CO₂ emissions and atmospheric ghg concentrations (in ppmv - parts per million by volume). The red line shows how temperature will rise with a Business-as-Usual (BAU) 2% annual growth in emissions. The blue line shows the lowest possible climate sensitivity - a total rise of 1.5°C - assuming a 60% global emissions contraction by 2100.

The recorded rise in atmospheric CO₂ 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. The red line shows the worst case scenario. The best case sees this rise stabilised at twice today's level due to a 60% global 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 become uninsurable beyond the capacity of the insurance industry and governments to absorb and the damages will be beyond the capacity of societies to cope. Damages will rise for the century ahead even with emissions contraction, but the rate can be reduced if C-CAT is rapid and orderly.

For the past four decades, the output of CO₂ and GDP from global industry have been correlated nearly 100% (known as the 'lock-step'). Future GDP is projected here at 3% a year. Future CO₂ goes negative equal to the retreat from fossil fuel dependency shown below, that limits CO₂ concentrations to 70% above pre-industrial levels, shown above. Breaking the lock-step needs up to minus 5% annual emissions globally to reduce the probability of appalling damages.

The redline 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 with an agreed 'contraction budget' (here 680 billion tonnes of carbon). The internationally tradable shares of this budget result from convergence to equal per capita by an agreed date and population base year (here 2020). The 'traded area' is the difference between that and convergence by 2100 (here, 100 billion tonnes). Ideally these are avoided emissions as well due to investment of the proceeds of trade in zero-emissions technologies. Thus lowering risk and damages further.