

CapGlobalCarbon - a proposal for non-governmental actors to create a new independent global system as a back-up to the inter-governmental negotiations to make sure the reductions in global carbon emissions required by climate science are achieved

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Summary

The background to this is that the Planet's climate system is currently headed for irreversible instability, the main cause being increased CO₂ from human use of fossil fuels. To avoid runaway climate change, the aggregate global total of emissions from the use of fossil fuels needs to be reduced by something like 6% each year if we start reducing now, or by a greater percentage the longer we delay. The trouble is that the current system of inter-governmental negotiations under the 1992 United Nations Framework Convention on Climate Change (UNFCCC) cannot be relied on to achieve these reductions in the overall total of global emissions.

This Green House 'gas' points out that this is because the system lacks a vital component: a global regulator. To prevent climate change becoming irreversible, it is essential that an effective regulator of the aggregate global total of emissions from the use of fossil fuels is established, as a back-up to the system of international negotiations. This 'gas' describes the form this could take: a global Cap&Dividend scheme, whereby the aggregate global total of emissions from coal, oil and gas is controlled by what is known as an 'upstream cap', a cap on the introduction of coal, oil or gas anywhere in the world. The cap is implemented by a global licence scheme, managed by a global institution and enforced by each nation-state government banning the introduction into that country of fossil fuels not covered by a global licence. The number of licences is determined in compliance with climate science, the number being reduced each year. The global institution auctions the licences and these are then tradable. Fossil fuel extraction companies pay market price for the licences they buy and pass on the cost to their customers. The global institution arranges for the proceeds from the auction to be distributed to or for the benefit of people throughout the world in equal shares, so low carbon fuel uses benefit. The scheme thus contributes to social justice and should attract wide support.

As the current system of inter-governmental negotiations shows no sign of introducing any such scheme or any other effective system to regulate the aggregate global total of carbon emissions, and cannot be relied on to do so, this gas asserts that the initiative to do this has to come from the global non-governmental sector. A number of individuals and non-

governmental organisations, with a very wide range of interests and activities, need to discuss what institutional arrangements are needed and take responsibility for establishing these. This 'gas' is intended to start a conversation about how to do this: it proposes we establish an independent Global Climate Commons Trust to represent the whole of humanity including future generations and to design and administer a global Cap&Dividend scheme.

CapGlobalCarbon is the name we are using to refer to the proposal for the worldwide non-governmental community to establish an independent Global Climate Commons Trust with a remit to regulate the aggregate global total of carbon emissions in accordance with climate science. It is proposed to launch CapGlobalCarbon at a side event at the Paris meeting in December. In the meantime we need to prepare for that, publicise the proposal and seek to build the capacity to implement it.

Introduction

There is no need to repeat here what the scientists have said about the direction the global economy is currently taking in relation to climate change, or to stress the dire consequences, for all of humanity and probably thousands of other species, of failing to about turn. My purpose here is not to analyse the current prospects of achieving the necessary turnaround. Everyone wants the current inter-governmental negotiations to succeed: for the negotiators to reach agreement and for that agreement, together with the many bottom up initiatives around the world [1], to result in the global reductions of worldwide global warming emissions, in particular carbon emissions, necessary to avoid runaway climate change, the global total of emissions being all that matters in the context of avoiding calamitous change in the Earth's climate system. Some observers at the recent inter-governmental meeting in Lima, Lord Stern for example, consider it unlikely that an adequate agreement will be achieved at the crucial meeting in Paris later this year [2]. However for my purposes here I do not need to assess the chances of all current efforts combined somehow between them bringing about the necessary aggregate global reduction of emissions that everyone is hoping for. It is enough for me to state that there is at the moment no guarantee that this fundamental need will be met.

So this is the current position. We can reduce our own consumption of fossil fuels, as individuals or at the local level, we can invest in electricity generated from renewables, we can take part in local initiatives, we can campaign for more governmental action. But as

matters stand, nothing we can do alters the statement that there is at present no guarantee of achieving the reductions in fossil fuel emissions identified by climate science as necessary for the avoidance of runaway climate change.

This is a very worrying situation. The science on climate change is worrying enough. The knowledge that there is nothing really effective we can do about it is worse. I suspect a lot of people, my children for example, shy away from thinking about it, not because they are climate deniers but because they can't see light at the end of the tunnel.

This paper argues that this is a systemic problem. At the moment there is nothing we can do to make sure that irreversible climate change is avoided. But the problem is not a lack of political will, as is often stated. Effective action is currently blocked not by a lack of will but by the inadequate design of the current institutional infrastructure at both national and inter-national levels. In this 'gas' I suggest that the remedy lies in our own hands. Acting as global citizens on behalf of the whole of humanity and future generations, even on behalf of the whole of life on Earth, we can establish and put into operation an independent, science-based system to make sure that, whatever deal is negotiated between nation-state governments in Paris, the necessary radical reductions of the aggregate global total of carbon emissions are achieved. The new system would need the cooperation of nation-state governments to police it, but it removes the blocking power they currently wield. It would operate alongside and in cooperation with current inter-national structures but independently from them. It would enable political action outside the UNFCCC, such as people putting pressure on their own governments to cooperate with the new global system. As explained below, it would enable judges to grant injunctions against fossil fuel companies or governments.

This paper is an invitation to participate in this initiative. There are 101 ways in which anyone and any organisation can contribute. Up to now only the basic outline of the new scheme exists. Everything that is presented here is open to argument. We can only move forward step by step. How we do that is all to play for.

It should also be stressed at the outset that the author is only too well aware that climate change is a classic 'wicked problem', the kind of problem to which there is by definition no definite solution [3]. CapGlobalCarbon is not proposed as a solution to the climate change

problem. Many other strategies are required, including in particular strategies to draw down from the atmosphere much carbon that is already in place.

The current system is not suitably designed to address global problems

Why is there such a chasm between what we know about climate change and what we are doing, in particular in relation to fossil fuels? The basic contention put forward here is that it is because we have the wrong system, the wrong institutional infrastructure, to ensure that the necessary global reductions are achieved. I refer briefly to three flaws of the current system from this perspective:

- ⑩ The system is based on a view of the world as a collection of nation states, as opposed to the view of the human world as a single entity in which nation-states represented by their governments are important but not the only participants.

The world today is a world of nation states, an inter-state world, with the United Nations as the leading inter-national body. But that is not the only possible world. Climate change, a *global* problem above all others, can trigger the emerging of a *human world* in which nation-states begin to serve *the global human interest* in newly conceived systems of global governance and global accountability." Philip Allott, Professor Emeritus of International Public Law, University of Cambridge [4].

One of the consequences is that there is no adequate representation of the interests of the human family as a whole, let alone those of future generations of our species, or of other species and ecosystems.

- ⑩ As every law student learns, an agreement to agree "is no contract at all" [5]. The UNFCCC was indeed no more than a framework for future negotiation. Moreover whilst the stated objective was to stabilise greenhouse gas concentrations, no target level was stated, nor has one ever been agreed. Action on the global problem of climate change thus depends on agreement being reached through negotiations between the governments of countries with widely differing circumstances and widely differing, generally competing and often conflicting, interests. The now widely recognised result is that it is extremely difficult, perhaps even impossible, for the nations of the world to agree about something as contentious and complicated as climate change and what to do about it, let alone to make a binding agreement that satisfies the climate science.

- ⑩ It seems to the author that another consequence of the current system of negotiations between the governments of nation-states is that there is a confusion between two different kinds of problem. Not only is climate change an issue about the relationship between humanity as a whole and the Earth's climate system; it also involves issues of equity and climate justice: climate change and the need to address climate change give rise to massive moral issues both in terms of responsibility, mitigation and adaptation as between countries and blocks of countries and between present and future generations. These are difficult, emotive, intractable issues of immense importance to poorer countries and to the climate justice movement [6], but they are of little or no concern to the climate system as a whole.

The problem is that the current system is not designed to allow the global issues to be dealt with separately from the equity and climate justice issues. Indeed it ensures that they cannot be dealt with separately, even though it is in everyone's interests to address the global issues effectively and climate science has spelt out the necessary action very clearly. The global issues cannot be resolved unless the equity and climate justice issues are resolved.

In view of the systemic nature of the defects in the current system referred to above, we can see that there are limits to what politicians can do about it. People operating the current dysfunctional systems are simply not free to respond. So what needs to be changed is not the minds or attitudes of the politicians but the system. A new kind of system is required. CapGlobalCarbon is a project to bring that into being.

A feature of the existing system that is especially relevant in this context is that, whilst climate change is a global problem, there is at the moment no global-level institution or system of governance relating to climate change. The Global Climate Commons Trust described below is designed to fill this space.

A systems solution

In designing the partial reconfiguration of our climate governance system we have to take as given the nature of the current global economy and the nature of current nation-state governments, because however desirable it may be for the whole system to be transformed, there is no possibility of this happening fast enough. The reconfiguration

proposed here is limited to what is needed to enforce the radical reductions in carbon emissions from the use of fossil fuels called for by climate science. We are faced with an emergency. We need to design and implement a system that enables us to address it.

Under the current economic system, if left to itself, the world economy, due its design, tends to trespass beyond/outside ecological limits. So some governmental (in a wide sense, not necessarily nation-state) intervention, or system of regulation, is needed to ensure that the economy operates within ecological limits. The purpose of the proposal described here is to provide that necessary element of control in relation to carbon emissions from the use of fossil fuels, a system to act as a governor for the global economy to make sure that its impact on the Earth System is restrained from getting out of control.

What we need is something that is compatible with the current world system and the modern form of capitalism it embraces and which embraces it, whilst at the same time avoiding the flaws of the existing system, in particular, outcomes depending on negotiations between the governments of nation states and the influence of multi-national corporations.

Finally, the reconfiguration needs to be capable of fitting into and in due course being part of the wider transformation of the economy called for by numerous writers, reflecting and responding to ecological limits, complementing and being part of the much needed de-growth revolution. It needs to have an ethos of climate justice, reduction of inequality, cooperation rather than competition, and non-violent governance [7].

The origins of CapGlobalCarbon

The late Richard Douthwaite, author of *The Growth Illusion*, *Short Circuit* and *The Ecology of Money*, was one of those rare people who make it their business to see if they can do something to bring about radical change to create a safer and fairer world. In 2004, Richard, working together with members of the Irish systems think tank Feasta, came up with the idea of Cap & Share [8] and this was soon developed into a proposal for a global Cap and Share scheme administered by an independent global trust [9].

Readers of Gerry Wolff and Oliver Tickell's Green House 'gas' "Turn off greenhouse gases at source" will be familiar with the idea of an 'upstream cap' as the simplest and most certain way to control emissions from the use of fossil fuels:

- Permits are required to extract coal, oil or gas from the ground. The permits are denominated in carbon units.
- Based on climate science advice, the body administering the scheme decides on the number of permits it will issue each year. The numbers issued each year are progressively reduced in the light of climate science.
- Under Cap and Share as first presented the permits are distributed to or for the benefit of people everywhere equally. It may be more realistic to envisage a global auction of permits, the net proceeds being distributed equally to all global citizens. Such a scheme is generally known as Cap and Dividend.
- Fossil fuel extraction companies pay the open market prices for the global permits; and these can then be traded.
- They pass on the cost of permits to their customers.

Whether the permits are distributed to people equally or auctioned with the net proceeds being distributed equally, the point is that low fossil fuel users will benefit more than they lose in higher fuel prices. Hence the contribution a global Cap and Share or Cap and Dividend scheme would make towards reducing inequality.

This is the simplest way to make sure the necessary reductions in global fossil fuel emissions are achieved because there are far fewer suppliers than users. An upstream cap involves issuing permits to far fewer licensees than a scheme, such as the European Trading System, controlling various classes of user further downstream. The reason it is also the most certain way to make sure that the required reductions in emissions are achieved is that it impacts directly on total global supply and hence automatically on total global emissions. Unlike a carbon tax, it does not depend on volatile market forces to achieve the reduction in emissions called for by climate science, though because it will increase the price of fossil fuels it should be equally effective in incentivising change towards a zero-carbon economy.

The body administering a global scheme would invite all nation-state governments to play their part in policing the scheme by passing laws or making regulations banning the introduction of fossil fuels into their respective jurisdictions without a permit issued by the

global body and enforcing these by giving the necessary instructions to their customs or other officials.

The 'gas' mentioned above advocated an upstream cap system for the European Union Trading Scheme but the authors went on to point out that there would be several advantages in a global upstream cap system. This is what those authors wrote about that:

"There would be several advantages in such a global system, in addition to those already mentioned. With controls applied at the level of coal mines, oil wells and gas wells, there would be no need for legally binding national targets for reductions in emissions. And the problem of how to account for the fossil carbon that is embedded in imported products, sometimes called the problem of import emissions, would be effortlessly solved.

More importantly, elimination of legally binding national targets would do away with all the beggar-thy-neighbour complexity and horse-trading of international negotiations over what those targets should be. And it would also do away with the difficulties of putting whole countries in the dock and enforcing penalties if they fail to meet their targets. In general, it is very much easier to ensure that the operators of coal mines, oil wells and gas wells play by the rules. Of course, there would still be a place for national initiatives for cutting emissions, but without confrontations.

With controls on fossil carbon applied at source, there would be no need for special arrangements for two important and fast growing emissions sectors: international aviation and shipping. The operators of planes and ships would simply buy their permit-paid fuel in the normal way, with a suitable uplift for aviation fuel to account for the additional impacts of non-carbon emissions - like high altitude steam and nitrous oxide from jet engines.

Overall, an upstream system would give us greater simplicity and lower costs in administration, fewer anomalies, a smoother path for negotiations, and fewer opportunities for fraud. There would be much more effective control over emissions, driving innovation and the development of an efficient low carbon economy in Europe and the rest of the world."

Assuming the body administering the scheme is required by its constitution to announce its emissions reduction plans well in advance, even decades ahead, such a scheme should

be attractive to both governments and industry including the fossil fuel industry, and including those who want to see the role of governments reduced and global market forces allowed maximum scope within a global carbon budget independently approved and based on climate science. Governments are relieved from the obligation to reduce the emissions of their firms and consumers. Firms and consumers can spend their money how they chose.

Oliver Tickell advocated a global upstream carbon cap system in his book *Kyoto2* published in 2008 [10]. Also in 2008 Peter Barnes and others proposed a global upstream cap system administered by an Earth Atmospheric Trust [11]. Most recently Mutsuyoshi Nishimura, a retired ambassador of Japan in the UN Climate Change Negotiations, has taken up the same cause [12]. As he has written

"The upstream global market solution is compatible with individual requirements of different national circumstances. Because the solution is price-driven and not volume-driven, it imposes no volume-wise emissions constraints upon governments and firms. The uniform carbon price does not alter existing competitive relationship among different industries and sectors both in national and international contexts, and it encourages all firms that wish to excel in global competition on the basis of their comparative advantages."

The three upstream cap proposals referred to above envisaged the system being created within the UNFCCC system and administered by, for example, a coalition of central banks (Kyoto2), a new institution established for the purpose by governments within the UN system (Earth Atmospheric Trust) or, in Mutsuyoshi Nishimura's scheme, by 'the assembly of governments'. Peter Barnes et al saw that the trust they proposed would need to be independent but it was nevertheless assumed that it would need to be established by governments. The sad but significant fact is that none of those proposals has been taken up in the international negotiations.

The Feasta scheme was discussed by the Feasta Climate Change Group at our annual weekend in 2008 held in Totnes which I attended. I had learned from Philip Allott that the current system of global governance by nation-state governments is the product of history. It can adapt to meet the needs of today's world.

I also knew, both from my practise at the Chancery Bar in London and from having helped to establish a number of organisations with objects for the public benefit (including FIELD, the Foundation for International Environmental Law and Development, of which Philip Allott and I were trustees, and Feasta itself), that the necessary independent global institution required to run a global Cap and Share or Cap and Dividend scheme could be established by ordinary citizens and thereafter accepted by governments. The idea that an international institution could arise from a citizen's initiative is not new. There is the inspiring example of Henri Dunant whose actions, after he had seen 40,000 soldiers left dead or dying on the battlefield at Solferino in 1859, led to the formation of the International Committee of the Red Cross [13]. A parallel initiative today is the current project to create an International Court for the Environment [14]. Other examples of environmental governance beyond the state include the Forest Stewardship Council [15].

The CapGlobalCarbon concept takes shape

The small group of Feasta members working on launching this project envisage that the necessary new independent global institution, which we are calling a Global Climate Commons Trust, would be set up independently. We believe that this is in practise the only way such a body could ever be established; and that it is also probably the only way to make sure that this body is indeed independent.

The Trust could be established, for example, by a group of institutions and individuals. If established, for example, in England or Ireland, it could be constituted as a trust for public purposes. It would be a legal entity competent to develop relations with nation-state governments and the fossil fuel industry.

Under its constitution, the Trust would be charged with acting on behalf of humanity as a whole, including future generations, or perhaps the wider group of all living species or all life on Earth. It would be subject to the appropriate regulatory and court system of the country in which it is based. The law requires trustees to act with undivided loyalty to the purposes of the trust and they must act transparently. Obligations written into the constitution of the Trust to ensure transparency and accountability would be enforceable in courts of law.

The Trust would invite all nation-state governments to play their part in administering the global scheme, in effect to police the scheme within their respective jurisdictions, by

passing laws or making regulations banning the introduction of fossil fuels into their respective jurisdictions without a permit issued by the Trust and enforcing these by giving the necessary instructions to their customs or other officials.

It is that concept, an initiative by global civil society to establish a new global institution to administer a global Cap & Share or Cap and Dividend scheme, that we are calling CapGlobalCarbon.

Recent developments

CapGlobalCarbon is almost identical to the proposals in Feasta's publication *Cap & Share - a fair way to cut greenhouse emissions* published in May 2008 [9]. There are three important differences. The first two are differences in the situation. The third is a difference in what we are proposing.

The situation is different in two major ways. First, the science is both stronger, more solidly founded and more certain, than it was seven years ago. It is also telling us an even more serious story than it was then: the situation, according to the scientists, is even more serious now than was expected then, due partly to our failure to cut back on fossil fuel emissions and partly to positive feedback systems in the climate system having resulted in warming faster than had been generally expected.

The second big difference in the situation that favourably affects the prospects of CapGlobalCarbon being accepted is that it is now widely recognised that, as Peadar Kirby has written, "We are now into the endgame for humanity" [16]. There has been a sea-change in mainstream responses to climate change: there is now far more talk in international circles of the seriousness of climate change and the need for a transition to a zero-carbon economy. Cap&Share may have been an idea ahead of its time. Now its time has come.

The difference in what we are proposing is that we are now characterising CapGlobalCarbon, not as alternative to international negotiations under the UNFCCC or as something that could be organised within the UNFCCC, but as a safeguard against the possibility (to put it no higher) of the failure of the negotiations to achieve the net aggregate global reductions of carbon emissions required by climate science. There is no

need to reform the UNFCCC system. We are proposing an addition to, rather than an amendment of, the existing framework.

Now let us look a little more closely at some central issues, how CapGlobalCarbon would relate to the UNFCCC, how it would relate to nation-state governments and how it would relate to business.

What would be the relationship between CapGlobalCarbon and the UNFCCC?

The Global Climate Commons Trust would be established independently from the UNFCCC. There are various possibilities as to the relationship it then develops with the UNFCCC. It could possibly be incorporated into the UNFCCC regime to be agreed in Paris later this year, either then or later. Or, at the other extreme, it could have no relationship at all.

Article 2 of the Convention states its objective:

"to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.."

The first principle of the Convention, stated in Article 3.1, is that the states signing the Convention *"should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity..."*

CapGlobalCarbon would provide a structure to enable humanity to implement this principle. The words of the Convention recognise that climate change is not primarily an issue between states: it is primarily an issue for the whole of humanity. Adoption as part of the UNFCCC process is therefore at least a logical possibility and could be desirable provided the necessary independence of the Trust was not affected.

Past experience in relation to Kyoto2 and the Earth Atmospheric Trust is that those engaged in the UNFCCC negotiations are deaf to the possibility of an upstream cap. A more likely scenario therefore is that the Trust would use the UNFCCC as the forum for seeking to obtain the necessary agreement of individual nation-state governments to implement the Trust's scheme or schemes within their jurisdictions. It is possible that

UNEP, the United Nations Environment Programme, might be supportive of the proposals outlined in this paper and would be a valuable advocate. It is possible that a country - Bolivia is an obvious possibility - might champion this initiative.

Whilst incorporation into the UNFCCC is thus a possibility, and using it as a route to obtain the agreement of individual governments to police schemes managed by the Trust could be a great advantage and perhaps a practical necessity, it is important to stress that the formation of a Global Climate Commons Trust is envisaged as being achieved outside the UNFCCC process; and that implementation of a global Cap and Dividend scheme is not necessarily dependent on approval within the UNFCCC system as such.

How would CapGlobalCarbon relate to nation-state governments?

Clearly, the cooperation of nation-state governments (by requiring all imports or production of fossil fuels within their jurisdictions to be covered by a permit issued by the Trust) is crucial and is likely to be the most difficult element of these proposals to achieve. The assumption here is that we have to take existing governance systems as they are. We can however take advantage of the fact that nation-state governments do exist and that they do have power to enact the quite simple kinds of regulation required to police a global Cap and Dividend scheme. The big question is how to obtain their participation. Answering that question will be a key task for the CapGlobalCarbon project. Here are some relevant considerations:

- Inviting a nation-state government to cooperate will not be to question its authority; on the contrary, it will be inviting it to exercise its authority.
- What the Trust has to offer should appeal to governments in the grip of neo-liberal economics. A global Cap and Dividend scheme is designed to deliver the necessary reductions in the most cost-effective manner, making maximum use of market forces and with the least interference with the free market compatible with global compliance with the imperatives of climate science.
- Inviting a nation-state government to cooperate will complement and not be inconsistent with all that the government is already doing about climate change, whether of its own accord or through the UNFCCC.
- Only a global cap and licence scheme can be certain of achieving the reductions necessary to avert climate change causing massive damage much of the cost of which would fall on governments.

- CapGlobalCarbon would be by far the easiest way for all governments to do their bit towards meeting the global goal of climate mitigation, the goal governments committed themselves to in 1992.

The action required of each government is very simple. The Trust would simply request cooperation. However it would be open to the Trust to decide that the right for the population of each country to receive its per capita share of the net proceeds of the auction sale be made conditional on that country's government agreeing to police the scheme within its jurisdiction. This would make the scheme attractive to the vast majority of countries.

Whilst therefore the participation of nation-state governments will be crucial, it may be less difficult to achieve than might be feared. Some countries, for example the ten former country members of UNEP's Climate Neutral Network [17] and countries that took part in the Cochabamba Conference in 2010 [18], may well welcome the scheme from the outset.

The need to achieve the cooperation of nation state governments will provide an opportunity for climate activists and other supporters of CapGlobalCarbon in all countries to put pressure on their own governments to agree to enforce the permit system within their respective jurisdictions. This is likely to be a much easier campaign objective than trying to influence the negotiations under the UNFCCC.

As pointed out below, the global permit system would enable judges to make court orders against governments, requiring them to enforce the licence scheme within their borders.

Readers may well be thinking: the probability is that many powerful governments will decide not to cooperate. How would the Trust deal with that situation? That's a good question and the Trust will have to answer it in due course. At this stage, these points can be made:

- ⑩ The Trust's scheme will only be effective to ensure that the necessary global reductions are achieved if in fact all nation-state governments enforce it within their borders.
- ⑩ But there is no need for the Trust to win the cooperation of all governments before launching a global scheme.

- ⑩ Having set up a global scheme - ie having set the global cap based on climate science and having auctioned the licenses available on that basis - there will be several ways of bringing pressure to bear on governments which have not agreed to cooperate, for example:
 - ⑩ campaigns by the population of the country directed at their own government
 - ⑩ legal actions by communities threatened with damage from climate change - see below
 - ⑩ international pressure, within the UNFCCC or outside it.
- ⑩ A partial scheme, covering only countries which had agreed to cooperate, would be inadequate by definition and likely to be fraught with difficulties.

The writer believes that it is one of the attractions of CapGlobalCarbon that it does what the current system, because of its design flaws, fails to do, namely be a global regulator and only a global regulator. It can be set up as such at once, and look for support as such.

Would CapGlobalCarbon be attractive to Business?

Answering this question calls for more research. However, perhaps surprisingly, it could well be, even to the fossil fuel industry. It is important to remember that the project outlined here is limited to the issue of achieving the radical global reductions of carbon emissions required to avoid calamitous climate change. That is for the benefit of everyone, including the staff and owners of corporations. The scheme proposed involves minimal interference with market forces. By limiting the supply of fossil carbon to the world market and leaving it to the market to put a price on the available supply it meets the objectives of mainstream business organisations such as the OECD [19] and the Prince of Wales's Corporate Leaders Group [20] calling for a price on carbon. All other governmental responsibilities in relation to climate change would remain untouched, for example policies to promote energy saving and the production of renewables and policies relating to land use. Many other issues need to be addressed by governments [21]. Indeed, due to the conflict between a global scheme limiting the amount of fossil fuels available and the current economic system's need for growth, governments would also have to take additional actions to prevent the drastic reductions in the supply of fossil fuels likely to be required from causing economic collapse.

A number of industries are likely to be in favour of the CapGlobalCarbon, for example the non-carbon energy industries and the insurance industry. Pension funds invested in the oil industry should also be in favour.

The social justice element of CapGlobalCarbon

For CapGlobalCarbon to succeed it will need a very wide and strong support base. This will need to include many interests for whom climate change is not necessarily in the forefront of their minds. To people who are constantly dealing on an immediate basis with life-and-death challenges it is easy to see why climate change could seem like a less-than-urgent problem. It would be much more difficult to get CapGlobalCarbon off the ground if it did not have a strong social justice element.

Fortunately, the auction of the global licences to bring fossil fuels onto the market anywhere in the world would be likely to produce substantial sums to distribute to or for the benefit of everyone in the world in equal shares per capita. A great deal more research and discussion is needed to work out how the distribution would be organised. In general terms however it is clear this would tend to reduce both inequality and poverty. We hope that this prospect should attract support for CapGlobalCarbon from thousands of NGOs and communities around the world and their direct participation in establishing and organising the work of the Global Climate Commons Trust.

It is not often that responses to climate change are seen as having an immediate positive potential. CapGlobalCarbon can be presented as such.

The possibility of supportive legal actions

Court actions may have an important role in bringing pressure to bear on the fossil fuel industry and governments, especially when combined with CapGlobalCarbon. Given the inadequate performance of the political process, legal experts are looking at ways in which litigation might be a way "to overcome the deadlocked positions right now" [22]. The law may now be the only branch of governance capable of standing up to and having authority over the fossil fuel industry. There are some parallels with asbestos litigation and suits against the tobacco industry [23].

Those who have studied climate litigation state that the type of legal action most likely to succeed is one claiming injunctive or declaratory relief, albeit to date no such relief has been awarded against a fossil fuel producer. But, as Michael Faure and Marjan Peeters

have pointed out, "a difficulty with injunctive relief is that it is not always very clear what Plaintiffs can and do specifically seek and consequently what courts could order" [24]. This is where the system of global control of fossil fuel production described in this paper is likely to come in useful.

Suppose, for example, a coastal community sued a number of fossil fuel producers for a declaration that they were contributing to an increasing risk of sea level rise certain to cause damage to the plaintiffs; and suppose the judge was minded to find against the defendants. It is not clear at the moment what relief the judge could grant. The judge might be minded to grant an injunction to reduce production, but by how much?

Suppose however that a Global Climate Commons Trust had been set up and a global Cap and Dividend scheme had been established, the judge could order the defendants not to sell fossil fuels without a licence from the Trust.

That then is the form of relief the claimants could seek. The point of the action would then be to gain the cooperation of the fossil fuel suppliers in the operation of a scheme to bring about the radical reduction in global carbon emissions called for by climate science, for the long term benefit of everyone.

As Jaap Spier has observed, "if injunctive relief were to be granted by the courts, that relief should apply to enterprises worldwide, thus creating the necessary level playing field"[25]. The global system proposed in this paper, if established and widely supported, would provide the necessary level playing field.

Legitimacy and competence

"All governments rest on opinion." James Madison

This paper has outlined a way for humanity to meet its need to achieve radical reductions in the global aggregate of fossil fuel emissions. The emphasis has been on the need for a different kind of governance for this particular purpose. The new system proposed here would avoid some of the problems with the existing system: it would be free from the growth imperative and the dominance of the fossil fuel industry; it would not depend on nation-states arriving at agreement by negotiation; it would be free from political pressures such as elections. A Global Climate Commons Trust, perhaps established by a group of

well-known institutions and individuals, could well prompt a broad popular movement in support. Thus the creation of a new institutional infrastructure might enable political action currently blocked by the existing system.

The question remains: how could a newly-formed institution claiming to have a global remit but created outside the existing governance system earn the legitimacy needed to carry this through? The practical test of legitimacy is general acceptance [26]. A Global Climate Commons Trust, especially if founded by respected organisations and individuals and also well-resourced, would be able to claim a tentative kind of legitimacy from the outset on the grounds that it constitutes a reasonable initiative to provide an effective way of addressing the concerns of the public about climate change, given the failure of current inter-national processes to address this grave danger effectively. It can be argued that the assumption underlying the 1992 Convention, the idea that action to address the global problem of climate change was something states had to reach agreement about before a global limit could be set and enforced, was simply wrong. The Trust can assert that it is not usurping the function of some other legitimate body; the global community, it can be claimed, never gave the United Nations authority to handle our relationship with the Planet's climate system; adding that the UN's record in playing this role, which it took upon itself, has not worked effectively. The UN may still have possession of the role, but in many people's eyes at least, it no longer has legitimacy in this sphere, if it ever did.

Whether the Trust manages to win legitimacy for itself only time can tell. It probably depends on whether this institution succeeds in winning the support of a critical mass of worldwide civil society and the collaboration of nation state governments. Most governments can be expected to ignore it and then oppose it before finally coming on board. However, as mentioned above, there are some that might support from the outset.

Getting CapGlobalCarbon off the ground

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." Margaret Mead

The proposal described in this paper cannot be implemented unless a number of institutions and individuals work together to get it off the ground. They will need to agree shared purposes and principles, what Dee Hock called the genetic code of a purposeful

human system [27]. Here the purpose is clear: that of enabling humanity to achieve the necessary reductions of total global carbon emissions in time to avoid run-away climate change; and doing so in a way that benefits the poor. Although this particular initiative is new, and will require its own process to agree principles, many of the principles underlying it are already widely supported, for example the Bolivian Universal Declaration of the Rights of Mother Earth adopted in April 2010 at Cochabamba, Bolivia [28]. In the author's opinion, given that many powerful players in the mainstream of politics and the global economy may be minded to oppose it, CapGlobalCarbon is most likely to be successful if its principles include transparency, accountability and the rule of law, and if it also operates from the outset in a non-confrontational and cooperative way.

Can we make CapGlobalCarbon succeed? It comes down to political will. But not the political will of governments: the outcome now depends on the political will of the human family, the will to work together as members of the human family. And to establish the systemic structures we need in order to be able to organise our family affairs as a human family.

We can together see the climate crisis, which nation-state governments were not designed to deal with, as an opportunity to create the necessary, minimal required, global institutions to ensure that we live within limits. Instead of seeing CapGlobalCarbon as an extra layer of governance, it should be seen as a system designed to meet a need (global system designed and put in place to address a particular global problem) and to do so in a way that involves the least possible governance.

It is human activities that have brought the planetary climate system perilously close to tipping points beyond which nothing that our species could do would be able to reverse the system's descent into climate chaos where many species, possibly including our own, and many habitats would be driven into extinction. The wonderful world we know, the product of ten thousand years of climate stability, would be transformed out of recognition.

However our species also has the awareness and understanding to recognise that this is the future towards which the climate is now plunging; to know that this is caused by global warming due mainly to the use we have made of fossil fuels; to understand that this in turn is the natural consequence of the economic system on which we are currently hooked; and to realise that the danger could be greatly reduced, hopefully avoided altogether, by drastically reducing the annual emissions from the use of fossil fuels.

This 'gas' asserts that we also know how we might go about doing that. Any reader interested should visit www.capglobalcarbon.org

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