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**A SOCIAL LIFE FOR CARBON?: COMMODIFICATION,
MARKETS AND CARE**

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A Social Life for Carbon?: Commodification, Markets and Care

Unlike the wishes of many—or the prognostications of some—the ‘privatisation of everything’ (Watts, 1994) has yet to be a *fait accompli*. And, indeed, this is even true in the continuing hotbed of neo-liberal capitalism that is the USA, whereby efforts to instantly develop one of the largest markets in recent history—in the form of purchasable, own-able and trade-able CO₂ emissions—was successfully buried under the faux-populist tide of the Tea Party. Cap and trade was turned into shouts of ‘Cap and Tax!’ by the likes of Sarah Palin, her fellow Mama Grizzlies and other Tea Party minions—in conjunction with a rather compliant US media—and the jig was up. Clearly, much of the writing on capitalism and nature and the nature of (neo-liberal) capitalism argues that commodification, privatisation and the ‘enrolment’ of nature into these processes is anything but complete, uncontested, straightforward or even (e.g. Mansfield, 2008; Smith, 1984; Castree, 2003, 2010a, 2010b; McCarthy and Prudham, 2004; *Antipode*, 2010; Bakker and Bridge, 2006). Yet this death knell for a carbon market in the US is at least somewhat interesting given that many calling for its head were arguably to the right of Reagan/Thatcher and/or at least nominally libertarian, if the continuous mouthing of the phrases ‘free markets’ and ‘freedom to choose’ counts as a form of libertarianism in contemporary America. The Tea Party cry of ‘get big government out of the way’—and the specific government, big or small, fronted by the likes of Obama—suggests an unwillingness to understand that so-called free markets and consumer choice fundamentally depend on governments for their functionality and very existence; but what this also suggests is that for many, even the magic of the (carbon) market is now too much regulation in this tide of extreme libertarianism which is very much one part Social Darwinism married to two (even stronger) parts (anti-environmental) corporatism. In short, in a continuing era of the Thatcherite ‘there is no alternative’ to markets and neo-liberal, consumer capitalism,¹ the fascinating situation whereby carbon markets were successfully pitched as *too alternative* has, at least for the time being, left them to the wayside of both the roll back and roll out of a neo-liberalist project designed to mitigate climate change. The growing ‘carbon economy’ is anything but ‘normalised’ (cf. Boykoff et al, 2010; see also Boyd et al, in press; *Theory, Culture and Society*, 2010; *Environment and Planning A*, 2009) across different spatial and socio-economic circumstances and contexts and especially now in the grip of US-led Tea Party-ism.

At about the same time that the creation of carbon markets in the US was being torpedoed, a more ‘real’ aspect of the carbon economy literally gushed to the forefront of the media stage in the form of BP’s Deepwater Horizon catastrophe. Obviously, not ‘too big to fail’ like the financial institutions which are even now riding high on infusions of public cash, it became clear that BP was not only ‘too big to have to care’—or better yet too *connected* to care—about the spill, it and the other set of corporate players involved in the leak were ‘too big to have to do’ much of anything. If a well-cap or ‘infusion’ of golf balls and rubble in the form of a ‘top kill’ wouldn’t work then perhaps the ocean would be able to breakdown the oil on its own and the environment would heal itself from our meddling yet again. Nature’s agency indeed. But more specifically, the ‘too big to have to care or do’ arguments were breathlessly implied at the time in the continuing connections made between the fate of BP’s stock portfolio and that of poor pensioners in the UK; something like one in six pounds of all dividend payments made to UK pension funds is paid out by BP (The Independent, 2010).² These arguments were also more forcefully and explicitly articulated by the likes of US politicians and Fox News pundits through their framing narratives that argued that making BP pay for their mess was akin to an inexcusable ‘shakedown’ of the corporation (Thinkprogress.com, 2010a). For others, such as the Governor of Texas, the spill was simply an act of God; as he put it, ‘From time to time there are going to be things that occur that are acts of God that cannot be prevented’ (Sherman, 2010). Divine intervention indeed.

Yet, care BP did, if the public relations blitz it mounted was any indication of its desire to be e/affective in dealing with the broken well. From hiring guards to keep reporters off beaches and out of the skies in investigating claims about the extent and clean up efforts of the spill, to the corporation's internet, newspaper and television campaigns vowing to 'make it right' in the Gulf, to the blundering former CEO, Tony Hayward, who only really cared enough to lament that he did not take drama lessons in preparation for a 'hostile' US public (Thinkprogress.com, 2010b). In commenting during his short *mea culpa* media tour around the UK for the well blow out that killed 11 workers and can now be counted as one of the worst global environmental 'accidents' in history, he had this to say:

Embarrassingly we found ourselves having to improvise on prime-time TV and slap bang in the middle of the glare of the global media. Our efforts involved amazing feats of engineering – tasks completed in days that would normally take months, numerous major innovations with lasting benefits. But because every move was scrutinised around the world, what the public thought they saw was fumbling and incompetence. ... For me perhaps the most shattering reflection was just how much havoc can be wreaked by a single accident in one small part of a giant company's operations – an accident moreover that all our corporate deliberations had told us simply could not happen. ... For BP this was the ultimate low-probability, high-impact event – a black swan to borrow a term used in the financial crisis. (Macalister, 2010)

Black swans—or better yet, blackened human bodies, pelicans, frogs, shrimp, wetlands, oceans, etc—indeed. And what is even more worrying is that much of this was prefigured three years before by an animated film. In *The Simpsons Movie*, after Homer creates his own environmental 'accident' by pouring toxic waste into the local lake, a dome of gigantic proportions is planted over the whole town of Springfield by the Environmental Protection Agency to stop the further pollution of the surrounding countryside. While as much a commentary on the over-reach of the Government in its ability to quarantine an entire town with impudence, the decision and actions of the EPA were nonetheless decisive and swift and, most importantly, performed to the auspices of a contingency plan put in motion by a cartoon president and Federal regulatory agency. Rather than being decisive and swift in terms of its PR, which BP unequivocally was, its CEO and regulators would have been well-served learning from *The Simpsons Movie*: 'accidents' do happen, even if caused by a yellowed, dunce like Homer rather than shoddy safety measures and poor (and captured) regulatory oversight, and 'contingencies' can be something quite useful to plan for.

So, as the wide and whacky post-political world of environmental politics begins to take hold in contemporary societies (Swyngedouw, 2010), strange things are afoot and—in the spaces of a deepening global recession, increasing inequalities and the slippery cultural political economies of climate change—we seemingly only have more uncertainty in store for us. What is overtly less uncertain, however, is that, in the specific realm of climate change and its mitigation and adaptation, *any* direction things may take is fully and unequivocally underpinned, guided by and embedded with normative concerns, precepts and (possible) outcomes. And, this is most certainly true, as the papers in this themed section argue, in the decision to 'confront' climate change through market mechanisms: these decisions and actions are fundamentally characterised by an ethical and moral grounding of what is 'right', 'good' and 'better' in terms of what to do about climate change, its management and mitigation, its scientific networks and judgements and the current and future prospects of its impacts. So, in essence, there is much to be had of the 'norm-isations' entrenched in and constructing the carbon economy in parallel to debates about its normalisation or, indeed, 'un-normalisation' if the Tea Party has its way. For example, with Deepwater Horizon, much debate centred on questioning if BP was doing the 'right' things to deal with the leak, if indeed these were even 'good' or if, perhaps there might be 'better' ways to power human societies through a green economy. In addition, the notion of 'responsibility' was aired in numerous and often very conflicting

ways in conjunction with BP and its role in the leak: BP has a responsibility to its shareholders but also (maybe?) to the environment and local communities (or not), regulators failed in their responsibility to hold the company to even minimal safety standards, and that 'corporate social responsibility' should not/should be ostensibly a PR section of BP and other companies' annual reports. Responsibility—who should be required to do the right/good thing—also played out in the debates over carbon markets in the US. In accordance with the explicit ethico-moral stance of the Palin-ites, Americans have absolutely no responsibility to deal with climate change past, present or in the future.

The three papers in this themed section engage with a number of concerns related to the ethics and moralities of carbon markets. Coming out of a workshop held in Oxford in the summer of 2007 on philosophical and social science approaches to the commoditisation of carbon, they all explore the embedded ethical modalities of carbon markets from different perspectives, sometimes related, sometimes not, and they all make use of different theoretical traditions and styles to argue their points. As editors, we feel that this diversity—as a hallmark of this journal (Dodds, 2010)—is one of the strengths of this collection: from a number of varied and at times seemingly conflicting angles and positions they open up debates about carbon markets designed to confront, as the Stern report had it, one of the most spectacular market failures of all time in the spectre of climate change. Here, the papers explore not only the EU's Emissions Trading Scheme (EU ETS) and the growing market for voluntary carbon offsets (VCOs), but the more general processes of the marketisation of carbon through its commodification, accounting and purchase-ability, the science deployed to define the outlines and rules of these markets and the philosophical foundations on which ownership is assigned, deployed and articulated. Below, before getting to a short discussion of the papers themselves, we pursue a brief exploration of the history of carbon markets, the commodification of carbon and the commodification of care and responsibility in these markets as a way to not only contextualise the papers in this themed section but to also open up further lines of debate in the politics of the carbon economy.

A short tale of carbon markets and international agreements

According to some, climate change is a result of market failure due to an abuse of market power and an inadequate internalization of externalities. Seen in this light, the appropriate response is 'not to abandon markets but to act directly to fix [them], through taxes, other forms of price correction, or regulation (Stern, 2009). Under this rationale, we have seen the emergence of the Kyoto Protocol's flexible mechanisms. These market tools allow developed countries to attempt to comply with their CO₂ emissions targets in a so-argued 'cost-effective' way.³ Moreover, the Clean Development Mechanism (CDM) in particular, incurs the transfer of technology from North to South through projects that range from small-scale tree plantations to large-scale industrial energy efficiency, in exchange for certified emissions reductions.

Carbon trading has not emerged in a policy vacuum however, but is a part of a longer history of the development of market-based environmental policies. The roots of this 'social organization of the natural environment' originate as far back as John Stuart Mill, who in 1862, said that 'if from any revolution in nature the atmosphere became too scanty for the consumption, ... air might acquire a very high marketable value' (cf. Meidinger, 1985).

The rational notion that one can fix markets by internalizing externalities has been debated for almost 100 years. For example, in 1920, Pigou argued for a well-designed pollution tax system to achieve a balance between the private and social costs of pollution (Meidinger, 1985). Yet, debates have evolved regarding market-based environmental policies (Crocker, 1966; Dales, 1968; Montgomery, 1972; Milliman and Prince, 1989; Baumol and Oates, 1988; Hahn, 1989; Hahn and

Stavins, 1992; Stavins, 1998). The most influential thinker on the issue has been Coase (1960) who suggested that 'the right to pollute is a factor of production as is the right to use land' (Gilbertson and Reyes, 2009). From this, Meidinger (1985) noted a fundamental shift in US environmental policy in the 1970s from command-and-control policy to the widespread adoption of markets and 'transferable pollution permits'.

Beginning in the 1970s these ideas were manifest in the US air pollution regulation and the Clean Air Act, and in the control of acid rain and nationwide emissions of sulphur dioxide. A new framework emerged in the 1980s to regulate air pollution through Emissions Trading and Emission Reduction Credits (Meidinger, 1985). Here, the Environmental Protection Agency (EPA) offered states the option of tradable permits for localized air pollutants (Stavins, 1998). This shift was a reflection of new US 'regulatory culture' (Meidinger, 1985) designed to phase out leaded gasoline and ozone-depleting chlorofluorocarbons (CFCs) and, in the 1990s, to cut nationwide SO₂ by 2000 (Stavins, 1998). It was on the perceived success of the SO₂ market in the US that an emissions trading framework was used as the model for the development of tradable certified emissions permits within climate change negotiations.⁴

Since early on in the UN Framework Convention on Climate Change (UNFCCC) negotiations, the US has pushed for 'flexibility' in developed country commitments to emissions reduction targets. This compromise has appeased the interests of private parties and opened the door to new actors, innovations and financing. Yet, in particular, the EU ETS programme, which has been in place since 2005, grew out of an overall lack of progress in the climate negotiations and the EU's desire to take more decisive action to deal with climate change (Gilbertson and Reyes, 2009).

Currently, no new global deal before the end of the Kyoto Protocol 'first commitment' phase in 2012 is likely. Following the hype and subsequent flop at Copenhagen the next UN meeting in Cancun—taking place during the writing of this editorial—promises to deliver on a narrow range of issues such as the 'REDD' programme (Reducing Emissions from Deforestation and Degradation) which is a new mechanism for technology development, and develop finance for adaptation and mitigation through a 'Green Climate Fund' agreement. Yet, seemingly, no agreement will be reached on emissions targets: conflicts remain on how to move forward on the big issues of cuts in greenhouse gas emissions and monitoring, reporting and verification of emissions by developing countries, as well as principles dividing North and South on common but differentiated responsibility. Specifically, the United States and China do not see eye-to-eye on the need for the big developing country polluters to take action on climate change. Moreover, in 2010, action remained sluggish with the failure of the US to pass legislation on climate change through the Senate, and most likely, the US's role in the negotiations will continue to be as non-committal as it has been in the past (Copsey, 2010). More broadly, Copsey (2010) notes that other developed countries have made limited progress on climate action to implement emissions-trading, including the likes of Canada and Australia. This indicates perhaps that a relatively unenforceable 'soft' legal approach will be adopted to negotiating rules on emissions targets, which might ostensibly allow for business-as-usual emissions and approaches to mitigation. Most importantly, the consequences could be severe for the legitimacy of global climate governance and architectures and set-back global investment in greener energy sources and efforts to move away from dependence on fossil fuels (Kjellen, in press), at the same time that a weak climate regime will also result in a poorly functioning global carbon markets and a continued 'too low' price for carbon. At Cancun, there may be progress on adaptation funds, reducing emissions through avoiding deforestation, and moves towards a national level monitoring, verification and review. Nevertheless, even favoured policy mechanisms such as REDD are likely to encounter civil society resistance from NGOs and indigenous groups concerned that compensation for forest protection will simply contribute to existing conflicts over land use, access and displacement. Here, taking climate change mitigation beyond the mitigation of conflicts between and amongst the

various actors involved in global negotiations and into the realms of actually doing something worthwhile and forward-thinking in terms of 'real' mitigation of climate change impacts must take precedence.

The problems and possibilities of commodifying carbon

Besides the simple yet very problematic over-allocation of carbon permits, as happened in the European ETS, the basic technical feats of quantifying, accounting for, and trading carbon in carbon markets is beset by all sorts of problems and complications. Not just incredibly hard to trace let alone quantify, the science of carbon emissions quantification is not only contentious but is embedded in a multiplicity of political economic and cultural contexts. And this occurs all the way from the measurement and accounting of 'smokestack' emissions in somewhere like the UK or Germany down to the grasslands or forest re-growth that is (theoretically) soaking up all of these emissions as part of a 'clean' development project in Africa and/or China. Yet, even more fundamentally, who and what has the marketable and moral right to pump CO₂ into the atmosphere is also contentious: Why are power plants regulated by the carbon economy and not transportation? Indeed, why the overwhelming focus on CO₂ and not other gasses equally contributing to climate forcing or other processes such as landscape change or even meat eating? Even something as simple as measuring one's 'carbon footprint' is not without controversy: should we include past emissions in footprinting formulas (which might really prove to be eye opening or even more ethical?), or, at a simpler level, do we footprint our everyday yet contingent emissions associated with our use of the items we buy (e.g. clothes dryer) rather than simply our consumption of airplane flights or petrol?

Yet, even with all these questions, commodify, privatise, own, 'bank' and buy and sell carbon pollution we are very much in the process of doing. Thus, that old adage of 'that which gets measured gets managed', even in the case with the poor or debatable measurement of something like carbon, still rings true here. And so, what this does in the current neo-liberal climate is open up space for climate change to be managed but, of course, managed through market mechanisms and signals embedded in the price of a tonne of carbon emitted and/or price of carbon sequestered. The obvious question here is that *specifically* of price: is it the 'right' price to do 'good' and 'well', is it a 'responsible' price or might it, or indeed, the process, be made 'better'? Yet, much of the latter question might simply be moot unless we are talking about making 'better' profits given the heavy investments made in carbon markets by powerful industry and financial players from across the globe. Carbon markets are truly in the 'business' of sustainable development; indeed how else to interpret the purchase of ClimateCare, one of the originators of the VCO markets by the likes of JP Morgan, one of the largest investment banks in the world.⁵ And, much like any other market, competition for offsets on the VCO market is rife with companies and other sellers trying to out-do each other and corner the market on 'quality', certified and verified offset projects *vis a vis* other VCO sellers.⁶ This can also take the form of competition through the mechanisms of providing value for money in the price per tonne of carbon. In a review of what was available to consumers a few years ago, this growing competition for sustainable development was described this way:

As more and more people, small businesses and large companies become hip to carbon emission offsets and the carbon-neutral lifestyle, Ecobusinesslinks.com has done some homework for us and completed a comprehensive comparison of the nonprofit and for profit organizations providing carbon offsets. The survey found that most companies provide nearly identical service (offsetting carbon emissions) using a couple different means (tree-planting or investment in renewable energy, or both) but varying wildly in price. Carbonfund.org checked in with the lowest price, at \$5.50 US per metric ton of carbon dioxide, while other companies like TerraPass (about \$10/ton) and NativeEnergy (about \$13/ton) charge more for their offsets that can be calculated for more specific activities, like traveling by car or airplane. The growing

number of companies that offer such service seems to indicate a growing market for carbon credits, which, no matter how much you pay, is a good thing. (Dunn, 2007)

The reasons for these discrepancies in price has of course to do with the 'costs' and 'benefits' of the mitigation programme being funded, but seems to suggest that the projects that can take out the most emissions for the cheapest price are the ones that will get funded and thus become real. The 'rightness' and/or 'wrongness' and/or 'goodness' of this sort of market-based carbon mitigation has yet to be assessed and is greatly in need of further research.

One of the seemingly most vexing issues of carbon markets has to do with who is benefitting financially from ETS programmes. For example, we as energy consumers might be turning our lights off more or using more energy-efficient bulbs than we did in the past given our raised awareness about our impacts on the global climate through our personalised energy consumption patterns. In general then, we use less energy, save money in the process and also work to save the environment. Yet, under a trade-able carbon emissions market, this also means more money for the energy company that provided us with that power: our energy savings can be translated into more trade-able permits for the company who can then sell them on to a less efficient power company. Thus, 'accumulation by de-carbonisation' (Bumpus and Liverman, 2008) happens on the backs of the behavioural changes by energy users and consumer in the name of saving the environment and works to develop more profits for energy companies at the same time through more sell-able permits for them. Something seems quite wrong-headed, much less structurally 'threatening' and rather ethically/moral suspect through this form of climate change mitigation, but it probably goes directly to why carbon markets were able to be set up in the first place and had lots of buy-in from those big players at the (soon to be) top of the permit heap.

The commodification of responsibility and care in carbon markets

With the commodification and marketisation of carbon, it now surely has a 'social life' (Appadurai, 1986) on parallel or even eclipsing its material essence and role in the fundamental basics of all biological forms of life on the planet (Roston, 2008). This is hardly an overstatement if one is to merely look at the amount of resources being marshalled towards understanding climate change, its mitigation and/or adaptation to its effects across the realms of science, social science, policy, business and media. Indeed, this social life of carbon has become so prevalent it might be easy to talk about the 'carbon-ification' of nearly all environmental and social politics being worked out at the moment. Climate change and its mitigation—along with carbon markets and commodified carbon—has certainly taken over as the dominate narrative of environmental movements, caring corporations, concerned business and government leaders; it is certainly, if not *the*, leading driver of the new development agenda working to equal out a vastly unequal world through clean development processes and mechanisms. Indeed, even News Corporation, the Murdoch-owned parent-company of Fox News—the media network that never met a climate change contrarian or 'complicator' they didn't like—will apparently be carbon neutral by 2010 (News Corporation, 2010). That climate change and the carbon economy has successfully 'hijacked' just about every other environmental cause or concern might certainly be justified but there is still the question about how 'right' or 'good' this is and of the geographical differentiations or similarities to this 'rightness' or 'goodness' across spaces, places and scales.

At the forefront of this social life of carbon is its embedding of care and responsibility for Others, for the environment, and for the future into not only the narratives about climate change mitigation and carbon markets, but the very price for carbon emissions and offsets themselves. But this embedding is not just limited to the moment of purchase in choosing 'climate change-friendly' products/offsets through singular acts of 'ethical consumption' (cf. Clarke et al, 2007) or for goods

such as fair trade that promote development (Goodman, 2010). Rather, wrapped up in the social life of (low) carbon networks are these instances of choosing green goods but also the ways we go about using these goods as well as behaving and practicing outside of consumer choice in the context of working towards more climate-friendly daily routines and lives (Barr and Gilg, 2006; Davies et al, 2010; Evans and Abrahamse, 2009; Hinton and Goodman, 2010; Slocum, 2004; Hobson, 2006, 2008). Thus, the social life of carbon, in working to reduce our own impacts, includes the sort of non-commodified changes to our routines and conscious acts at the scale of the 'everyday' as much as it does changes to more green and caring consumption cultures. Furthermore, a more ethical/moral social life of carbon should perhaps also include more caring and responsible energy structures in say more efficient energy grids and homes (Monbiot, 2006) or 'after the car' (Urry, 2011). But, in the current spaces devoid of much of these structural changes, are behavioural and consumption changes enough? Are they perhaps just a little too easy, thus leading to their entrenchment as *the* pathways of what to do about climate change, and leave more collective and regulation-oriented pathways to change off the map? Clearly being able to buy carbon offsets at the same time you purchase your airline flight online—one of the new and growing trends in what is being called 'clicktivism' in recognition of the growth of online activism and its performative ease (White, 2010)—is a 'good' thing but is it the 'right' thing? Either way, working for behavioural and consumption-oriented change has been at top of the agenda from everyone like Defra, to the World Wildlife Federation to volunteer-run, underground activist organisations such as Freecycle⁷ (Hinton, 2011): if we can just get everyone to turn off their lights, purchase climate change friendly goods and/or recycle more, problem solved. Or, if we were all given 'personal carbon allowances' to spend and trade with each other, care doled out and responsibility discharged and (hopefully) climate crisis averted. Indeed, with the bust we ended up with at Copenhagen, to states' and international institutions' weak abilities to develop and enforce meaningful regulation, to the power of MNCs, what other choice is available *besides* consumer choice, consumer politics and individualised ethical behaviours? All of these questions articulate our uncomfortable-ness with not only the complications of the commodification and individualisation of care and responsibility in carbon markets, but their very commodification in the first place. Future work needs to engage not only with these questions and do so at a rapid pace—especially given the potentially potent outcomes of the continuing ascendancy of the Tea Party and its brand of even more extremist neo-liberal anti-environmental, anti-carbon market rhetoric—but research also needs to grapple with more general questions about the practices of carbon markets and their ethico-moral underpinnings that we and the papers in this themed section have raised here.

The Papers

Sam Randall's (2011) paper in this issue works to complicate the ethical and justice-promoting implications of carbon markets. Seen through the lens of the processes of the personal allocation of a carbon allowance, he engages with the ability of these mechanisms to create the 'good climatic citizen' through managerialist and technocratic means that are designed to define what the 'good' climatic life might be. For him, the translation of the 'good life' into a personal allocation of carbon emission is not only simply technologically problematic but fails to engage with the slippery spatially and culturally contingent nature of what it means to not only be a citizen but one concerned with living a life worth leading. Thus, in a way, any approach to managing the global environment will need to grapple with the 'irrationalities' of meanings, ethics and morality as much as they will with the technological and scientific merits and pathways of climate change mitigation.

For Richard Starkey (2011), a philosophical treatment of what the 'commons' is with respect to the atmosphere and what constitutes a 'fair' distribution of resources is where we need to begin to engage with an understanding of the ethico-moral groundings of carbon markets. Utilising an historical approach and the structural tools of philosophy, he assesses the notions of 'justice' as

applied to the commons arguments in the context of a per capita distribution of carbon emissions. Here, in exploring who owns the atmosphere and has a right to pollute it as a 'sink', what Starkey calls the universalising 'commons arguments' fails on philosophical grounds and so, as potentially applied to policy, when assessing personal allocation of carbon emissions rights, geography and political economic context might very well (still) matter.

In the last paper in this themed section, Dave Frame (2011) works through some of the benefits and drawbacks of the use of market-based management tools in carbon markets in the spaces of a 'less-than-perfect' scientific knowledge of climatic systems. For him, decisions based on politics or ethical/moral desires to do 'good' are greatly complicated by not only the operations of markets themselves but by the lack of knowledge about what is 'right' and/or what it means to 'do right' by the incredibly complex systems that make up climate processes and feedbacks. In a sense, what he is calling attention to is the unavoidably political, and indeed, normative, nature of making decisions about what to do about climate change and really, in short, the politics of care and responsibility that permeate any and all governance regimes with respect to hopefully more 'greener' and just futures.

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Endnotes

¹ Of which there is a growing literature highlighting the dangers of not specifying what we are talking about in respect to 'actually existing neo-liberalisms' (e.g. Castree, 2005) as well as one pointing to the need to consider the important projects working to create 'alternatives' within neo-liberalism (e.g. Ferguson, 2009; Goodman, 2010).

² The value of BP's stock over all equates to about 6% of the value of the whole of the FTSE 100 (Which?, 2010)

³ Carbon markets were set out in Article 12 of the Protocol, in what is known as the 'Clean Development Mechanism' and Article 6 known as 'Joint Implementation'.

⁴ Although, misgivings still exist about their overall success of SO₂ markets; for more, see Gilbertson and Reyes (2009).

⁵ Moreover, and perhaps even more worrying, Matt Taibbi sees Goldman Sachs on the ground-floor of what he calls the 'climate bubble' which will work to inflate the prices of traded carbon in exchange for Goldman Sachs reaping massive profits (see Taibbi, 2010)

⁶ Which of course has its own 'moral economy' based specifically on what these standards consist of, what certification is and how it is done and who gets to govern all of this in these markets (see, for example, Callon, 2009 and Paterson and Stripple, 2010); for a take on this from the perspective of food, see Busch (2000).

⁷ Freecycle is an online group that 'matches' up spatially close individuals '...who have things they want to get rid of with people who can use them' with the idea that this 'keep[s] useable items out of landfills' (Freecycle, 2010). For more see <http://www.freecycle.org/>.

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