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Kyoto is dead, long live carbon markets

For two decades now countries across the world have been coming together to discuss the detrimental effects of human activities on the global climate and how to best manage them. Guided by the UN Framework Convention on Climate Change (UNFCCC), the aim has been the 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system' (UNFCCC, 1992). The first major attempt to curb or at least stabilize greenhouse gas (GHG) emissions was made with the Kyoto Protocol in 1997, the first commitment period of which is coming to an end in 2012, i.e. this year!

The UNFCCC signatory countries meet annually at the so-called Conference of the Parties (the COPs), with recent meetings held in Copenhagen (2009), Cancun (2010) and Durban (2011). The run-up to Copenhagen 2009 (COP15) was promising. The conference was talked up as a potential breakthrough in terms of Northern and Southern countries agreeing a successor to the Kyoto Protocol. As we approached COP15, Newell and Paterson (2010) must have put the finishing touches on their book, *Climate capitalism*, which provides quite an optimistic outlook in terms of the ability of capitalism to decarbonize itself and transform the global economy by embracing a 'clean tech' ecological modernization strategy. Around the same time, we (the editors of this issue) started the process of this special edition of *ephemera*. Back then, we were perhaps not as optimistic as Newell and Paterson, but we were certainly more hopeful than we are today. During the editorial process of this issue the political and economic landscape of climate change has changed radically, and we repeatedly felt the need to update the issue with reports on recent events (which has also delayed publication of this issue considerably). In this editorial we shall attempt to provide a brief and accessible overview of these developments, assuming that not all readers of *ephemera* will be familiar with the important and complex debates about, so-called, 'climate capitalism'.

Newell and Paterson's (2010) optimism was based on the prospect of a global decarbonization strategy. This strategy would be financed through a range of carbon market tools, which were established by the Kyoto Protocol. Carbon markets are based on the allocation of a given number of GHG emissions permits or allowances, and

polluters can then trade these permits on a market according to their needs, a system often referred to as 'cap and trade'. The logic behind such a system is to turn GHG emissions into tradable commodities, encouraging efficient market behaviour, and hence the hope was that the immense financing that is needed for investing in green technologies (such as researching and building new renewable energy plants) would come from those big polluters that do not want, or find it comparably expensive, to reduce their GHG emissions. Coupled with this system are various 'flexibility' mechanisms, such as carbon offsetting, which allow polluters to compensate for emissions produced in one location by investing in emissions reductions schemes elsewhere.

Newell and Paterson were not naïve, however. Being leading academics and critical commentators on the political economy of climate change, they were very much aware of the emerging (and almost overwhelming) evidence that pointed to the ineffective and corrupt nature of carbon markets, which was comprehensively collected by, amongst many others, Lohmann (2006) and then updated and extended by Gilbertson and Reyes (2009) as well as Böhm and Dabhi (2009) in the run-up to Copenhagen's COP15. Besides questioning the fundamental logic and efficiency claims made of carbon markets, these critics highlighted their various malfunctions, which came, for example, in the guise of the intense lobbying by big corporate polluters, resulting in the hand-out of free GHG emission allowance in the European Trading Scheme and subsequent windfall profits for these multinational companies. Additionally, evidence emerged that carbon offsetting schemes were often ineffective in terms of actually reducing overall carbon emissions, and corrupt practices were rife, enriching Southern elites and making the lives of Southern communities, particularly those living on subsistence incomes, harder.

That such critiques were not based on armchair thinking, but, instead, embedded in real experiences of how carbon markets actually work on the (Global South) ground, has been confirmed in a dramatic fashion recently. In a rare example of breaking ranks in the carbon industry, an ex-carbon market professional has spoken out against the corrupt and ineffective nature of the Clean Development Mechanism (CDM), one of the cornerstone market tools that the Kyoto Protocol brought to life:

> Almost every project I encountered was being been [sic] gamed or defrauded in some way in order to prove additionality. Unorthodox financial engineering, false certificates, false board meeting minutes…, redacted and re-edited feasibility studies, deliberate omission of material information…. These were all tools of the trade if the original documents or numbers didn't "fit" the rules. At times, when it got really bad we were told to turn a blind eye as our clients created the necessary evidence… Given the above it begs the question: why is there no global investigation taking place? … Where are the serious fraud offices and Interpol in all of this? A part of the answer, surely, is that UNFCCC Parties (i.e. governments) are complicit in the sham of the CDM. (Roddy3, an ex-carbon market professional, in an anonymous contribution to CDM Watch, 2012: 6-7)

Perhaps partly because of such malpractices, the atmosphere business was a fast growing global industry in the run-up to Copenhagen 2009, encompassing banks and other financial institutions, multinational corporations, carbon traders, and small start-up companies. Brushing the critics somewhat aside, Newell and Paterson (2010) believed that, precisely because of the immense financial incentives involved, a kind of

'climate capitalism' would emerge, which would soon crush the 'old' fossil fuel oligarchies, putting global socio-economic relations onto a 'carbon neutral' and hence more sustainable development path. Their hope was unfounded.

Within a short period, between around October 2009 and March 2010, 'climate capitalism' was brought to its infant knees, and since then it has not been allowed to mature and develop further. First, the so-called 'Climategate' controversy emerged in November 2009, just a month or so before the start of COP15. The email system of the Climatic Research Unit (CRU) at the University of East Anglia (UEA) was hacked into by yet unnamed individuals, and soon after emails were made public that apparently showed that leading climatic scientists at CRU fudged or misrepresented climate data. 'Climategate' was welcome news to those companies of the old fossil fuelled economy, i.e. the ExxonMobils of the world, which have been eager to fund climate change sceptic scientists and think tanks since at least 1998 (see www.exxonsecrets.org). While the claims against UEA scientists have since been discredited and shown to be unfounded by a variety of investigations, climate change denier groups continue to use the incident to spread their message, which has had considerable success in fuelling uncertainty amongst the public, helping to take climate change off the top of the political agenda.

At about the same time, the full effect of the global financial and economic crisis became apparent. Most Northern/ Western economies contracted sharply, millions of workers lost their jobs, and many companies made huge losses. While the run-up to Copenhagen's COP15 was fuelled by a politico-economic believe that 'climate capitalism' was possible, the global financial and economic crisis brought the atmosphere business down to the realities of demand and supply, which are still predominantly governed by a fossil-fuel-led and hence carbon intensive hegemony.

Another factor that played a significantly role, which was connected to the demise of the economic might of the North/ West, was the emergence of the BRICS block of so-called 'middle-income' countries that started to flesh their political and economic muscles more at international events such as COPs. The Chinas, Brazils and Indias of the world started to talk back at the North/ West, rather than simply accepting the policies by Western controlled institutions, such as the IMF, Worldbank or the WTO. The BRICS, supported by other 'developing' countries, argued at Copenhagen, and all subsequent COPs since then, that they must be allowed to develop, resisting Western calls to include them in any successor treaty to Kyoto, i.e. curbing their emissions in the same way as Kyoto has tried to do with the so-called Annex I, or developed, countries.

The result of these three factors has been that COP15 as well as all COPs in Cancun and Durban since then have been tremendous failures in terms of their inability to agree a new post-Kyoto emissions reduction regime. In fact, as various notes in this special issue argue, a new Kyoto-style global agreement now looks less likely than ever, if the process of trying to achieve a global climate deal is not dead altogether. While the run-up to Copenhagen was fuelled by utopian hopes of the emergence of 'climate capitalism', we now need to come to terms with a situation where we seem to have the worst of both worlds. On the one hand, the old fossil fuel hegemony has been on the up, as oil giants are now suddenly not 'beyond petroleum' anymore, but, instead try to

squeeze the last drops of oil and gas from the earth crust into our fuel tanks by going into new depth (deep sea drilling), the wild (Alberta tar sands), experimenting with new technologies (fracking and shale gas). The green talk of BP and colleagues that made headline news between 2004 and 2009 has made way to a discourse of energy security, which is promised through the development of questionable, and, as critics argue, dangerous and unjust, technologies, such as carbon capture and storage (CCS) and large scale biofuel production.

On the other hand, Durban's COP17 has made clear that the new kids on the block, the emerging 'climate capitalism' players, have not given up, as they continue to push for the expansion of carbon market tools. Controversial offsetting tools, such as REDD (Reducing Emissions from Deforestation and forest Degradation), are now pushed forward, although they have been resisted by indigenous people, NGOs and other civil society actors, particularly those situated in the Global South, for years. While a global treaty does not seem to be within our reach, carbon market advocates have changed tack to now call for bilateral agreements between Northern and Southern countries, and a massive expansion of the voluntary carbon offset market.

This special issue of *ephemera* takes on the political and economic logic of the atmosphere business, putting it under renewed critical scrutiny. Given the fast moving nature of the climate change discourse and its associated economic and political practices, academics, NGOs and activists need to continuously update their analysis and their knowledge of this emerging process. This special issue is designed to do exactly that, building on the work done by a host of critics, such as Lohmann (2006), Gilbertson and Reyes (2009) as well as Böhm and Dabhi (2009). The contributions collected in this special issue question the underlying ideologies and assumptions, and bring to light many of the contradictions and antagonisms that are currently at the heart of 'climate capitalism'. They offer a critical assessment of the political economy of carbon trading, and a detailed understanding of how these newly created markets are designed, how they work and do not work, the various actors that are involved, and how these actors function together to create and contest the atmosphere business.

The language of the atmosphere business: A short glossary

As Larry Lohmann stresses in his interview with us in this issue, carbon markets seem to be designed *not* to be understood by non-experts. They are by design confusing, non-transparent and complex, despite the claims to the contrary by politicians and the climate industry. One only has to have a look at the catalogue of new terms and acronyms that have been invented for carbon markets. This inventiveness and newness has created an impression of activity in terms of making progress with climate change mitigation, while many critics in this issue and elsewhere have shown that the opposite is often true.

The statistics are quite clear. The only drops in carbon emissions that have occurred over the past two decades were during recessions or some other type of serious economic collapse. For example, the ex-Eastern bloc countries battled with various GDP contractions throughout the 1990s, and then, of course, there was the 2008 global

financial crisis and resulting recession. Both events resulted in considerable GHG emission reductions, while carbon markets have had near to no impact whatsoever, other than creating new business and profit opportunities. This non-progress in terms of making a step-change towards dealing with climate change is covered up by the complexity of the language that surrounds the atmosphere business, which has resulted in a 'black box' of carbon market terminology that only experts can open up and take advantage of.

Thankfully, there have been NGOs, academics and activists who have helped us to make the closed, opaque and self-serving world of the atmosphere business accessible to non-experts, opening it up for engagement, critique and resistance. Here Carbon Trade Watch (e.g. Gilbertson and Reyes, 2009) and Corner House's Larry Lohmann (e.g. 2006) deserve a particular mention for their services to understanding and critically engaging with the emerging political economy of carbon markets. The NGO FERN has also made a decisive contribution, and the following glossary has been almost entirely reproduced from the very good introductory guide on carbon markets by Kill et al. (2010). As many readers of *ephemera* are not necessarily fluent in carbon market 'new speak', we hope that this glossary goes some way towards explaining and introducing key terms used throughout this special issue:

Additionality: The quantity of GHG emissions that have been reduced or removed thanks to an offset project. In quantitative terms it is the difference between the emissions occurring in the baseline scenario (if nothing has happened), and the emissions that occur as a result of an offset project.

Annex I countries: Countries committing themselves specifically to the aim of returning individually or jointly to their 1990 levels of GHG emissions by the year 2012.

Anthropogenic: Resulting from or produced by human beings.

Baseline: GHG emissions from activities that would have occurred in the absence of offsetting policies or projects. Not to be confused with business-as-usual.

Business-as-usual (BAU): GHG emissions which would occur without any climate change specific regulations.

Cap and trade: A policy where a regulatory or international body sets a limit (i.e. the cap) on the amount of pollution (e.g. GHGs) that can be emitted in a certain period by certain entities (depending on the body these entities might represent industrial sectors or a group of nations). The cap is divided into permits for the right to a small part of the capped pollution. The permits have transferable title (ownership) which allows for exchange of permits. Not to be confused with offsetting.

Carbon: An element found in many GHGs, though not all. Carbon dioxide (CO2), the most significant component in the GHG mix, accounts for about 80 per cent of the total; methane (also a carbon-based GHG) is another important component.

Carbon Capture and Storage (CCS): This refers to a fairly new, und yet untested, technology that attempts to capture CO2 (for example, in the fossil fuel use in power generation), pumping it into underground geologic formations, primarily those that have previously stored large quantities of gas and oil. While various demonstration projects exist, CCS has yet to be commercially used at a large scale, given the immense cost and still emerging technological base involved. Many critics argue that CCS a) is too expensive, b) deepens our fossil fuel dependence, rather than preparing us

for a peak oil scenario, c) is technologically unproven, d) is geologically risky, and e) potentially increases ocean acidification (not included in the glossary by Kill et al., 2010).

Carbon credits: Offset credits represent the right to emit one tonne of carbon dioxide. Credits can be exchanged between the offset project owner and a company or individual requiring such a credit to offset their emission or can be bought and sold on the international market at the current market price.

Carbon dioxide (CO2): A naturally occurring gas, also a by-product of burning fossil fuels such as oil, gas and coal, of burning biomass, and of land use changes and other industrial processes. It is the principal anthropogenic GHG and thus the reference gas against which other GHGs are measured.

Carbon dioxide equivalence (CO2e): There are several gases other than carbon dioxide that have a global warming effect. In order to be able to compare the dangers of each of the gases, their global warming potentials (GWPs) are measured against a metric tonne of carbon dioxide over a fixed period so as to know what mass of the gas would have the same global warming effect. This is known as its carbon dioxide equivalence. The Kyoto Protocol measures carbon dioxide equivalence using a time horizon of 100 years.

Carbon finance: Investments in GHG emission reduction projects and the creation of financial instruments that are tradable on the carbon market.

Carbon offsets: An instrument that aims to allow carbon to continue being released in one place in return for reducing carbon in another place. They are measured and given credits for each metric tonne of carbon dioxide-equivalent (CO2e) they reduce. One carbon credit represents the reduction of one metric tonne of carbon dioxide, or its equivalent in other greenhouse gases. They are issued by various bodies, with some only accepted in voluntary markets. Only those issued by the Kyoto Protocol are accepted in the EU-ETS.

Carbon trading: The sale and purchase of GHG (or carbon) accounting tokens (permits and credits) including transactions and securities based on these accounting tokens.

Certified emissions reductions (CERs): A unit of GHG emission reductions issued pursuant to the Clean Development Mechanism of the Kyoto Protocol, and measured in metric tonnes of carbon dioxide equivalent. One CER represents a reduction of GHG emissions of one tCO2e.

Clean Development Mechanism (CDM): An arrangement under the Kyoto Protocol that allows industrialised countries with a GHG reduction commitment to invest in projects that reduce emissions in developing countries as an alternative to more expensive emission reductions in their own countries.

Climate change/ global warming: A change in global climate which results directly or indirectly from human activity that changes the composition of the global atmosphere and which is in addition to natural climate variability. Global warming is a more popular term that recognises that global temperatures overall have been increasing since the Industrial Revolution.

COP: Stands for 'conference of the parties'. 'Parties' here refer to the signatory countries of the UNFCCC, and they have met annually from 1995 at the so-called COPs to assess progress in dealing with climate change (not included in the glossary by Kill et al., 2010).

Credit: Issued to project owners who prove they have reduced emissions from their baseline level in an industry or country that sits outside of a cap and trade system.

Emissions trading: The sale and purchase of airborne pollution accounting tokens (permits and credits) including transactions and securities based on these accounting tokens.

EU Emissions Trading Scheme (EU-ETS): The ETS is the largest multinational emissions trading scheme in the world, and it forms a major pillar of EU climate policy. Under the ETS, some large emitters of CO2 within the EU must monitor and annually report their CO2 emissions.

Greenhouse gases (GHGs): Those gaseous constituents of the atmosphere, both natural and anthropogenic, that trap or in some case repel heat energy such as the sun's rays. This property causes the greenhouse effect. Water vapour (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4) and ozone (O3) are the primary GHGs in the Earth's atmosphere. Moreover, there are a number of entirely human-made GHGs in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances dealt with under the Montreal Protocol. Besides CO2, N2O, and CH4, the Kyoto Protocol deals with the GHGs, sulphur hexafluoride (SF6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

Intergovernmental Panel on Climate Change (IPCC): The leading body for the assessment of climate change, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide the world with a scientific view on the current state of climate change and its potential environmental and socio-economic consequences. It is staffed by leading academics and representatives of the national members of the United Nations. Although it has been criticised for not being independent, having too many vested interests, for being too conservative or too reliant on incomplete data, it is widely seen by governments as the scientific body that provides them with the analysis of the latest science on climate change and indicates what level of impact can be expected at different GHG concentrations. The IPCC does not produce original research, but synthesises peer-reviewed research in the form of Assessment Reports. It has published four reports (1990, 1995, 2001 and 2007), and the next report is due in 2014.

Kyoto Protocol: An international agreement linked to the UNFCCC. The Protocol sets binding targets for industrialised countries which are signatories to the protocol as listed in Annex 1, for reducing GHG emissions amounting to an average of a five per cent reduction against 1990 levels over the five-year period 2008-12. The UNFCCC 'encourages' industrialised countries to stabilise GHG emissions, the Kyoto Protocol 'commits' them to do so.

REDD and REDD+: Stands for 'reduced emissions from deforestation and forest degradation'. It is a mechanism for paying governments, companies or forest owners in the Global South for keeping and looking after their forests (instead of cutting them down, for example), as forests are seen as important 'carbon sinks', literally capturing and storing CO2 over long periods of time. There are various versions of REDD (including a REDD+ version); for an introduction and brief overview, see www.redd-monitor.org/redd-an-introduction (not included in the glossary by Kill et al., 2010).

United Nations Framework Convention on Climate Change (UNFCCC): An international treaty to consider how to respond to climate change. Now includes the Kyoto Protocol. Most countries are signatories.

Voluntary Emissions Reduction (VER): A form of offset produced primarily for sale in voluntary offset markets (which are little regulated), while CERs are generated through the UN controlled and regulated CDM. (Kill et al., 2010: 107-112; with minor additions and amendments)

Contributions to this issue

This special issue starts with six notes that contextualize and set the scene for the 'atmosphere business'. As regular readers of *ephemera* may notice, this order (of publishing 'notes' before 'articles') is somewhat unusual. The notes paint the political and economic landscape in which climate change negotiations today take place and point to the myriad of conflicting interests and contradictions involved in its various

facets. Many of the notes are hot off the press in that they take their starting point in the recent United Nations Climate Change conference, COP17, which took place from 28 November to 9 December 2011 in Durban, South Africa. Indeed, during the editing process of this issue we have occasionally been confronted with the limitations of academic publishing when it comes to urgent and timely topics, such as the atmosphere business; hence the decision to open the issue with reflections on and critiques of the latest developments by prominent theorists, activists and commentators.

In the first note, Mike Childs of Friends of the Earth sets the scene from the point of view of a non-governmental organization, which has been (critically) engaged with the politics of climate change negotiations for many years. Childs provides an accessible overview of some of the key points of contention in the negotiations and points to the difficulties and dangers involved in thinking of the atmosphere in terms of property to be owned and divided amongst a number of shareholders in a global market.

Oscar Reyes, in the second note, discusses the state of carbon markets in light of the COP17 negotiations in Durban. He throws us directly into the deep end, as the note tackles the contradictions and shortcomings of various market-based mechanisms intended to solve the challenge of climate change, in particular the Clean Development Mechanism (CDM). As Reyes concludes, despite the evident shortcomings of these mechanisms and the recent collapse of carbon markets, the outcome of the negotiations at Durban still involved an ongoing expansion of trading mechanisms, on the reasons of which he offers some reflections.

In the third note, Gökçe Günel offers an ethnographic account of the climate negotiations in Durban with focus in particular on the controversies involved in the negotiations around carbon capture and storage (CCS). The note provides a rare backstage view into how climate negotiations actually unfold and the various ideas and arguments involved in the deliberations.

In the fourth note, Patrick Bond gives a detailed assessment of the climate negotiations in Durban, naming its winners and losers. Bond puts the negotiations both in a local, South African context and a global politico-economic one. He offers a detailed analysis of the role of critics and climate justice activists at the conference, reflecting in particular on their failure to mobilise people for their cause. Based on his assessment of how the conference proceeded, Bond concludes with a call for a necessary regrouping of critical forces.

Moving on to tackle the 'atmosphere business' from yet another point of view, in the fifth note Tadzio Mueller provides some reflections on the alternative global meeting on climate change that was held in Cochabamba, Bolivia, in 2010 in direct response to the perceived inadequacies of the COP negotiations taking place under the UN framework. Taking his inspiration from Shakespeare, this note sets up the meeting in the context of a play with three acts, in which Mueller reflects on the politics involved. Mueller pays attention in particular to the difficulties in articulating a global, anti-capitalist climate politics and the controversies involved in the 'new extractivism' embraced by the Latin American New Left.

A welcome interlude to the special issue is provided by Larry Lohmann and Steffen Böhm as they engage in a conversation about what it might mean to 'critique' carbon markets. In their discussion on the contradictions of the 'climate commodity' and the politics of critique, they touch upon a variety of issues from the problems of inequality, incoherence and procrastination to the benefits and limits for political struggles of various theoretical traditions such as actor-network theory, world-systems theory and Marxism.

The first three articles of the issue engage directly with the logic of carbon trading and its underlying structures. The three articles that then follow engage in more detail with the specific problems and challenges of various carbon offsetting schemes. In the first article of this issue, Robert Fletcher develops Naomi Klein's notion of 'disaster capitalism', which refers to the growing trend to see climate change as a business opportunity. Whereas Klein uses this phrase in particular for attempts to capitalize on natural disasters such as hurricanes and tsunamis, Fletcher shows how this notion also speaks to the way the climate crisis is treated at large. In particular, Fletcher shows how the climate crisis has (i) been used for the marketization of formerly public domains and (ii) how climate disasters are used for short-term and long-term financial gains.

Jerome Whitington, in his contribution to this issue, elaborates on the speculative nature of climate capitalism, arguing that the atmosphere business is currently characterized by multiple levels of uncertainty. This uncertainty, Whitington argues, applies for example to what we call 'carbon': instead of being a tangible product that can be measured, valued and traded, Whitington argues that carbon 'is an assemblage of agreements, conventional practices, durable artefacts and rules held among people who operate in very different contexts around the world' (Whitington, in this issue). It is this uncertainty about the very nature of the 'thing' that is traded in carbon which feeds speculation and climate opportunism, hindering the establishment of international agreements.

Ingmar Lippert's contribution to the issue shows the contingent nature of taken-for-granted facts about corporate carbon emissions. By entering the 'hidden abode' of their production, Lippert shows the practical difficulties involved in the accounting practices used as a basis for the representation of a company's total carbon emissions. The detailed analysis points to the highly political nature of the classificatory practices underlying the creation of carbon emissions as physical facts. Thus, Lippert calls for more attention to be paid to the 'ontological politics' of the creation of carbon facts.

Joanna Cabello and Tamra Gilbertson of Carbon Trade Watch provide a detailed review of two recent special issues on the REDD+ mechanism, a carbon offset scheme designed to contribute to climate change mitigation through a focus on the governance of global forests through market means. They point to the many contentious elements involved in REDD+ projects, raising questions about their actual contribution to the reduction of GHG emissions. Cabello and Gilbertson criticise in particular the epistemological assumptions underlying many of the discussions of the REDD+ architecture, which reduce all value to monetary value and assume that further incorporation of indigenous communities into the capitalist markets automatically constitutes progress, thus silencing alternative voices in the process.

Rebecca Pearse's contribution focuses on the governance issues involved in the establishment of REDD projects in the Asia-Pacific. Focusing on the mapping of ongoing projects in the region, and taking a closer look at four projects in particular, Pearse argues that what is often presented as a triple 'win' situation for ecological, economic and social interests is actually riddled with contradictions. Far from being a coherent framework, then, Pearse presents the REDD architecture as continuously contested by a range of actors and calls for more research into the networks of different actors that contribute to the success and failure of the mechanism.

In their contribution to the issue, Esteve Corbera and Charlotte Friedli critically assess eight forestry projects registered under the United Nation's Clean Development Mechanism (CDM), which is a carbon offsetting scheme established by the Kyoto Protocol. Corbera and Friedli pay attention in particular to the local social, cultural and environmental effects of the projects over and above purely economic aspects. They also emphasise the underlying uncertainties with regards to accounting and monitoring practices that are also discussed in some of the other contributions to this issue, and argue for the need for more stringent regulation if the mechanism is to continue to operate. Corbera and Friedli call for more empirical research into the consequences of the carbon offsetting projects currently in operation, and suggest that the establishment of an 'Ecological Debt Fund' would constitute a more effective and just mechanism through which Northern countries can repay their ecological debt to the Global South.

The three book reviews that conclude this issue all deal with the complexity of the question if and how capitalism is able to respond to climate change. Siddhartha Dabhi offers a critical review of Anthony Giddens' *The politics of climate change*. Giddens, in line with his ideas of (and affiliation with) 'third way' politics, suggests that free market capitalism must be controlled by a politics that finds a balance between free market neo-liberalism, on the one hand, and reformist socialism on the other. Dabhi welcomes the book's accessible introduction to some of the most crucial topics in the politics of climate change, but laments its lack of depth: the 'solution' of a third way may only appear as a solution by systematically leaving some of the political tensions unaddressed. Dabhi turns Giddens' thesis that climate change is still waiting for a politics on its head: discussions around climate change are political through and through, whereas the suggested solution of a 'third way' politics denies the complex and often opposing forces that currently make up the political landscape of climate change.

Peter Newell then reviews Patrick Bond, Rehana Dada and Graham Erion's (eds.) *Climate change, carbon trading and civil society*. The book, in Newell's reading, provides an important contribution to debates around carbon markets. He has two main critical comments: its polemic nature (against carbon markets and CDM in particular) occasionally overshadows needed reflections on the dynamics behind the belief in CDM-like solutions and their specific consequences. In his review, Newell's also touches upon what we as editors have experienced: the atmosphere business is moving fast – perhaps too fast for traditional academic outlets such as edited volumes and journal issues.

What Giddens' analysis lacks (see Dabhi's review) is, according to David Levy, one of the main strengths of Peter Newell and Matthew Paterson's *Climate capitalism*: they

provide a nuanced overview of the complexities that underlie the question if and to what extent capitalism is able to provide an answer to climate change. Newell and Paterson, in Levy's words, 'demonstrate a grudging embrace' of carbon markets while recognising its many flaws. While this embrace by some of the leading critical commentators and academics on the political economy of environmental change and development has been a bit of a surprise to some (see, e.g. Lohmann and Böhm, this issue), Levy seems to support their analysis, adding, however, one important caveat. Capitalism may well survive climate change, but in a way that could bring its ugly, authoritarian face to the fore, rather than its (imagined) promise of a harmonious order between man, nature and economic growth. We have been warned!

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