

MAKING A MARKET? CONTESTATION AND CLIMATE CHANGE

Rebecca Pearse

In the last two decades political contestation over climate change generally, and climate policy specifically, has been waged over the merits, design and implementation of market-based regulatory mechanisms. This includes emissions trading, carbon taxation and various voluntary measures. Emissions trading has been at the centre of national and international debates with the provision for emissions trading and other supporting 'Flexible Mechanisms' in the 1997 Kyoto Protocol. In turn, the European Union Emissions Trading Scheme (EU ETS) was installed in 2005 alongside a range of smaller schemes by state and corporate enterprises mostly in OECD nations.¹ Multi-lateral and bi-lateral agreements between states and public-private partnerships are also a distinct feature of the push toward carbon markets.² Thus, in no small

1 In 2008, the global carbon market was estimated to be worth \$US126 billion more than double the total market value in 2007, with a much smaller rise to \$US143 billion in 2009 (Capoor & Ambrosi 2009; Kossoy & Ambrosi 2010). Various compliance and voluntary emissions trading schemes have been developed by state, corporate actors and with the input or support of civil society organisations. They vary in size, design characteristics, sectoral and geographic scope (Ellis & Tirpak 2006). There are nine emissions trading schemes hosted in OECD nations: North America (the Regional Greenhouse Gas Initiative, Chicago CCX, Alberta Offset scheme), Europe (the EU ETS, the linked Norway ETS and Switzerland ETS) and the Asia-Pacific (the Japanese Voluntary ETS, NSW Greenhouse Gas Abatement Scheme and the recently installed New Zealand ETS). The Kyoto Protocol is a framework for inter-state emissions trading. 'Flexible Mechanisms' in the Protocol include emissions trading for Annex I nations with emissions reduction requirements, alongside two baseline-and-credit schemes that produce carbon offsets in non-Annex I countries: the Clean Development Mechanism (CDM) and Joint Implementation (JI).

2 For example, the Indonesia-Australia and Papua New Guinea-Australia Forest Carbon Partnerships agreed to in 2008 are explicitly intended to anticipate the

way does climate governance constitute the process of installing new markets for capital accumulation. In fact, amidst the fragmenting nature of the governance processes, it seems only one common thread remains: the commitment to market-based initiatives.

However, the market-oriented machinations of climate governance are not a uniform phenomenon spreading in a linear fashion from global to local contexts. The waxing and waning potential for a global integrated market in tradeable greenhouse gas emission rights is a case in point. Major compliance schemes in the United States, Canada, Japan and Australia are on the back-burner. Carbon markets are being established in a haphazard fashion, dampening the hopes for globally integrated market. At best the future of the market will entail cooperative fragmentation and at worst, markets will be siloed in disjointed schemes (Flaschland et al. 2010). There are a number of factors hindering the pace and reach of carbon markets across most regions. Focusing on contestation, this paper draws out the interplay between three collective social formations seeking sway over climate governance.

I make the case that there is permeability and variability in the neoliberal climate project that brings both hope and a distinct analytic challenge to political scientists and movement actors alike. Given that debate, negotiation and outcomes in regard to market-based policy are fragmented, at times contradictory, and highly contested, how do we explain the sustained but duplicitous faith in the market to deliver ecological outcomes? Where is there space in the political fields of climate governance to realise non-market alternatives? This paper's analytic focus straddles political economic questions concerning new market creation and sociological interpretations of political contestation. Neo-Gramscian insights (Carroll 2007, 2009; Gill 1995a, 2008) into the nature of politics and hegemony are enlisted. I outline three political orientations taken to be in a war of position over climate governance: climate markets, climate action and climate justice. After outlining an

marketisation of the pending United Nations framework on forest conservation and land-use change. The PNG and Australian governments have pledged to 'exchange experience and expertise that will support Papua New Guinea's and Australia's participation in international carbon markets' (DCCEE 2008: 2). Partnerships building the forest carbon market agenda such as this have fuelled a spate of carbon trading entrepreneurs developing forest offset projects for the voluntary market in PNG.

analytic framework in the next section, the following three sections delineate the philosophy of praxis underpinning these three orientations in the struggle over climate governance.

This work draws on existing case studies of corporate/state networks and social movement activity, as well as my observations as a researcher and participant in the Australian climate movement.³ The typology of political orientations I identify, are conceived as underpinning three core discourses in climate debates (see Table 1). Each of these orientations faces a dilemma. The hegemony of market ‘solutions’ for climate change mitigation is far from complete. The transnational coalition of actors championing carbon markets faces the challenge of legitimacy in the political field. The alliances of non-government organisations and community groups calling for climate action face the dilemma of compromise. Wedged between the market and the state, the strategies and normative agenda of this significant portion of global civil society appear to be tilted to the right (Carroll 2007; Lipschutz 2005), confirming the commitment to inadequate emissions reduction targets and market-based policy. Finally the more uncompromising political praxis of the emergent global climate justice movement faces the challenge of realising a popular movement with power and vision enough to forge a new mode of political, economic and cultural organisation. In the process of this examination I wage a critique of the current and potential trajectories of the climate movement. I conclude that the case for a realising a popular climate justice movement is strong. The familiar but augmented task for this emergent orientation lies in forging an encompassing and realisable transformation of political, economic and social structures. Rather than boast an answer to the quandaries of Australia’s nascent climate justice movement, I point to arenas where this political praxis must win the long ‘war of position’.

3 Over 2008 and 2009, I conducted interviews with 25 climate change activists for research with the Climate Action Research Project, a participatory action research project which includes James Goodman and Stuart Rosewarne, conducted through the Cosmopolitan Societies Research Centre in partnership with Friends of the Earth Australia. Whilst data from these interviews does not make it to this overview, the insights and dilemmas these people shared from their experience of grassroots activism, unionism and advocacy organisations are distilled into my discussion. The arguments made however are my own, and should not to be attributed to the participants, a consensus in the movement or within Friends of the Earth.

Contestation and the Politics of Climate Regulation

Between the premise (economic structure) and the consequence (political organisation), relations are by no means simple and direct; and it is not only by economic facts that the history of people can be documented. It is a complex and confusing task to unravel its causes and in order to do so, a deep and widely diffused study of all spiritual and practical activities is needed. (Gramsci 1958, cited in Bobbio 1979: 33).

Taking a lead from economic sociology, I start from the assumption that traditional economic analyses of market formation are incomplete (Fligstein & Dauter 2007; Granovetter 1985; Lie 1997). The market is ill-defined in neoclassical approaches ‘shorn of social relations, institutions or technology and devoid of elementary sociological concerns such as power, norms and networks’ (Lie 1997: 342). Favouring universal assumptions of rationality, the neoclassical economic approach does not tell us about the complexities of social and political relations underpinning carbon markets, from formation to operation. The following discussion investigates the social and political relations that make markets possible, or in many cases probable. A neo-Gramscian account of power and contestation is used here to bring focus to the discussion.

This paper draws initially on the work of David Levy, Peter Newell and Matthew Paterson who have produced an admirable set of empirical investigations into climate governance addressing the hegemony of market-based regulation, taking a neo-Gramscian approach (Levy 1997; Levy & Egan 2003; Levy & Newell 2005; Newell 2000, 2005, 2008a, 2008b; Newell & Paterson 1998, 2009, 2010). The majority of this scholarship, however, is focused singularly on business actors, enlisting a rather benign and instrumental view of corporate strategy, and these days, only occasionally a reflection on counter hegemonic forces. For instance, Paterson (2009) has recently put forward the thesis that ‘resistance makes markets’, commenting rather vaguely on the ways in which contestation over forest offsets in particular has contributed to corporate strategies of legitimisation (e.g. voluntary offset standard initiatives from 2007 onwards). What is not explicated is, in Gramsci’s terms, the exact philosophies of praxis and elements of civil society contended to corroborate, rather than undo the climate change market hegemony (1971: 235). If this claim is to be substantiated, the social

relations that make markets possible, including a more disaggregated view of civil society, must be made apparent.

My observation in regards to Newell, Paterson and Levy's work is not a blanket dismissal. Indeed, they have accounted for a range of non-government organisations and social movement forms over the years. Rather, this paper is an attempt to propel a point of departure for Gramscian analysis of contestation and climate change more critically and productively engaged with the questions of organising for social and political change (a neglected endeavour in both the climate governance literature, and neo-Gramscian international relations scholarship more generally; see Saurin 2008).

I propose an explicit engagement between Gramscian scholarship and the social movements that are seeking transformatory political change from below. Gramsci's formulation of the 'organic intellectual' underlines knowledge production as dialectically bound up in historical processes. For both Marx and Gramsci, the construction of a social ontology is essential for uncovering latent revolutionary possibilities (Rupert 1993). In Gramsci's words, this work is necessarily part of a struggle to replace 'common sense' ideologies maintaining the social order with 'good sense'. His philosophy of praxis was the pursuit of theoretical and practical unity; there is no theory without practice in the historical materialist tradition (Gramsci 1971: 364, 440-446). I am thus offering a modest contribution to a potential new hegemony, beginning from key preoccupations of the climate justice movement, that is, the disorderly march toward carbon market creation, and the imperative to realise alternative forms of social organisation. The ideas here are intended to inform the strategic and phenomenological quandaries facing climate movements. By uncovering the modalities of hegemony and counter hegemony underpinning the climate debate I have sought to contribute to already ongoing reflection in the movement.

Antonio Gramsci (1891-1937) was a Marxist philosopher, journalist, political organiser for the Communist Party of Italy and a prisoner during the Mussolini fascist regime. His vocabulary for hegemony (inverted from Lenin's original use of the term), and unique formulation of civil society has inspired a range of global political economy scholars seeking an antidote to the orthodoxy of realism. He offered a dynamic conception of politics, explaining the dual nature of hegemony in a way that accounts for the resilience of capitalist social arrangements. For Gramsci,

‘the supremacy of a social group manifests itself in two ways, as “domination” and as “intellectual and moral leadership”’ (Gramsci 1971: 57). The basis for hegemony then – an historic bloc – not only enjoys power through coercion (the realists’ instrumental power), but via epistemic and cultural dimensions of social life (Gill 2008). In turn, systems of rule or social order spring forth from the active and passive consensus of civil society forged over time. Civil society is both a site of consensual legitimation *and* contestation. The questions that arise from this relate to the operations of hegemony and counter hegemony on all scales of the global political economy, and thus call for a dynamic understanding of collective agency and grounded analyses of the material sites, actors and ideas involved in contestation.

Gramscian conceptions of power and agency allow us to make sense of ways certain actions and epistemologies come to permeate social and political life in complex, often unpredictable and contested ways (Gill 1995a: 402). Realisation of agency for Gramsci lies in the struggle between different collectivities in the political process. Hegemony is not easily exercised, nor is it static. Consensus must run the gauntlet of ongoing struggle between competing ideological, theoretical and political projects (Gill 2008).

[The] process of historical unification takes place through the disappearance of the internal contradictions which tear apart human society, while these contradictions themselves are the condition for the formation of groups and for the birth of ideologies which are not concretely universal but are immediately rendered transient by the practical origin of their substance (Gramsci 1971: 445).

Gramsci’s formulation figures collective action as the basis of social structures as well as their contestation and transformation (the long ‘war of position’), conceiving history and social change as a continual, cumulative, but non-repetitive process (Gill 2008: 17). Moreover, the military metaphor serves to construe the operation of power not just in terms of constituent parts to the political field (actors, institutions and ideas), but the entire arrangement of relations between them. Pursuing an analysis of the arrangement of social forces brings hope, but as will be demonstrated, not wishful thinking. Struggle is a dialectical process.

Amidst the struggle over climate governance I wage a critique of the *status quo* and apply a dose of wilful optimism.⁴

It is assumed here that the dialectical argumentation we bear witness to in climate debates is grounded in material conditions, reflecting historical-material processes, not singularly a contest of ideas. In other words, ‘hegemony has ontological depth’ (Carroll 2006: 11). I inquire into the material bases for forms of agency in the political field, investigating the agential capacity of social formations to reconfigure social relations beyond those which bind collective responses to climate change to the logics of emissions-intensive capital accumulation. Three prevailing forms of political praxis are construed to be in a long ‘war of position’ having co-constituted the impasse in climate governance we are now witness to. The orientations are based on three dominant forms of discourse waged in the climate debate: climate markets, climate action and climate justice (see Table 1). They are analysed according to four constitutive elements: epistemology, actors, philosophy of praxis and agency. These elements are delineated as a means to lay bare the material foundations of hegemony and counter hegemony. I propose each mode of contestation faces possibilities and dilemmas in realising its political project. The dilemmas present as much as a hindrance as they are a blessing, best understood as productive tensions wherein strategic and sometimes new forms of transformatory philosophies of praxis are born (Goodman 2009; Maddison & Scalmer 2006).

Climate Markets

The pervasive pursuit of market-based solutions to climate change rests on the logics of neoliberalism; the primary assumption being that privatisation, commodification and marketisation of ecological systems are optimal means of conservation (Castree 2008: 147). As a policy preference, the advocates of market solutions suppose climate change (indeed, all ecological problems) ‘can be solved by the creation and enforcement of tradeable property rights in environmental ‘goods’ and ‘bads’ (Eckersley 1993: 4). We see this play out in the common

4 I am of course making reference here to Gramsci’s much quoted slogan from the masthead of his journal *L’ordine Nuovo* ‘pessimism of the intellect, optimism of the will’.

assumption that putting a price on carbon is essential and fundamental to mitigation (e.g. key OECD government sponsored economic analyses make this assertion, Garnaut 2008; Stern 2007). Using the price system to incentivise lower emissions production and consumption is purported to be able to deliver the most cost efficient ecological outcome. Analyses, such as Stern’s and Garnaut’s, are waged at the expense of considering alternative measures. In rhetorical terms, it is understood as a preference for market mechanisms, rather than direct state intervention.

Table 1: Political Orientations in the Struggle Over Climate Change

	Climate markets	Climate action	Climate justice
Epistemology	Climate change as market externality	Climate change as institutional and technological failure	Climate change reflects internal relation between exploitation of nature and people
Policy	Market-based regulation and voluntary agreements	Often agnostic on role of the market International UN treaty	Rejection of market mechanisms in favour of post-capitalist economic, political and cultural re-organisation
Actors	Transnational networks of corporate, state, international institution and civil society actors	National and transnational networks of NGOs and community groups	Transnational networks of social movement organisations, autonomous collectives and some Latin American states
Philosophy of praxis	Accumulation by decarbonisation	Climate cosmopolitanism	Global climate justice from below Eco-sufficiency
Agency	New constitutionalism	Civil society between state and market; politics via markets	Militant particularism and global ambition

On the broadest level, we can understand the hegemonic preference for climate markets in the context of shifting norms and agency bound up in the reorganisation of the global economy from the 1970s (Newell & Paterson 2009). The restructuring of global production in this period is connected to the onset of a third technical-industrial revolution and the emerging transnational power of capital (Gill 1995b). After the float of the US dollar 1971, and in the wake of oil shocks in 1973 and 1979, and high levels of debt in industrialised nations, a visible swing to the right took place in the struggle to establish causes for the West’s woes (Newell & Paterson 2009). The ensuing political project is now commonly known as neoliberalism, observed to have been led by UK Prime Minister Margaret Thatcher, US President Ronald Reagan, an influential group

economists at the University of Chicago, key state agencies (treasury departments and central banks) and the International Monetary Fund (MF), World Bank and World Trade Organisation (WTO) (for a concise overview see Harvey 2005). This ideological contest waged against Soviet-style socialism and Keynesianism fuelled the shift away from the post-war compromise of 'embedded liberalism' (Ruggie 1982). The reform agenda was based on a commitment to deregulation and privatisation of formerly public infrastructure and institutions, supported by the simultaneous discursive shift toward the language of market efficiency and state retreat. This served to consolidate the power of capital, reformulate the nation-state,⁵ the nature of regulation, and stimulated the disaggregation of the Left (Saad-Filho & Ayers 2008).

Neoliberal hegemony is evident in the architectures of climate governance (Newell & Paterson 1998, 2009, 2010). Market-based policies for emissions mitigation are infused into the Kyoto Protocol, Copenhagen Accord and all national legislation already installed and currently debated. Most certainly, these forms of regulation have realised their status as the commonsense compromise palatable to the deeply reluctant resource sector. Amenable resource sector firms came around to the carbon market agenda in Europe and then the US as the pressure for an international response to climate change intensified (Meckling

5 Although rhetoric of minimal state intervention is a hallmark of this political orientation, the state has not retreated. Whilst it is tempting to discern the global predilection for market-based responses to climate change as a triumph of the market over the state, we must not forget the central role nation-states play in market creation (Engels 2006). Market creation entails rule-making and intervention by states albeit alongside other actors in networks that transcend both national boundaries and international negotiations (*ibid.*: 332). This is particularly true of emissions trading. Cap-and-trade systems require a state, international or corporate body to legislate a cap on emissions. Thus, a second, contradictory logic of those advocating market solutions to climate change pertains to the state. Ecosystems inevitably come under state directives because of their centrality to economic and social reproduction (Castree 2008: 148). The sustained role of the state in market creation demonstrates the mismatch between the normative content of neoliberalism and its practice. Gramsci anticipated this contradiction noting that '*laissez-faire* too is a form of state "regulation" introduced and maintained by legislative and coercive means' (Gramsci 1971: 160). Understanding the reconfigured (but not diminished) role of the state is crucial to our understanding of neoliberalism (Cahill 2009).

2008).⁶ Corporate voluntarism from this sector shaped the emissions trading agenda and market architectures to a significant degree. The first emissions trading schemes experimented with in Europe were corporate in origin. British Petroleum (BP) and Shell installed in-house emissions trading schemes in 1998 and 2000 respectively. These initiatives helped to foreclose the European debate over carbon taxation and legitimise emissions trading.

Of course it should be remembered that these initiatives were second order to the preceding pro-active campaign waged by the infamous Global Climate Coalition (GCC), of which both BP and Shell were both members. The GCC fanned climate scepticism and motivated the US departure from the Kyoto Protocol (Gelbspan 2005). In Australia, the Australian Industry Greenhouse Network (AIGN) was an equivalent epicentre for the resource sector campaign against any form of climate regulation (Pearse 2007, 2009). After concerted criticism of these tactics from all corners of the left, resource sector firms continue more subtle campaigns against the prospect of meaningful state intervention into their industries via peak lobbying organisations, such as the World Business Council for Sustainable Development (WBCSD), and in Australia, the Minerals Council of Australia. As with the examples of BP and Shell, emissions-intensive corporations are increasing involvement with pilot carbon offset programs (see below). The resource sector seems to be waging a multifarious campaign supporting market-based mechanisms for climate change where politically necessary.

Foundations of the market orientation were carried with normative weight by economists, state agencies and to a lesser extent, environmental NGOs particularly in the US. A watershed in environmental regulation occurred in 1988, when the UK Environment Department commissioned a report on climate change impacts and policy options with the aim of providing a response to the Brundtland report. The 'Pearce Report' titled *Blueprint for a Green Economy* was highly influential in its advocacy for market mechanisms (Pearce 2005; Pearce,

6 North America was a site of original visions for pollution markets. It is here that the first experiments in pollution trading were installed. The 1990 US federal Clean Air Act amendment included provisions for emissions trading, resulting in the first compliance scheme for sulphur dioxide trading. As is frequently cited, the supposed success of these schemes inspired US delegates to propose emissions trading to the 1996 UNFCCC negotiations.

Markandya & Barbier 1989). It championed a move away from so-called ‘command-and-control measures’ toward market-based policy for environmental problems. Economist David Pearce himself notes ‘the presence of [market-based] measures is a remarkable testament to the influence of environmental economists on policy, and to the receptiveness of civil servants and politicians’ to new ideas’ (Pearce 2006: 150). Think tanks in industrialised countries (particularly the US and UK) have likewise played a central role in promoting the market agenda (Beder 1996, 2001).

Meanwhile, state agencies in the US and UK have been instrumental in the application of these ideas (Braun 2008). In practice, the Environmental Protection Agency (EPA) in the United States was a key bureau within which market-based policy for environmental pollution was trialled, legitimated and institutionalised. Stephen Gill’s notion of ‘new constitutionalism’ captures much of what is related here. New constitutionalism refers to the ‘varied and complex efforts, especially by the forces of the political right and those of neoclassical economists and financial capital, to develop a politico-legal framework for the reconstitution of capital on a world scale, and thus for the intensification of market forms of discipline’ (Gill 1992, 1995b: 78). Gill has captured the implicit, but macro-political processes by which this historic bloc seek to shape international institutions and secure the logical parameters of global governance as deference to the god of market efficiency (Gill 2008). Carbon market advocacy and installation presents as an extension of this mode of hegemony.

The support of the large environmental non-government organisations (ENGOS), notably the US Environmental Defense Fund and the Nature Conservancy, also played a role in substantiating the legitimacy of emissions trading both in the US and later Europe (Braun 2008; Meckling 2008). The Environmental Defense Fund partnered with BP in the installation of its in-house emissions trading scheme in 1997, contributing to the corporation’s post-GCC green image (Victor & House 2006). More recently, the US Climate Action Partnership (USCAP) – a coalition of twenty-four companies and four ENGOS⁷ – was formed in

7 The full list of members are as follows: AES, Alcoa, Alstom, Boston Scientific Corporation, Chrysler, The Dow Chemical Company, Duke Energy, DuPont, Environmental Defense Fund, Exelon Corporation, Ford Motor Company, General Electric, General Motors Company, Honeywell, Johnson & Johnson, Natural

2007. USCAP, of which the Environmental Defense Fund, Nature Conservancy, Pew Centre on Global Climate Change and World Resources Institute are members, lobbies for market based regulation for climate change. These large organisations continue to build and profit from carbon market initiatives. For example, in 2008, the Nature Conservancy partnered with American Electricity Power (AEP), Pacificorp, BP and the Bolivian government in a pilot REDD⁸ project, the contentious Noel Kempff Climate Action Project.⁹ The World Wildlife Fund for Nature (WWF) is another key player. It is a partner in the Gold Standard carbon offsets accreditation program and profits from offset projects such as the Amazon Region Protected Areas pilot forest REDD scheme in Brazil.

The Australian ENGO's response to the pursuit of a global carbon market has been similar. Since the early 1990s peak environment groups have been supportive of market-based mechanisms (proposing either a carbon tax or emissions trading) for climate change mitigation. Some of the most visible and popular organisations (the Australian arm of the WWF, the Australian Conservation Council (ACF) and Greenpeace) have pursued corporate partnerships (Doyle 2000). This approach has significantly constrained the work of these organisations within a

Resources Defense Council, NextEra Energy, NRG Energy, PepsiCo, Pew Center on Global Climate Change, PG&E Corporation, PNM Resources, Rio Tinto, Shell, Siemens Corporation, The Nature Conservancy, Weyerhaeuser and the World Resources Institute (USCAP undated).

- 8 The policy terminology for this track of the negotiations is Reducing Emissions from Deforestation and Forest Degradation in developing countries (REDD). REDD schemes create projects to conserve forest land that would otherwise be subject to forestry or other land use changes leading to forest degradation. It is understood as creating 'carbon sinks'. Creating a UN framework for REDD with market-based funding is the one thing 'stakeholders' in climate governance are reaching consensus over. That is, REDD projects are likely to create carbon offset credits saleable to firms in Northern nations who have, or will, install emissions trading schemes to meet emissions reduction requirements under the UNFCCC. In reality, the REDD offset market is being built on three fronts: in the UN, proxy inter-state dealing making and the voluntary initiatives undertaken by state, corporate and civil society actors such as the Noel Kempff Climate Action Project.
- 9 The credits generated by expanding a Bolivian National Park are to be sold in the voluntary market via the Chicago Climate Exchange (CCX), and has been heralded as a model for future REDD projects (The Nature Conservancy undated). Recent analysis from Greenpeace International puts both the ecological and social claims of this project into question (Densham et al. 2009).

neoliberal agenda, albeit in different ways and to differing degrees (Rosewarne 2003).¹⁰ The decision of WWF, the ACF and Climate Institute to support the Carbon Pollution Reduction Scheme (CPRS) in April 2009 highlighted the collusion of key ENGOs with the market agenda.

A cohort of carbon entrepreneurs have nested into the architectures of climate governance, realising their political project by rolling out often pre-emptive institutional arrangements. In particular, the emergent material power of the global financial sector from the 1990s has played out in the progression of climate governance. This sector is the emerging centre of this historic bloc (Newell & Paterson 2010). A key form of corporate strategy waged by the financial sector actors involves initiatives of (often pre-emptive) voluntary governance¹¹ and engagement in public-private partnerships (PPPs). The World Bank's Prototype Carbon Fund is the archetypal PPP. It has served the dual purpose of carbon market advocacy as well as being an implementation network for the UN Clean Development Mechanism (CDM)¹² (Bäckstrand 2008; Streck 2004). This transnational network of six states and seventeen corporations developed some of the first CDM projects and has paved the way for a spate of such partnerships in the slow, unruly drift toward carbon markets. Meanwhile global networks of financial sector actors are vocal in the political process, pursuing the market agenda through sustained lobbying efforts. The International

10 For example, there is a contrast between the WWF's increase in state funding between 1990 and 2003 (Hamilton & Macintosh 2004), compared to the decline the ACF experienced.

11 Voluntary initiatives constitute a significant portion of market operations including, for example: organized marketplaces (e.g. European Climate Exchange, Chicago Climate Exchange and the Montréal Exchange), and firms offering verification services, derivatives and insurance for traded permits (Bumpus & Liverman 2008; Stern 2007). There is no room here to adequately cover the range of governance architectures used in the carbon market. See Bumpus and Liverman (2008) for an examination of the UN-administered and voluntary offset markets. Stripple & Lövbrand (2010) also offer an excellent review of the CDM market.

12 The CDM was originally conceived of as a fund for sustainable development, but has been marketised in the process of negotiations. Projects are created by either state or corporate actors to produce Certified Emissions Reductions (CERs) that count toward an Annex I nation's mitigation targets. The CDM operates between developing (non Annex I) nations and developed countries (Annex I). In 2008, the primary market was valued at US\$6.5 billion, but contracted severely (by 59%) to US\$2.7 billion in 2009 (Capoor & Ambrosi 2009; Kossoy & Ambrosi 2010).

Emissions Trading Association (IETA), for instance, is an association of 174 firms with an interest in the carbon market. It is highly influential in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations and was crucial in the retention of international commitment to emissions trading after the US withdrawal in 2001 (Newell & Paterson 2009).

However, the carbon market is not an easily realised project. The future of proposed market mechanisms for climate mitigation is uncertain in key OECD nations including the United States, Japan, Canada and Australia. Debates in these nations have been waged fiercely, with contestation reflecting deep seated tensions over economic growth, international cooperation, responsibility and distributive justice. The dismal status of international negotiations over a binding Post-Kyoto agreement means a key mechanism for guaranteeing market demand and supply is in serious doubt. Kyoto although nonbinding, remains an essential normative tool with which emissions trading markets harness power and legitimacy. The legitimacy of carbon markets has been questioned within the UNFCCC and outside it. Actions of the Bolivarian Alliance for the Americas (ALBA)¹³ alongside Tuvalu and the Alliance of Small Island States (AOSIS) in Copenhagen present as signs of disaggregating, but potentially strengthening, power in the South and a move away from the dominant agenda of Organisation of the Petroleum Exporting Countries (OPEC) in the G77. Likewise, the emergent climate justice movement has contested carbon markets at key sites across the globe (see the penultimate section of this paper).

Finally, the Australian debate over climate policy is a prime example of the shifting ground of climate politics. Organised dissent against the CPRS (from the right, and the left to a lesser extent) has triumphed at least temporarily. Abbott's ascension to Liberal leadership and inflammation of the debate with anti-tax rhetoric figured as the most powerful interjection. Aided no doubt by the failing international commitment to a post-Kyoto agreement and Rudd's inability to following through on the social democratic flourish underpinning the former government's commitment to emissions trading or the more progressive, though not climate change oriented, Resource Super Profits Tax. Meanwhile, the Australian Green Party's position that the CPRS

13 Venezuela, Cuba, Bolivia, Nicaragua and Ecuador.

was 'worse than doing nothing' played a significant role in contesting the corporate capture and ecological vagaries of cap-and-trade. The resultant *status quo* has resulted in a debate wholly confused about what it is we are debating. Prime Minister Gillard wants to form a consensus, though on what, remains unclear. Marius Kloppers, CEO of BHP has warmed to a carbon tax (Lee 2010). Abbott continues the anti-tax rhetoric. The Greens are currently calling for a 'carbon price' (read carbon tax or cap-and-trade?) with the majority of the climate change movement agreeing, save one socialist organisation and a network of climate justice activists with which I am affiliated.

Despite the continued commitment to the climate market agenda, we might optimistically maintain that in 2010 a little space opened up to rethink the parameters of climate politics. At the very least the activities of state, corporate and civil society building the climate market agenda when taken together are incoherent in some respects, and therefore contestable. Those would-be champions of climate markets have not secured a hegemonic economic, political, moral and intellectual unity in the process of contestation (Gramsci 1971: 181-182).

In light of these fluid formations, I now turn to the second question of this work: is there any space to realise non-market alternatives for climate change mitigation? Put another way, what forms do counter-hegemonic forces take, and what is their potential? There are two contrasting political orientations visible in the climate movement, identifiable by two distinct types of discourse: climate action and climate justice.¹⁴ These two bents are investigated keeping in mind the challenge

14 The ensuing discussion is particularly informed by my observations of the Australian climate movement. The distinction made between political orientations of 'climate action' and 'climate justice' is not easily substantiated, not least of all because of the diversity of movement praxis within and between groups. However, it presents as a common nominal distinction made by climate activists particularly in Australia, Northern America and Europe. In Australia climate action is the preferred discourse for ENGOs and the network of 'Climate Action Groups'. A similar partition became evident within social movements at the Copenhagen UNFCCC between the ENGO-led tck tck tck campaign and the Reclaim Power protest. And in 2010 an exchange between the 1 Sky initiative led by Bill McKibben among others and a host of climate justice collectives who figured their political project in contrast to the former organisation's tendency toward professionalised, policy-oriented reform campaigns (see both open letters, Bailey et al. 2010; Wood 2010). In light of this, grouping movement activities and networks along these lines is much neater than division according to organisational

at hand, the imperative to finding openings for change that do not lead to co-optive capture whilst simultaneously building constituencies on the ground (Carroll 2007: 39). Networks organising for climate action and for climate justice each face dilemmas in the process of contestation. Both grapple with the task of organising for social and political change, albeit with differing predispositions. There is an open question waged throughout the remainder of this work asking how might these orientations meet and potentially realise common strategic visions?

Climate Action

Climate action presents in the political field as an orientation seeking instrumental institutional goals, that is, either creation or reform of institutional mechanisms in the order of national and international cooperation over decarbonisation. Those who use this phrase in the process of contestation are invariably calling for a binding international treaty with strong aggregate international and national emissions reduction targets. In addition, climate action advocates frequently focus on the urgency of climate change drawing parallels to state mobilisation of resources during the World Wars.

Climate governance has not only taken shape alongside the emergent power of transnational capital, but also the organisation of professional transnational interest groups from the 1990s (Goodman 2007; Josselin & Wallace 2001). The discourse of climate action originated within the advocacy work of non-governmental organisations on national and international levels. Thus the political and tactical agendas often associated with this orientation can be in part understood in reference to the increasing professionalization of social action on climate change. Among the hundreds of international NGOs seeking sway over global governance, environmental organisations have emerged and consolidated over the past 25 years, particularly in the urban centres of the global North. They include the World Resources Institute, WWF, Sierra Club, Nature Conservancy, Greenpeace and an umbrella alliance created in 1989, the International Climate Action Network (ICAN). In the previous section, I discussed the explicit legitimating role some of these

form or ideology only. The summary provided here is intended as a grounded analytic frame to inform further sociological investigation.

organisations have played in market-oriented climate governance. At other moments and sites in the contestation over climate change, peak groups lead the way in reformist agendas less obviously supportive of the market agenda.

The national and transnational networks of ENGOs and community groups orienting around this discourse are agnostic, or perhaps more rightly understood as ambivalent about the role of market mechanisms for climate mitigation, most of the time favouring the win-win logic of ecological modernisation (Hajer 1995). Ecological modernisation is a concept used to capture a normative trend in environmental politics which rests on the assumption that the 'external costs' of capitalism and the industrial system can be internalised into existing institutional and economic structures (Mol, Sonnenfeld & Spaargaren 2009). Actors who carry the ecological modernisation project seek to invert the logic of opposition between the prevailing economic order and ecological values, recapitulating ecological issues as an opportunity for continued profit.

ENGOs have played a role in creating public expectation and backing for state responses to climate change in Northern industrialised countries for the most part. To a lesser extent ENGOs have set the terms of the debate beyond acceptance of the need to act (Newell 2000). In a tangled web of cause and effect, the better resourced and institutionalised ENGOs have tended to operate within, and substantiate the techno-managerial suppositions of climate governance. In doing so, ENGOs fail to contest the neoliberal construction of nature, that is, seeing nature itself as a marketplace, where optimal resource use and market value are purported to find common cause (Doyle 2000, 2010; Goldman 1998b, 2001). Thus the discourse of climate action campaigning for 'strong targets', 'climate solutions' and 'clean technologies' belies a political strategy that seeks seemingly neutral ground in the process of contestation, away from more radical confrontations and ideological overtones.

The plethora of NGO published reports meticulously detailing potential energy scenarios are important means of making the normative case for decarbonisation (e.g. Saddler, Diesendorf & Denniss 2004; Teske & Vincent 2008; Wright & Hearps 2010). The epistemology behind this orientation owes much to the disciplines of science, economics and engineering. However, establishing the existence of technical capabilities often begs bigger political questions concerning the nature and extent of reform sought after. The recent Beyond Zero Emissions report for

instance claims it is neither anti-growth nor anti-business (Manning 2010), and again we see the logic of ecological modernisation emerge. Their reasoning is explicitly geared toward the technical problem as they see it, assuming the political agenda will flow from there. The bold vision for decarbonisation raises the question how might government agencies be moved to mobilise resources (an estimated \$37 billion a year for 10 years)? And how might the intimate state/capital connections be at least reformed? Meanwhile, the silence in reference to the market agenda is deafening.

At the grassroots of the climate movement in Australia¹⁵ there is also a kind of complicity with the carbon market agenda, though admittedly the seeming political middle ground has certainly contributed to the popular appeal of this movement in industrialised countries in the mid-2000s. The central focus of the national network of community groups (titled Climate Action Groups or CAGS) across Australia in 2009 was participation in a transnational initiative led by US environmentalist Bill McKibben. *350.org* inspired community groups to build an international symbolic campaign in the lead up to the UNFCCC COP15. The campaign policy sought an international binding emissions target in the Post-Kyoto treaty.¹⁶ It is an impressive exercise in the global political imaginary, bringing the challenge posed to us by climate science into a significant array of locations, into people's lives via collective mobilisations. The need to stabilise emissions is harnessed to mobilise on a universal basis – perhaps also understood as a latent expression of global climate justice. However, the potential for the 350ppm signifier to mobilise either states or a transnational movement beyond moments of symbolic protest is fraught. Evocative of cosmopolitan politics, this form of political praxis is challenged in locating its global citizenry in the local jurisdictions struggle over how climate change must be waged.

15 In the last four years a climate movement has emerged that is distinct from the Australian environment movement. It includes many individuals (predominantly from white middle class backgrounds) who have been politically mobilised for the first time. The formation of what is now approximately 80 active local Climate Action Groups was initially supported by state Conservation Councils.

16 On an international day of climate action, they produced 5,200 events capturing images of people signifying the number 350 in more than 180 countries and held silent vigils in Copenhagen and across the world in December. In Australia, Climate Action Groups, GetUp and the Nature Conservation Councils enthusiastically took up the project.

On the whole, those calling for climate action rarely raise the questions of economic growth, the veracity of market-regulation, or the inequalities bound up with climate change. On the question of the carbon market there is striking ambivalence. In 2009, the climate action movement was all but silent on the emissions trading debate. Interestingly, there has been some internal debate over emissions trading in the movement. The national Climate Action Summit at the beginning of that year saw the movement network commit to ensuring the CPRS would not become law at its national meeting, but refrained from taking an in-principle stand against emissions trading.¹⁷ In 2010 the network voted to reject emissions trading outright. In addition, however, the network agreed on a national campaign goal to install a price on carbon. Limited discussion has occurred over the likelihood that the Greens' former and likely future proposal to set an interim price on carbon based on the CPRS structure is compatible with the Labor government's continued, albeit faltering, commitment to an emissions trading scheme.

In sum, the logic and politics of climate action are limited by an over-insistence on instrumentality and an uncritical view to existing institutional arrangements. I have suggested that this is due to the resistance on behalf of ENGOs and community groups to position themselves politically. Five Greenpeace activists scaled the Sydney Opera House during the Copenhagen UNFCCC meeting to drop a banner reading 'Stop the politics, climate treaty now' (Kwek 2009). The question to be asked is not how might the politics of the UN climate regime be stopped, but what kind of politics will forge the new trajectory needed? In the spirit of putting two forms of praxis in conversation with one another, I make the case for the climate justice orientation though I am not uncritical or unrealistic about this part of the movement's potential. Thus I proceed with caution. Gramsci acknowledged the ambiguity to resistance and refuted determinist explanations of false consciousness (Mittelman & Chin 2005). We can understand the climate (action) movement's ambivalent relationship to the question of carbon markets, as part of the process of contestation itself. The former critique is not intended to propose the politics of climate action and its advocates are misled, suffering Marx's false consciousness. Gramsci had something to say on this:

17 In 2009 and 2010 the network came together for a national Summit, where participants develop shared goals and campaigns.

If one applies one's will to the creation of a new equilibrium among the forces which really exist and are operative – basing oneself on the particular force which one believes to be progressive and strengthening it to help it to victory – one still moves in the terrain of effective reality, but does so in order to dominate and transcend it (or to contribute to this). What 'ought to be' is therefore concrete; indeed it is the only realistic and historicist interpretation of reality, it alone is history in the making and philosophy in the making, it alone is politics. (Gramsci 1971: 172)

I acknowledge the undesirability of ideological purism, but am aware of the need to find another trajectory. As a contribution to a new equilibrium then, I explore the possibilities and dilemmas of climate justice.

Climate Justice

A new paradigm for radical critique of market-oriented climate governance has emerged, born of the movements for global and environmental justice, and harbouring a fresh set of potentials and dilemmas (Goodman 2009). Climate justice refers to a philosophy of praxis that envisions economic, political and cultural re-organisation. In many cases, but not all, the political change sought after presents as calls for post-capitalist (indeed post-patriarchy and post-colonial) transformation. The climate justice movement is a transnational network of social movement organisations, autonomous collectives and more recently involving alliance with two Latin American states (Bolivia and Venezuela). Those who organise for climate justice have taken up two interwoven agendas, one reactive, one proactive. Firstly, they seek to refute, resist and ultimately undermine the technological redecoration of fossil fuels and market-oriented 'false solutions' to climate change that aggravate rather than resolve the iniquitous causes and effects of climate change. Secondly, a positive agenda is sought so that not only is the hegemony of market solutions stripped away, but a new political, economic and cultural organisation of society is made possible.

Alongside the transnational proliferation of corporate power in the 1990s, and the emergence of (institutionalised) global civil society, global resistance movements more firmly planted on the ground have

arisen. Two overlapping philosophies of praxis have emerged: environmental justice¹⁸ and global justice. They have shared ethics resting upon reclamation of the commons in the face of corporate globalisation (Goldman 1998a; Klein 2004). In contrast to the one-dimensional notion of the commons in liberal political theory and economics, the commons for global justice activists is material and symbolic, multi-scaled and dynamic (Goldman 1998a). This informed the multi-pronged strategy of this movement of movements. Accordingly, anti-dam activists in the Narmada Valley of India, peasant farmers in Thailand fighting water and land hungry golf courses, urban Europeans Reclaiming the Streets with carnival-style protest and mining protestors the world over have each been challenging the same forces behind relentless commodification and eco-social enclosure on multiple axes (Johnston 2006).

These networks waned in the post-September 11 world, and perhaps under the weight of their own radical pluralism. But they have since been reinvigorated in climate justice campaigns, focused upon the carbon-intensive sources of climate change and the markets that protect them. Echoing the praxis of justice globalism, climate justice assumes that current political and social structures can be transformed through collective prefigurative politics (Carroll 2007). By extension, the climate crisis also brings a new generative potential. The confrontation between capital accumulation and ecological survival creates a universal imperative to live differently (Goodman 2009).

Civil disobedience at the emissions-intensive sites in the North marks a politics of refusal. 'Direct action' taken to halt the operations of coal mines, coal ports, airports, and the European Climate Exchange at Climate Camps disrupts the everyday permanence of polluting industry, albeit for no more than a day. The first Climate Camp was held in 2006 at Drax coal-fired power station in Yorkshire, a second at London

18 Environmental justice emerged in the US from community mobilisation against toxic pollution disproportionately dispersed in poor indigenous and African American communities. Environmental justice activists connected environmental degradation to the social and political grievances evoked by the civil rights movement (Pezzullo & Sandler 2007). Into the 1990s, environmental justice movements in the North and South forged transnational networks. They insisted ecological issues should be taken up in conjunction with struggle against the local injustice that trails the operations of transnational resource companies and pose a challenge to the capitalist growth economy (Pellow & Brulle 2005).

Heathrow airport in 2007, and a third at Kingsnorth power station 2008, and camps have since been held in over a dozen other sites across the world in 2009 and 2010. Climate Camps in Australia have targeted coal expansion for national consumption and export at Newcastle coal port, long wall coal mining for steel production in the southern coal fields of Sydney and retention of the Hazelwood coal-fired power station in Victoria. These gatherings of usually 1000-2000 people fall far short of posing a structural challenge to polluting industries. Nonetheless, they are a generative site for not only instrumental action, but movement building and strategising.¹⁹ Indeed, in Australia Climate Camps are moments where the orientations climate action and climate justice come together. These sites of contestation are vital component to the struggle for climate justice, but not the only battle to win.

The slow drift toward markets in tradeable carbon rights must be resisted head on. A network of activist-scholars, leveraging expertise and producing meticulous exposés uncovering the realities of carbon markets on the ground, supports a grassroots struggle in the South and North (Bond 2007). The Clean Development Mechanism (CDM) was the seminal carbon market institution challenged by social movement collectives and critical scholars alike. With the installation of compliance emissions trading schemes and the 2005 ratification of Kyoto Protocol, the CDM was touted as a method of providing financial support for development in tandem with sustainable development. In response, social movement organisations, such as the Transnational Institute and Carbon Trade Watch, Sinks Watch, REDD-Monitor, FERN, Corporate Europe Observatory and Friends of the Earth, have revealed the promise of these projects to be false.²⁰ Inch by inch they seek to undo the hegemony of

19 This is a central premise underpinning the Climate Action Research Project. All of those interviewed in the project were recruited on the basis of their having a connection to these events.

20 The criticisms waged at CDM projects have highlighted the inherent injustice involved in offsetting continued emissions intensive activity in the North, and illustrate that these offsets effectively rewards carbon intensive planning and practice. They have questioned both the environmental efficacy of projects and the honesty of corporate self-monitoring, as well as roused as a deeper suspicion that business' ardour for quick, short term profit can be reconciled with emissions reductions in the long term (e.g. Brunnengräber 2009; Gilbertson & Reyes 2009; Lohmann 2001, 2006; Smith 2007). Most worrying is the reported eviction of rural and indigenous peoples via acts of enclosing land for corporate ownership, lost livelihoods and the corruption of recorded mitigation data (e.g. Bachram 2004;

neoliberalism at the sites of its carbon market. These investigations highlight the situated, iniquitous effects of carbon markets. The epistemic basis of these critiques begins from a rejection of the commodification of nature in the first instance. Thus their efforts wage an epistemological challenge to the neoclassical formulations of climate change as a resolvable externality.

In its search for a material basis, climate justice figures itself as simultaneously local and global praxis generating North/South solidarities along the way. In these forms of resistance we see Harvey's dialectic at play between the militant particularism of lived struggle and times of critical distance serving to formulate global ambitions (1996: 44). The World People's Conference on Climate Change and the Rights of Mother Earth held in April 2010 exemplifies this. The potentials and dilemmas involved with forging a cohesive, proactive, transformatory climate politics were in stark display here.

On the 19-22 April, over 30,000 people gathered on a sports field in Bolivia's Cochabamba, an alternative climate summit was held replete with an alternative set of agendas. Seventeen working groups undertook the collaborative task of fleshing out a vision and programme for climate justice. The event culminated in a 'People's Agreement' on climate change. After laying out an anti-capitalist position on climate change, five key proposals (among others) were communicated (PWCCC 2010a):

- The obligation of developed countries to honour their climate debt toward developing countries and Mother Earth.
- A World Referendum on climate change and related issues.
- Establishment of a UN Universal Declaration of the Rights of Mother Earth.
- Establishment of an International Climate and Environmental Justice Tribunal.
- The creation of a mechanism to REDD+ for the management and conservation of forests that is not based on the carbon market regime, that respects the sovereignty of states,

Dada 2007; Isla 2009; Reddy 2007). These trends seem certain to be repeated with the imminent marketisation of the UNFCCC REDD scheme (Al Jazeera 2009; Densham *et al.* 2009; Goodman & Roberts 2009; Hall 2008; Okereke & Dooley 2010).

guarantees the rights and participation of indigenous peoples and forest dependent communities.

There is significant potential in this vision seen through the normative claims for an anti-capitalist climate justice, historical responsibility and a critique the UN-REDD scheme as the next site of carbon market extension. However, the strategic content behind this vision will disappoint those looking for tangible and perhaps more instrumental objectives from the Summit (Schultz 2010).

If we take the example of Climate Debt, a question goes begging. Which institution might deliver the transfer of wealth this notion implies? Moreover, does this formulation reduce historical responsibility to a financial transaction? The report of this working group alludes to larger questions in regards to the scale on which justice can be realised (PWCCC 2010b). Where do responsibilities lie? And to what extent could inter-state transfer of technologies and finance (however unlikely) deliver justice to the global South? Similar questions hold for the prospects of holding the proposed global referendum on climate change in 2011. The proposal for REDD+ can likewise be read as a commitment to the flawed UNFCCC process, a tactical orientation that goes highly contested in climate justice networks.

In addition, the movement's alignment with the Bolivian state brings up interesting questions. The Pachakuti Indigenous Movement (PAM), an indigenous political party hosting Working Group 18 was excluded from the Cochabamba conference by the Bolivian government. Mesa (table) 18 was focused on environmental issues such as Bolivia's continued resource extraction, notably oil and gas. The government refused their admission on the basis that these were local issues, not appropriate for the international summit. However, the tensions apparent do not warrant a dismissal of the Bolivian state's role in building power for climate justice.

The complications and potentials of social movement engagements with the Bolivian state are far from clear cut (Solnit 2010). Productive tensions like this are food for thought for those seeking evidence for viable post-capitalist climate hegemony. The Cochabamba conference has sparked movement reflection on the current prospects for actually existing eco-socialism, and more generally questions of engaging with states and thereby what state policy and reform should be aimed for are being broached (e.g. Building Bridges Collective 2010; Goodman &

Rosewarne 2010). A familiar explanation for what is prompting these quandaries has been offered: contradictions exist between the discourse of climate justice and the material basis (Müller 2010). This juncture runs along two veins: the limits of state socialism and, more generally, the movement's failure to institutionalise itself as force to replace neoliberal hegemony (*ibid.*). To my mind, the future task at hand will be realising sufficient political agency to re-vision state and inter-state institutions, whilst remaining in sustained struggle for climate justice from below. I do not have answers to this familiar bugbear, except to canvass the challenge as it relates to current trajectories in the climate justice movement. Nonetheless a movement for climate justice (or some iteration of this) seems the most fruitful site of agency in the contest over our climate.

Conclusion

To recap, this paper has delivered the following propositions. Those pursuing the climate market agenda are winning the long 'war of position', most notably through the agency of financial sector, state and international institutional actors, but also through the active support from ENGOs. However, the incomplete nature of the neoliberal climate project highlights distinct possibilities for social and political change. The resulting challenge lies in forging a philosophy of praxis and collective agency capable of inciting a paradigm shift beyond the market, and beyond the dilemmas of liberal compromise. I have proposed that the ENGOs and community groups organising for climate action are limited in their capacity to undo the hegemony of the market agenda. Ambivalence toward the market agenda and a distinct silence in regards to any form of political vision beyond calling for state-led regulation is ultimately serving as implicit support for the carbon market. By way of an alternative, I suggest that generating a popular movement for climate justice is paramount to the struggle against carbon markets, both in its reactive and proactive forms. In light of the strategic questions raised in Cochabamba, a most vital site for movement development will be realising post-capitalist institutional reforms, whilst remaining in sustained struggle for climate justice from below.

This work is a beginning only for political scientists and movement actors seeking the spaces through which a new, more fruitful, agenda for

climate politics might be conceived. I have contended that a neo-Gramscian philosophy of praxis and notions of hegemony and counter-hegemony offer a valuable means through which contestation over climate change can be understood, critiqued and thereby invigorated. Gramscian insights assist a view of the full configuration of collectivities weighing in to the struggle over climate governance. Moreover, explicating the specific philosophies of praxis that figure as sites of consensual legitimation, as well as potential counter hegemony, serve as a means to re-link theory and practice. However, there is much more analytic work to be done in operationalising these ideas and pinning down the basis for a hegemonic trajectory toward climate justice. Further empirical research, prioritising the process of contestation in carbon market formation, will help steer critical analysis (inside and outside academia) forward. Movements for climate justice will lead the way.

Rebecca Pearse is Research Assistant for the Climate Action Research Project (Cosmopolitan Civil Societies Research Centre, University of Technology Sydney)

rebecca.pearse@uts.edu.au

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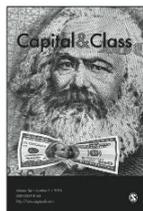
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