TRICKS OF PERCEPTION AND PERSPECTIVE: THE DISAPPEARANCE OF LAW AND POLITICS IN CARBON MARKETS; READING ALEXANDRE KOSSOY AND PHILLIPPE AMBROSI, 'STATE AND TRENDS OF THE CARBON MARKET 2010'

JULIA DEHM*

The World Bank's report, State and Trends of the Carbon Market 2010 ('the Report') descriptively engaged with recent trends in global carbon markets and prescriptively made recommendations for future development. It is a key part of the 'intellectual' infrastructure for growing market governance of climate change and the 'carbon capitalist' accumulation they facilitate. This critical reading of the Report draws attention to the perspective held by market proponents that carbon markets do not exist as ends in themselves, but as means for achieving specific goals. It highlights the Report's disavowal of the need to evaluate markets in relation to their greenhouse gas reductions achievements, prioritising instead an 'internal' evaluation. It examines the relationship between carbon markets and law, highlighting the way the Report presents markets as autonomous and self-perpetuating, although highly dependant upon law for their creation, maintenance and regulation. I argue that not only does the Report disavow the constitutive role of law, but that the neoliberal relationship between carbon markets and law is such that law no longer acts as an external limitation on the market, but as a regulator. The way law produces and regulates carbon markets forecloses more democratic, environmentally effective transitions grounded in climate justice.

I INTRODUCTION

The World Bank's recent report *State and Trends of the Carbon Market* 2010 ('the Report'),[1] coming as it does from an institution which has pioneered the development of, and continues

---

* Julia Dehm is a PhD candidate at the Melbourne Law School, her research focuses on the social impacts of carbon trading schemes on politically and economically marginalised individuals and communities. She is also a climate justice activist who has been active in supporting mobilisations against coal in Australia and organising international solidarity against 'false solutions' to climate change. She can be contacted on dehmj@unimelb.edu.au. Thanks to Margaret Young, James Pollard, Sara Dehm and the two anonymous referees for their insightful comments on earlier drafts of this article. All errors, of course, remain my own.

1 Alexandre Kossoy and Phillippe Ambrosi, 'State and Trends of the Carbon Market 2010' (Report, Climate Finance, The World Bank, 2010).

to promote the growth of international markets in carbon emission reduction units, contains some startling admissions. More startling than the Report's admissions, however, are its absences, gaps and omissions. What is deliberately avoided in the Report, is a discussion of the nexus between the carbon market and its stated (although highly contested) raison d'être, its instrumentalist role as the most cost-efficient and effective mechanism for reducing atmospheric greenhouse gas concentrations. In this article, I discuss the Report's description of the relationship between the market and its stated objective, as well the Report's description of the relationship between law and market governmentality. I argue that whilst the carbon market is constituently reliant upon both law and its public justification as an instrument for cost-effectively reducing greenhouse gas emissions, there is a strong repression of this reliance in the Report. Instead, the Report seeks to present the carbon market as existing autonomously and as both self-generating and self-sustaining. Reading between the lines of this strongly pro-market report, a figure of the carbon market as a delicate, self-referential artificial reality emerges, which regards itself as not subservient to wider public conceptions of the social good. The key concerns which emerge in the Report are about how markets surrounding this new commodity in carbon can continue to grow. However, this growth is reliant upon the language being used to describe carbon commodities becoming more abstract and dangerously disembodied from their social, environmental, legal and political context.

II BACKGROUND TO THE REPORT

The *State and Trends of the Carbon Market 2010* Report seeks to evaluate the evolution of the international market in carbon emissions during recent turbulent economic times. It dedicates specific sections to the European Union Emission Trading Scheme ('ETS'), the development of emission trading schemes in other developed countries, the Kyoto Protocol's flexible mechanisms, the Clean Development Mechanism ('CDM') and the Joint Implementation ('JI') projects and concludes with an optimist assessment of the future outlook for carbon markets. Warreen Evans, the Director of the World Bank's Environment department describes the report (in unsurprisingly glowing terms) as 'a flagship publication for the World Bank' which 'provide(s) the world with objective and well-informed assessments of the carbon market.' He concludes that 'authors have again succeeded in accurately measuring the pulse of the market in an extremely difficult year.'[2]

This Report by the World Bank's Carbon Finance Section is a key text, not only for its descriptions of current trends and its future predictions for the carbon market, but also due to the fact that its authoritative status means its analysis will shape and determine future directions in the carbon market. This authoritative, constitutive status of the Report is due to the World Bank's powerful economic position as well as its powerful position as a producer of knowledge about the project of 'development.' The World Bank plays a key role in maintaining and promoting a form of neo-liberal economic globalisation which is having

[2] The World Bank, 'Global Carbon Market Grows to $144 billion Despite Financial and Economic Turmoil: World Bank Releases 2010 State and Trends of the Carbon Market Report' (News Release, 26 May 2010) <http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_2010_final.pdf>.

adverse consequences for the majority population of the world.[3] The World Bank's preeminent position is reinforced materially through its conditionality-linked lending practices, but also discursively through its collections, dissemination and publication of knowledge about the 'development' project.[4] World Bank's annual World Development Reports ('WDR') are widely recognised as providing useful indicators of future directions in Bank policy.[5] As Bonnie Campbell writes in relation to the 1997 WDR:

> The World Bank now occupies, among the multi- and bi-lateral institutions, the central place as a producer of a new normative frameworks in social and political sphere. Together, they seem to suggest that these norms reflect a world consensus on institutional procedures and arrangements which will best ensure continuing economic development. These norms then become the "rules of the game" which are put forward as having universal validity.[6]

This report plays a similarly descriptive and norm-creating role in relation to carbon markets.

The World Bank describes itself as having played a 'pioneering role in creating the carbon market more than a decade ago.'[7] It is a significant player in current climate finance; it is the trustee of twelve carbon funds and facilities capitalised at over US$2.5 billion which have been contributed to by governments and private companies in the global North for the promotion of carbon mitigation projects in the global South.[8] The Bank is working in 57 countries and has delivered carbon credits to 53 countries, 26 public sector companies and 55 private companies.[9] Additionally, the agreements reached at the United Nations Framework Convention on Climate Change ('UNFCCC') sixteenth Conference of the Parties ('COP 16') meeting in Cancun made the World Bank the trustee of the $100 billion Green Carbon Fund.[10] The Bank's move to create a hegemonic position for itself in climate finance has been viewed with deep mistrust and suspicion from the climate justice movement, and has attracted cries of hypocrisy, given the Bank's historical and ongoing role in financing environmentally destructive projects and ongoing support for fossil fuel and extractive industries.[11] The Bank's move towards promotion of climate finance should not be dismissed as an exercise in mere

---

3 Antony Anghie, 'Time Present and Time Past: Globalisation, International Financial Institutions and the Third World' (2000) 32 *New York University Journal of International Law and Policy* 243.

4 Michael Goldman, *Imperial Nature: The World Bank and Struggles for Social Justice in an Age of Globalization* (Yale University Press, 2006).

5 Anne Orford and Jennifer Beard, 'Making the State Safe for the Market: The World Bank's *World Development Report 1997*' (1998) 22 *University of Melbourne Law Review* 195, 196.

6 Cited in Ruth Buchanan and Sundhya Pahuja, 'Legal Imperialism: Empire's Invisable Hand?' in Paul A Passavant and Jodi Dean (eds), *Empire's New Clothes: Reading Hardt and Negri* (Routledge, 2004), 77-8.

7 Isabel Hagbrink, *Global Carbon Market Grows, Boosting Climate Action*, (26 May 2010) The World Bank <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSDNET/0,,contentMDK:22591167~menuPK:64885113~pagePK:64885161~piPK:64884432~theSitePK:5929282,00.html>.

8 *Ibid*.

9 Amy Horton and Tom Fry 'The Role of the World Bank in Carbon Finance' (Report, The Bretton Woods Project, 2011).

10 UNFCCC, *The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long Term Cooperative Action under the Convention*, Decision 1/CP.16, FCCC/CP/2010/7/Add.1, art 107.

11 Karen Orenstein, 'Capitalizing on Climate: The World Bank's Role in Climate Change and International Climate Financing' (Report, Friends of the Earth United States, 2010).

'greenwash', but rather part of a broader strategy of promoting the power/knowledge regime of green neo-liberalism, 'the Bank's latest and most profound discursive framework.'[12] Green neo-liberalism has reactively allowed the Bank to respond to - but more crucially, incorporate within its activities - many of its environmental critics, and productively enabled the Bank to 'expand into more places and insinuate its worldview into more lifeworlds than ever before.'[13] What is at stake in the green neo-liberalism is furthering the 'restructuring and capitalization of nature-society relations that exist as uncommodified or underutilised by capital markets.'[14]

III INTRODUCTION TO THE CARBON MARKET

The carbon market, enabled by the Kyoto Protocol,[15] is capital's response to the ecological disaster. Rather than question the growth or accumulation imperative, carbon markets turn the idea of 'limits' into a new generator of accumulation, by commodifying and privatizing emission allowance limits. The global carbon market was established by the Kyoto Protocol of the United Nations Framework Convention on Climate Change in 1997. Since then, the international trade in carbon, and, increasingly, bundled carbon financial products, has increased exponentially. Influenced by neo-liberal market driven ideology, carbon trading has become the predominant policy response to the climate crisis, which has been keenly advocated for in key policy reports such as the English Stern Report,[16] the Eliasch Review[17] which examined forest carbon finance and the Australian Garnaut Report.[18] Internationally several regional or national emission trading schemes have been established; EU established its ETS in 2005, in November 2009 New Zealand adopted the first mandatory economy wide ETS outside of Europe, an ETS Bill is proposed in Brazil, in China there are voluntary carbon trading exchanges in Beijing, Tianjin and Shanghai, India's National Action Plan on Climate Change includes market-instruments, in Mexico a voluntary schemes covers 21% of national emissions, the Korean government operates a project-based GHG reduction project and Japan has proposed an ETS scheme. In Australia the Gillard government's *Clean Energy Future Package*, whose centrepiece is a carbon tax, which will become a carbon trading scheme post 2015, has just passed parliament.[19] In America, the passage of various incarnations of US market-based carbon reduction Bills - first the Waxman-Markey Bill, the compromise bill sponsored by Senators Kerry, Graham and Lieberman ('K-G-L') and the current American Power Act proposed by Kerry and Lieberman ('K-L') - though the US Congress and Senate, appear indefinitely stalled, all blocked primarily by conservative political forces.

---

12 Goldman, above n 4, 5.

13 Ibid 6.

14 Ibid 7.

15 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, [2008] ATS 2 (entered into force 16 February 2005) ('*Kyoto Protocol*').

16 Nicholas Herbert Stern, *The Economics of Climate Change: the Stern Review* (Cambridge University Press, 2007).

17 Johan Eliasch, *Climate Change: Financing Global Forests :the Eliasch Review* (Earthscan, 2008).

18 Ross Garnaut, *The Garnaut Climate Change Review: Final Report* (Cambridge University Press, 2008).

19 The package includes 15 Acts, however the main carbon market legal architecture is set out in *Clean Energy Act* (Cth) 2011. For a description of the policy see also 'Securing a Clean Energy Future: The Australian Government's Climate Change Plan' (Report, The Australian Government, 2011) and 'Strong Growth, Low Pollution: Modelling a Carbon Price' (Treasury Modelling, The Australian Treasury, 2011).

The carbon markets have been a massive site for capital expansion and profit making. The global carbon market in 2010 is worth US$144 billion, with 8.7 billion tCO_2e traded[20] and is predicted to grow to an annual market value of US$3.1 trillion by 2020.[21] The majority of this trade came from the EU ETS where US$119 billion in allowances and derivatives were traded. Increasingly the trade was in financial products of emission reduction units, future constituted 73 percent of trade and the spot market increased to 1.4 billion ton and the options market grew 70 percent to 420 million tons.[22] Such speculative trading has prompted environmentalists to raise serious concerns about a ‘carbon’ subprime crisis.[23] Large financial-sector speculators including Goldman Sachs, Morgan Stanley, Barclays Capital, Deutsche Bank, Rabobank, BNP Paribas Fortis, Sumitomo, Kommunalkredit, Cantor Fitzgerald, Credit Suisse and Merrill Lynch are all involved in creating complex new financial instruments out of carbon credits.[24]

Carbon markets are productive not only of economic value, but also increasingly productive of the norms of modes of international climate governance. Bernstein et al argues that the regulation of climate change is no longer governed by centralised multilateral treaty making under the umbrella of the UNFCCC augmented by other non-state activity. [25] Instead they see the governance of climate change as ‘an amalgam of private and public initiatives at multiple scales’[26] of which carbon markets are now globally the most dominant feature.[27]

The *State of the Carbon Market* Report strongly favours the continued growth of the carbon market although carbon markets have been heavily criticised as a ‘false solution’ to the climate crisis by the climate justice movement and other social movements. Sarah-Jane Clifton has demonstrated that carbon markets are ineffective at driving both carbon emissions and stimulating the innovative technological changes that a shift to a post-carbon society necessitates.[28] There is an urgent necessity to embark upon situated trajectories away from fossil fuel dependency. Pursuing only ‘lowest-cost’ abatement options arguably limits our ability to overcome fossil fuel lock-in and address issues of path dependency associated with embarking upon such a transition trajectory.[29] It is the allowances created in carbon cap and trade system for ‘offsets’ such as the JI and CDM credits which have been the most controversial. Recent studies have shown that the majority of CDM projects did not actually

20 Kossoy and Ambrosi, above n 1, 1.

21 Sarah-Jane Clifton, ‘A Dangerous Obsession: The Evidence Against Carbon Trading and for Real Solutions to Avoid a Climate Crunch’ (Report, Friends of the Earth, England, Wales and Northern Ireland, 2009), 4.

22 Kossoy and Ambrosi, above n 1, 2.

23 Clifton, above n 21, 5.

24 Larry Lohmann, ‘Regulation as Corruption in the Carbon Offset Markets’ in Steffen Böhm and Siddhartha Dabhi (eds), *Upsetting the Offset: The Political Economy of Carbon Markets* (MayFlyBooks, 2009), 185.

25 Steven Bernstein et al, ‘A Tale of Two Copenhagens: Carbon Markets and Climate Governance’ (2010) 39(1) *Millennium - Journal of International Studies* 161, 170.

26 Ibid.

27 Ibid.

28 Clifton, above n 21.

29 Larry Lohmann, ‘When Markets are Poison: Learning about Climate Policy from the Financil Crisis’ (Report, The Corner House, 2009), 29.

represent 'real' emission reductions, because the projects were not 'additional'.[30] As such, Campbell, Klaes and Bignell have argued that the policy of carbon trading is 'completely defective' and that 'carbon trading which will lead to a reduction in global greenhouse gas ('GHG') emissions is, and has been from the outset, an impossibility.'[31] In addition, many carbon 'offset' projects have lead to destructive local social and environmental impacts at the sites where they have been imposed.[32]

Whilst discussing the CDM and the role of climate finance the report admits that carbon finance has:

> Not altered historical macro-economic development trends or overcome the sectoral and regional investment barriers faced by underlying projects. Carbon revenues have instead made relatively low-risk investment in proven technologies with marginal rates of return more attractive and profitable, enhancing their chances of being developed and remaining operational.[33]

This is a startling admission, from a report which champions the CDM, to concede that the CDM has failed in its stated objective of shifting developing countries economies from fossil fuel dependency towards a renewable energy trajectory. This Report concedes that the first objective of the CDM articulated in Article 12(2) of the Kyoto Protocol, that of assisting non-Annex 1 countries to achieve their sustainable development goals and priorities is being overridden by the second objective, that is, enabling Annex 1 countries to meet their reduction targets at a lower cost. As such, this admission echoes concerns raised by critical commentators that the CDM is enabling developed countries to avoid most substantial and expensive emission reduction strategies but not delivering promised benefits to developing countries or to aggregate global emissions.

In the next section, I discuss the complicated relation between the carbon market and its stated objectives of reducing greenhouse gas emissions. I seek to demonstrate that carbon markets are functioning primarily to enable the production of economic value through the incorporation of previously uncommodified aspects of nature—or more precisely, ecological limits—into a market framework of calculable economic rationality, rather than driving the necessary transformation of anthropocentric behaviour fuelling climatic change or transition to a low carbon society. This project of 'green accumulation' or 'green growth' has been elaborated and developed in two recent reports from the United Nations Environment

---

30 Lambert Schneider, 'Assessing the Additionality of CDM Projects: Practical Experiences and Lessons Learned' (2009) 9 *Climate Policy* 242.

31 David Campbell, Matthias Klaes and Christopher Bignell, 'After Copenhagen: The Impossibility of Carbon Trading' (Law, Society and Economy Working Paper, No 22, London School of Economics, 2010). For a discussion of the flaws in carbon trading see also Tamra Gilbertson and Oscar Reyes, 'Carbon Trading: How it works and why it fails' (Report, Dag Hammarskjöld Foundation, 2009).

32 See in particular the case studies documented in Larry Lohmann, 'Carbon Trading: A Critical Conversation on Climate Change, Privitisation and Power' (Report, The Dag Hammarskjöld Centre, 2006) and Steffen Böhm and Siddhartha Dabhi (eds), *Upsetting the Offset: The Political Economy of Carbon Markets* (2009).

33 Kossoy and Ambrosi, above n 1, 45.

Programme ('UNEP'), *The Economics of Ecosystems and Biodiversity*[34] and the *Green Economy Report*.[35] Moreover, 'green growth' is a core element of the Earth Summit Rio +20 Conference agenda which will be held in 2012. Both reports argue for the greater valuation of 'nature' in economic terms and the incorporation or realisation of the value of this 'natural capital' into economic modelling, cost-benefit analysis and policy decision-making.

IV RELATION BETWEEN THE CARBON MARKET AND THE 'REAL WORLD'

References throughout the report demonstrate the complicated nature of the relationship between the carbon market and its stated objective of reducing global greenhouse gas emissions. More startling than the Report's admission about the CDM, are the Report's crucial absences, in particular, the Report's lack of engagement with the question of whether the European Union ETS has contributed to the reduction of greenhouse gas emissions, and if so, to what extent. A briefing by Carbon Trade Watch and the CEO demonstrates that the EU ETS has not reduced emissions,[36] but has provided subsidies for polluting industries worth billions of dollars,[37] and allows for more offsets than it requires reductions. Oscar Reyes documents that Phase I and II of the EU ETS generated 19 billion and 71 billion Euros in profits for power companies respectively, and that 20 billion Euros were spent on subsidies to energy-intensive industries, which has primarily lead to increased share prices, rather than investment in renewable energy technologies.[38]

This crucial question of whether carbon markets are leading to a reduction in greenhouse gas emissions is never tackled directly in the Report. However, when evaluating the success of the EU ETS the Report implicitly argues that the carbon market should not be evaluated on the basis of success in contributing to environmental solutions, either in the fetishised terms of CO_2 reductions or more broadly by the extent to which it promotes in a historical and relational view a trajectory away from fossil fuel dependency. Instead, the Report argues that 'as a market mechanism, the EU ETS should be evaluated according to how accurately it has reflected macro-economic trends.'[39] That is, the Report's authors assume that the basis of a 'proper' evaluation of the market should be not external to the market but internal to itself. To them the basis of 'success' of a carbon trading regime should not be assessed according to its effects on the climate but the extent to which it produces and reproduces its own market logic in a method which is consistent with other commodity markets. What is key to 'success' in this formulation is the extent to which a representation system which can self-support and self-perpetuate itself has been established, not the relationship between this representational

34 TEEB, 'The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A Synthesis of the approach, conclusions and recommendations of the TEEB' (Report, United Nations Environment Program, 2010).

35 'Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication' (Report, United Nations Environment Programme, 2011).

36 The Carbon Trade Watch report argues that emissions had increased 3.5 percent in 2010 from 2009 levels, Oscar Reyes, 'EU Emissions Trading System: Failing at the Third Attempt' (Report, Carbon Trade Watch and Corporate Europe Observatory, 2011). Recent findings from the UN World Meteorological Organisation show that greenhouse gas concentrations in the atmosphere are not 389 parts per million (ppm), and increase of 2.3ppm between 2009-2010 (compared to average annual increases of 1.5ppm in the 1990s) 'Greenhouse gases soar', *The Age* (Melbourne) 22 November 2011.

37 Reyes, above n 36.

38 Ibid.

39 Ibid 6.

system and 'reality'. That is, the market explicitly resists such a mediating relationship, it seeks to exist for itself, and have no prior, external purpose or a purpose subsequent to it. However, as Peter Newell and Matthew Peterson stress carbon markets are—or *should* be—different from other markets, they cannot be '*ends* in themselves' but can only legitimately exist as 'a means to achieve a specific social purpose.'[40] The denial of this stated social purpose and the need for an 'external' rather than 'internal' basis of evaluating the 'success' of carbon markets in the Report is demonstrative of a dangerous free-market perspective from key players in the development, promotion and growth of carbon markets. Carbon markets are depicted as 'neutral and natural social institutions' with no goals other than maximising the profit opportunities of market participants.[41] As such, the Report is demonstrative of the prioritisation of 'economic' rather than 'environmental' outcomes in the process of carbon market development, promotion and growth.

However, elsewhere in the Report this repressed relation between the market and carbon reductions resurfaces. The Report admits that evidence of carbon emission reductions are crucial not in relation to the 'success' of the scheme—which is evaluated internally—but in relation to its *political viability*. It notes that 'the fact that companies have achieved true emission reductions regardless of trade volumes and in the presence of sophisticated financial instruments is critical to the political viability of the EU ETS.'[42] As such, success in achieving emission reductions is not the basis upon which the scheme will be evaluated; however, the market recognises that it is necessary to have emission reductions (or at the very least cultivate the *perception* of emission reductions) in order to politically justify its existence. This internal confusion speaks of the Report's desire to present the carbon market as existing autonomously, with no objectives or basis of evaluation outside of itself. However, to sustain this representation of itself the carbon market needs to deliberately repress the fact that the carbon markets predominance in climate policy is dependent upon external factors such as the extent to which it is, or is seen as, producing a reduction in carbon emissions and hegemony of a neo-liberal market ideology.

Reading between the lines of the Report, clear tensions are evident between the stated environmental objectives of carbon markets and market rationalities, including the drive for profit and accumulation and desire for predictability. These tensions are most stark when the Report explicitly describes dramatic reductions of greenhouse gasses—an undoubtedly environmentally positive situation - as having negative consequences for the market, when such reductions happen in a way which is unpredictable and unforeseen. The Report describes the ETS as '*scarred*'[43] by the economic downturn caused by the global financial crisis, because the recession lead to the most significant drop on greenhouse gas emissions in a decade. Greenhouse gas emissions dropped by 11 percent in 2009 which the Report describes as 'a more dramatic decline in emissions than most players could have imagined.[44] Here there is a clear tension between market rationality and its inherent growth imperative driving the carbon market and the urgent environmental objective of rapidly decarbonising society. Tellingly, market analysts see a drop in greenhouse gas emissions as problematic, because it

40 Peter Newell and Matthew Paterson, *Climate Capitalism: Global Warming and the Transformation of the Global Economy* (Cambridge University Press, 2010), 142.
41 Ibid 142.
42 Ibid 6.
43 Kossoy and Ambrosi, above n 1, 12.
44 Ibid 12.

simultaneously represents a drop in demand of carbon and carbon offset credits. The Report notes the financial turmoil led to a 'substantial decline in compliance needs over the 2008-12 and a reduction in overall market activity'[45] and thus that 'when emissions fell due to the worst recession in a generation, carbon prices fell in tandem.'[46] The Report later notes that 'industrial activity is on the rise and, accordingly, demand for EUAs [European Union Allowances] should grow modesty.'[47] As such, this perverse market rationality actually encourages increases in greenhouse emission, because these increases create a correlating increase in demand for offset credits and thus overall carbon market competition, increase offset credit prices and overall market value. What is of key concern to the market is not whether emissions increase or decrease per se, but the *predictability* of any emissions increases or decreases and thus the ability to bring this within the realm of *calculability*. What is sought overall by the market—both from the fluctuations of greenhouse gases in the atmosphere and from political decisions—is what they describe as 'visibility',[48] the ability to foresee and predict. Thus, in relation to sharp, unexpected reductions of CO_2 emissions which are urgently needed, this market rationality comes in clear tension with environmental objectives.

V RELATIONSHIP OF THE CARBON MARKET TO LAW

The *State of the Carbon Market Report* provides pertinent insights into the complex and contradictory relationship between the market and international regulation in climate governance. The question of the relationship between carbon markets and law, however, is never addressed directly in the Report. The word 'law' is mentioned only once, tangentially in the Report, in contrast to much more frequent references to 'regulation'. This lack of emphasis on the role law plays in carbon markets is I argue itself indicative of the politics of the Report. First I discuss a particular fantasy sustained in the Report whereby the carbon market is presented as autonomous from either law or political decisions made in international legal forums such as the UNFCCC. I seek to unsettle this fantasy, by highlighting the way carbon markets are constitutively dependant upon both law and political decisions for their creation and continued existence. After discussing the failure of the Report to engage directly and explicitly with the question of the relationship between law and the carbon market, I shift my attention to the scattered references to the UNFCCC and regulation throughout the Report. I do this in order to ask what is the kind of regulation being called for by the Report?

The conclusion of the Report deals most explicitly with the way a post-2012 UNFCCC regime will affect the outlook of the carbon market.[49] Although there are no clear agreements between the state parties of the UNFCCC about many aspects of a post-Kyoto agreement, the Report argues that, despite these (and other) blocks in the negotiations, there is a growing consensus on the need and role of carbon markets. The Report's authors acknowledge that questions about the role of carbon markets have been contentious within and outside of the UNFCCC. They note that that there have been 'difficult discussions' over the role of markets within the climate regime within the UNFCCC forum in the past two years.[50] In particular,

45 Ibid 55.
46 Ibid 7.
47 Ibid 11.
48 Ibid 55.
49 Ibid 60-62, section 5.2 'Markets and a Post-2012 International Regime'.
50 Ibid 61.

such contestation about the role of markets has been particularly acute in the Ad hoc Working Group on Long Term Cooperative Action ('AWG-LCA') negotiating stream in relation to whether emerging mechanisms, such as Reducing Emission from Deforestation and Degradation ('REDD+'), should be market or fund based.[51] More generally, the authors note the political contestation the Copenhagen Accord created between state parties, and ongoing contestation about the form of any post-Kyoto agreement.[52] However, despite the controversial status of the Copenhagen Accord, the Report's authors optimistically note that particular references in the Accord 'may reflect an emerging consensus on markets'.[53] Further, they argue there is a more general emerging 'recognition that the private sector cannot be neglected in any new international agreement that might be formulated'[54] and conclude that 'recognition is growing that [markets] must form an integral part of the international climate solution'.[55] They thus position carbon markets as an inevitable and broadly accepted element of the international climate governance architecture. An underlying assumption of the Report appears to be that the future of the carbon market is guaranteed and that decisions taken at the UNFCCC, or in other fora, will at most affect the form of the market, but not its existence. Tellingly, in its discussion of the future outlook for carbon markets, a discussion of future market trends[56] precedes a discussion of future legal regulation and what form the post-2012 UNFCCC regime will take.[57] The reader is left with the impression that if the market will be destabilised, it will be through these market forces of supply and demand which may affect, shift and challenge the international carbon market, but that any legal developments will not disrupt the market's position or growth.

Thus an underlying friction is evident in how the relationship between carbon markets and international legal decisions is represented within the Report. There is a recognition that decisions made at UNFCCC Conference of the Parties are crucial to structuring and

---

51 For discussions around REDD+ see Feja Lesniewska, 'REDD: The Copenhagen Effect' (2010) 6(1) *Law, Environment and Development Journal* 102; Chris Lang, 'Why the Carbon Stored in Forests Should not be Traded' in Steffen Böhm and Siddhartha Dabhi (eds), *Upsetting the Offset: The Political Economy of Carbon Markets* (MayFlyBooks, 2009); Rosemary Lyster, 'The New Frontier of Climate Law: Reducing Emissions from Deforestation and Degredation' (Working Paper, Sydney Law School, The University of Sydney, 2010); Ian Fry, 'Reducing Emissions from deforestation and Forest degredation: Oppertunities and Pitfalls in Developing a New Legal Regime' (2008) 17(2) *Review of European Community and International Environmental Law* 166. See also Charlie Parker et al, 'The Little REDD+ Book: An Updated Guide to Governmental Proposals for Reducing Emissions from Deforestation and Degredation' (Report, Global Canopy Programme, 2009) for a summary of various national and NGO position on the question of whether REDD+ should be market or fund-based.

52 However, to describe the various state reaction to the Copenhagen Accord as 'show(ing) a diversity of political interests' (Kossoy and Ambrosi, above n 1, 61) is arguably an understatement. For a discussion of the Copenhagen COP see Daniel Bodansky, 'The Copenhagen Climate Change Conference: A Post-Mortem' (2010) 104 *Sustainable Development* 10.2139/ssrn.1553167; Radoslav S Dimitrov, 'Inside Copenhagen: The State of Climate Governance' (2010) 10(2) *Global Environmental Politics* 18; and Peter Christoff, 'Cold climate in Copenhagen: China and the United States at COP15' (2010) 19(4) *Environmental Politics* 637.

53 Kossoy and Ambrosi, above n 1, 61.

54 Ibid 61.

55 Ibid 62.

56 Such as government, private sector and residual demand and supply trends for CDM, JI and assigned amount unit ('AAU') credits.

57 Ibid 55-62, section 5.1 'Demand and Supply Balance' and 5.2 'Markets and a Post-2012 International Regime'.

generating demand for international carbon markets, yet the Report seeks to depicts the markets as having taken on a life of its own and existing beyond the possibilities of being created or destroyed by political decisions. As such a clear tension exists between the market's self-representation of itself as self-generating and its repressed constituent reliance on law and political regulation. This tension is highlighted by Bernstein et al in their description of parallel conferences at Copenhagen; the tense and protracted UNFCCC negotiations and the carbon emission trading expo. They argue that 'once created these markets have taken on a life of their own and exceed the capacities of states to control them.'[58] This attitude - that the market will grow irrespective of political decisions taken - is expressed in an interview with Joelle Chassard, Manager, World Bank's Carbon Finance Unit.

> Even if it is taking time for the global community to put in place an international climate regime post-2012, with the resulting uncertainties this implies in the interim, we are forging ahead with our work to expand the scope, scale, and range of climate change mitigation activities in the various sectors of our clients' developing economies.[59]

However, carbon markets are dependant upon the state for specific functions, namely the creation of new forms of carbon property and the enforcement of rights in these and the enforcement of contracts, without which carbon markets could not exist.[60] I argue that while the carbon market is dependent upon law for its very constitution, the acknowledgement of this original and ongoing reliance is deliberately repressed. This parallels a broader disavowal of the constituent role law plays for markets, noted by Buchanan and Pahuja in favour of a desire to present the illusion that the 'capitalist market has an existence that is universally productive and simultaneously both autonomous and immanent.'[61]

The carbon market is dependant upon law for its very creation and maintenance. Larry Lohmann argues that there are several crucial steps to the creation of a climate commodity. The first is translating climate change mitigation from a political goal of 'overcoming fossil fuel dependence by entrenching a new historical pathway' to achieving 'measurable, divisible greenhouse-gas 'emission reductions'.'[62] The second step requires the construction of equivalent, tradable reductions by 'abstracting away from place, technology, history and greenhouse gas type'[63] to allow acts which would, in a relational view, contribute very differently to a historical transition away from fossil fuels, to be seen as climatically equivalent, to a reduction in a different greenhouse gas molecule in another place by another technology. The possibility of such carbon dioxide equivalences from the six greenhouse gasses was created by the Kyoto Protocol,[64] in line with the necessary fungibility of commodities to enter the realm of capitalist market exchange.

---

58 Bernstein et al, above n 25, 170.
59 Hagbrink, above n 7.
60 Bernstein et al, above n 25.
61 Buchanan and Pahuja, above n 6.
62 Lohmann, 'When Markets are Poison', above n 29, 29.
63 Ibid.
64 *Kyoto Protocol*, article 5(3). See also Annex A to the Protocol for the list of greenhouse gases.

Although I argue that the Report's overall descriptions of the carbon market seek to repress references to the market's original and ongoing constitution by law, a close reading of the Report finds several slips where it betrays its continuing dependence upon legal regulation. However, what the market urges from law is not constituent power, but rather predictability, certainty and signals; its demand to law is that 'the market needs certainty on its long-term direction' in order to grow.[65] Elsewhere it urges that 'clear policy and regulatory signals must be urgently provided if a stronger global market is to emerge.'[66] The Report notes that political and legislative uncertainty creates clear problems for the carbon market. Copenhagen's 'inconclusive outcome' which 'failed to provide post-2012 visibility'[67] had the effect of 'deepen(ing) the sense of uncertainty over the future of the global emission reduction effort'[68] and US carbon trading increased in anticipation of a climate bill and carbon regulation but then decreased sharply again.[69] The COP at Cancun, according to this rationality, has 'a role to play in the materialisation of this trend; another inconclusive international meeting might depress the market and lead to a new decline in prices.'[70] Again, there are tensions and ambivalences in the Report; it recognises that political decisions affect the market and modify market fluctuations, but resists seeing political decisions as *determinative* of the market; instead a fantasy is maintained of the market having its autonomous agency and existence outside and beyond state or international control. Thus, the Report makes claims that even if the political support for market schemes would falter, such a faltering political will would not be able to undo the carbon market architecture. In relation to the future of the EU ETS, whether the Report notes that although Europe's 'political resolve may waiver if other regions of the world fail to participate with their own carbon reduction schemes' it is 'unlikely that the EU and the EC will unravel the market mechanism that they have invested so much time and political capital constructing.'[71] It emerges that the Report's position is that political change and fluctuations in political will are seen not as creating or destroying markets but as form of 'political risk' which needs to be analysed, taken into account and calculated into market predictions. Also crucial, the Report does not call for a particular *outcome* from UNFCCC COP or domestic political processes; what the market seeks is simply *visibility* - an outcome which is predictable and which can be internalised into market calculations.

This demand for political decisions to provide the market with long term visibility was articulated again in relation to CDM projects. The report considered CDM to be 'at a cross-ways' given that a binding international agreement currently feels too far away, yet necessary 'to provide long-term price signals'[72] and to create the 'certainty of offset demand'.[73] The report notes that this lack of visibility provided by political signals inhibited both demand and supply, given potential buyers such as super funds who had expressed interest in entering the market 'refrained from doing so due to the poor visibility in the offset market'[74] and the

65 Kossoy and Ambrosi, above n 1, 62.
66 Ibid 2.
67 Ibid 38.
68 Ibid 2.
69 Ibid 3.
70 Ibid 11.
71 Ibid 17.
72 Ibid 38.
73 Ibid 38.
74 Ibid 39.

correlating uncertainty about demand dampened CDM project investment.[75] Such visibility from political decisions is crucial to the market:

> Without greater visibility the primary market will become increasingly directionless and prone to following speculative action, rumours, short-term commodity trends and the actions of the few who will seek to close their positions. Under this scenario it is likely that even lower volumes and higher short-term price volatility will emerge.[76]

Similarly, as before, the concern of market analysts is not precisely *what* political decisions will be made at international COP or in local domestic politics, but the *predictability* of these decisions, so that these decisions can become something *internal* to the market logic and enter into its field of calculation. Therefore, the Report's subtle focus is not about dispelling law from market governmentality, but on the specific mode, style and degree of legal intervention in the market.

Generally, governmental intervention in the market is frowned upon, however the Report considers it possible to consider intervention for the 'limited and specific purpose of prudently reducing market volatility,' however it demands that such an intervention must be 'formulaic' and 'not arbitrary and unpredictable, and can be anticipated by the market.'[77] The Report clearly recognises that infrastructure and primarily co-ordination between infrastructures is crucial to a trading market. This infrastructure consists of registries, accounting methods and monitoring, reporting and verification ('MRV') systems.[78] The Report notes that 'improved regulation is required to sustain confidence in market mechanisms and enhance their efficiency, and could ultimately facilitate market growth, increase liquidity and promote a long-term price signal.'[79] It calls for an internationally harmonised regulatory framework and market surveillance system, including a unified legal, accounting and taxation framework, stricter access to registry accounts to prevent fraud, greater transparency, sanctions to discourage market abuse, market surveillance authority and greater coordination with upcoming markets.[80]

In practice carbon markets are neither autonomous nor self-generating. They are, as I have tried to demonstrate, entirely dependant upon political decisions, law and regulation to institute and maintain themselves. Thus, the relationship between 'law' and 'carbon markets' is not one of 'reciprocal delimitations of different domains' nor does law act as an external mode of limitation upon the operations of the carbon market.[81] The relationship reflects that of neoliberal governance, described by Foucault in the *Birth of Biopolitics* where he argues it is no longer a situation of the 'market game, which must be left free, and then the domain in which the state begins to intervene.'[82] Instead, government must accompany the market, 'because pure competition which is the essence of the market can only appear if it is

---

75 Ibid 41.
76 Ibid 38.
77 Ibid 8.
78 Ibid 7.
79 Ibid 9.
80 Ibid 9.
81 Michel Foucault, *The Birth of Biopolitics: Lectures at the College de France 1978-1979* (Palgrave Macmillan, 2008), 121.
82 Ibid 121.

produced, and if it is produced by an active governmentality.'[83] In this mode of governmentality, the market constitutes a general index holding the rules which define governmental action; 'one must govern for the market, rather than because of the market.' As such, rather than law operating to delimit the power of markets, the problem becomes the type of delimitation of government this principle for governing the market demands.[84] It thus raises the pertinent question of what impact the principle of 'what is produced in government is the market' has upon the art of government itself.[85] Neoliberal governance does not demand non-intervention in the market, but rather, permanent vigilance, activity and intervention.[86] The question precisely is one of government style; that is, not of distinguishing between elements that governmental action should or should not touch, but more generally focusing on the question of *how* government 'touches' market phenomena.[87] Thus, what emerges is an exercise of political power which is modelled on the principle of a market economy.[88] However, whilst governmental action is required to constitute and produce the market, governmental action must not intervene in the effects of the market, or correct the destructive effects the market has on society.[89] As such, the neoliberal relationship between carbon markets and law is such that law no longer acts as an external limitation on the operations of markets, but as regulation *for* the market.

VI TRICKS OF PERCEPTION AND PERSPECTIVE

The position of carbon markets as the predominant global policy response to the climate crisis presents clear problems. Carbon markets are failing to deliver the steep reductions in greenhouse gas emissions which are urgently necessary. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change presents compelling evidence of the urgent need to reduce global greenhouse gases by 50 to 85 percent by 2050 to have a chance at limiting warming to 2.0-2.4 degrees Celsius and sea level rises to 0.4-1.4 metres.[90] Other reports present an even starker picture of the climate crisis, demanding even faster and more drastic action to avoid irreversible climatic tipping points.[91] Given that the global North's has greater historical and continuing responsibility for greenhouse gas emissions and greater financial capacity to take action, justice considerations demand that greenhouse reductions of over 90 percent are made in 'developed' countries in the next few decades. The policy of carbon trading has chosen to respond to these climatic limits through commodifying them and trading the idea of the limit. These commodified emission units have thus been placed within a market system whose rationality is that of a perpetual growth imperative. As demonstrated above, this growth imperative inherent in carbon markets comes into direct conflict with the environmental objectives of reducing greenhouse gas emissions. Moreover, as discussed above, law no longer acts as an external limitation on the operations of markets, but as regulation *for* the market. As such, by approaching the question of regulating climatic limits

---

83 Ibid 121.
84 Ibid 121.
85 Ibid 121.
86 Ibid 132.
87 Ibid 133.
88 Ibid 133.
89 Ibid 145.
90 *Climate Change 2007: Synthesis Report* (Synthesis Report, Intergovernmental Panel on Climate Change, 2007) <http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms5.html>.
91 David Spratt and Philip Sutton, *Climate Code Red: the Case for Emergency Action* (Scribe Publications, 2008).

through a market framework, the idea of climatic limits has been superseded by capital's incessant drive towards expansion and growth.

Secondly, carbon markets fail to address the structural causes of climate change. It repositions markets as the 'solution' to the crisis, although more critical perspectives recognise that the climate crisis is itself a product of specific modes of capitalistic production and distribution.[92] The climate crisis is not separate from, but deeply embedded in, these differentiated relations of power. Beyond an environmental crisis, it is a social crisis, a crisis caused by global discrepancies: discrepancies in wealth, consumption, power and vulnerability.[93] The difference between those who have caused the climate problem and thus need to take primary responsibly for mitigation and adaptation, and those who are most vulnerable to and have least capacity to adapt to the effects of the crisis, is stark. Rather then addressing and ameliorating these global discrepancies of power, carbon markets risk exacerbating these. The carbon market enables the site (and to some degree the temporality) of the emission reductions to be displaced geographically, based upon where global lowest-cost abatement and thus highest levels of global efficiency can best be achieved. As such, the framework for determining the appropriate site for emissions reductions shifts from being determined by the principle of 'common but differentiated responsibility' central to the UNFCCC[94] which accorded primary responsibility to countries of the North, due to both their historical responsibility for GHG emissions and their greater economic capacity to make reductions, to being determined by a more economically-based cost-benefit analysis. Given questions of cost and benefit are made in an international framework in which lives are unequally valued[95] and positioned differentially in a calculus of the grievability and the disposability of life,[96] carbon markets risk re-perpetuating inequalities.

Finally, there is increasing empirical and sociological evidence that carbon markets and offset commodities are not leading to necessary greenhouse gas emission reductions nor promoting pathways to low carbon futures, but are instead enabling elite capital accumulation from the privitisation and trading of the atmosphere (which was previously seen as a global commons). Key players in the international carbon market are financial-sector speculators trading in financial products including derivatives, options and futures, driven primarily by profit maximisation rather than the social good. Chapter 4 of the Report commences with an Escher-esque image. This image offers many rich metaphorical representations of and allegorical allusions to the critique of carbon markets. The image depicts a bounded space, characterised by multiple simultaneous sources of gravity, a feat impossible according to the conventional laws of physics. Multiple stairways simultaneously ascend and descend in divergent

---

92 Kolya Abramsky and Massimo De Angelis, 'Introduction: Energy Crisis (Among Others) Is In the Air' (2008-9) 13 *The Commoner* 1.

93 Victoria Tauli-Corpuz and Lars-Anders Baer, Special Repporteurs, *Results of the Copenhagen Meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change; Implications for Indigenous Peoples' Local Adaptation and Mitigation Measures* UN ESCOR, Permanent Forum on Indigenous Issues, 9th sess, E/C.19/2010/18 (19-30 April 2010) [8]. <http://www.un.org/esa/socdev/unpfii/documents/E.C.19.2010.18EN.pdf>, para 10.

94 *United Nations Framework Convention on Climate Change,* opened for signature 9 May 1992 [1994] ATS 2 (entered into force 21 March 1994) art 3(1).

95 The starkest example of this is the notorious leaked memo by then World Bank Chief Economist Lawrence Summers, discussed in Lohmann, above n 29.

96 Judith Butler, *Frames of War: When Life is Grievable* (Verso, 2009).

directions, and move towards and away from each other in an endless maze. It resembles an uninhabited, figureless depiction of M.H Escher's *Relativity* (1953), in which stairs join to each other in infinite loops. This reality is impossible to build, and can only be drawn due to quirks of perception and perspective. Escher's lithograph makes explicit that in such a space, things that natural laws teach us are contradictory, such as two people simultaneously walking up and down the same stairs according to their different sources of gravity, can be reconciled.

The utopian dream this picture represents is the possibility of a constant movement, in particular a constant climbing of staircases, which is without beginning or end, which has its parallels in the neoliberal dream of endlessly increasing economic growth. Ecological and social constraints pose clear limitations on capitalist expansion. These tensions between life and capital, growth and limits are at the heart of the climate crisis.[97] I argue that capital has sought to avoid this tension between growth and limits, by creating a market from quantifying emission allowance limits. This exodus into a world of 'fictitious capital' echoes the shift towards financialisation in the global economy in the past three decades.[98] In the realm of financialisation, where paper claims to wealth 'creates purchasing power unrelated to the value in production, consumption or physical assets' there is a greater 'opacity' or distance from material constraints. Guttman argues that 'unlike physical capacity constraints pertaining to plant and equipment, financial markets are limited only by the collective imagination of their users, the traders.'[99] The escape into a realm of carbon financialisation thus allows the antagonism between capitalist growth and ecological limits to be deferred, or as Midnight Notes have argued, to make profits without needing to directly confront the people and environments that are being exploited.[100] This process of abstraction, in which 'value' becomes more and more divorced from the material, can only be sustained by an increasingly circular, self-referential, closed and ungrounded representational system. As such, this image pictorially represents the abstract artifice of the carbon market maintained by a self-referential closed reality in furtherance of dreams of endless economic growth.

However, this move into a realm of 'fictitious capital', through increasing tricks of perception and perspective, does not resolve, but only displaces the antagonism at the heart of the climate crisis. The essential gravitational grounding missing in the celebration of fictitious value created through the exchange of and speculation upon carbon commodities is precisely that of the lived and experienced material reality of climate change. As Peter Newell and Matthew Paterson warn, the

> Seemingly abstract exchanges and flows of fictitious commodities have real life consequences. They determine who is exposed to famine and disease, who will be exposed to extreme weather events and who has the means to survive. The circuits of capital are literally aligned with the cycles of life and death.[101]

Already an estimated 150,000 people a year are dying from climate change related disasters

---

97 Turbulence, 'Life in Limbo?' (2009) 5 *Turbulence: Ideas for Movement* 3, 6.

98 Robert Guttmann, 'A Primer on Finance-Led Capitalism and Its Crisis' (2008) (3/4) *Revue de la Régulation, Capitalisme, Institutions, Pouvoirs* 1. See also Costas Lapavitsas, 'Financialised Capitalism: Crisis and Financial Expropriation' (2009) 17 *Historical Materialism* 114.

99 Guttmann, above n 98, 9.

100 Midnight Notes Collective and Friends, *Promissory Notes: From Crisis to Commons* (2009), 5.

101 Newell and Peterson, above n 40, 183.

and effects and scientific modelling presents terrifying future predictions of social and ecological disaster.[102] This is the stark material reality which must propel urgent action for climate justice.

VII BEYOND MARKETS: THE CALL FOR CLIMATE JUSTICE

My reading of the *State and Trends of the Carbon Market* demonstrates that although the market's relationship to the material is deliberately denied in the Report, it at certain points 'slips' to acknowledge this repressed reliance. Similarly, I have shown that although the Report seeks to present the carbon market as autonomously existing, self-generating and self-sustaining, a close reading again shows several 'slips' and grudging acknowledgments of the market's repressed constituent reliance upon its political justification and law. This repression of ecological materiality and legal constitution is a key aspect of the market's self-legitimatisation. When we foreground the constituent role law plays in building and sustaining carbon markets, it is clear that the role technical legal regulation is playing is deeply political. The argument about the mutual interdependence and constitution of law and the market does not imply that there is some sort of harmonious balance or equilibrium between the two, but rather raises serious questions about how this interdependence between law and the market changes the *nature* and *authority* of law itself. In answering the demand to exist as a managerial prop for the market, I argue, international environmental law forecloses possibilities for climatic justice.

However, the manner in which discourses around carbon markets *disavow* their constituent reliance upon both law and public legitimacy opens up a space for intervention. Reemphasising this disavowed reliance unsettles the fantasy generated that markets are both autonomous and universally productive. It is useful to remind ourselves that carbon markets are not something created which are now out of our control, but are constituently dependant upon political legitimacy and legal regulation for their ongoing rearticulation. Moreover, dismantling the market subsumption of production and agency reclaims collective human creativity as the site of both agency and production. It is the collective human communicative creativity which enables us to envision and then embark upon situated historical trajectories away from fossil fuels and carbon intensive land uses, and the political and social contestation this demands. These contestations around such fundamental transitions, both in terms of visions of what a 'low-carbon future' would look like, and the process by which we arrive at it, will necessarily be driven by collective democratic deliberations, rather then the 'automon agency' of a market.

Outside of protracted UNFCCC negotiations and consensual carbon market climate governance, visions of climate justice are being developed and articulated by grassroots social movements. They call for greater localised control and sovereignty over food, energy, land and water resources.[103] The KlimaForum Statement coming out of the civil society

---

102 'WHO quantitative assessment, taking into account only a subset of the possible health impacts, concluded that the effects of the climate change that has occurred since the mid-1970s may have caused over 150,000 deaths in 2000.' World Health Organisation *Climate and Health: Fact Sheet*, (July 2005) World Health Organisation <http://www.who.int/globalchange/news/fsclimandhealth/en/index.html, accessed 31 August 2011>.

103 'System Change - not Climate Change: A People's Declaration from Klimaforum09' (2009), 1 <http://declaration.klimaforum.org/>.

Copenhagen counter-summit and The Cochabamba Protocol: People's Agreement on Climate Change and the Rights of Mother Earth[104] both reject market-oriented 'false solutions' to climate change and instead call for 'democracy and decision-making, power over social knowledge and the means of production.'[105] These articulations also point the way to a repositioning of ecological limits in a way which does not subject them to commodification and trade in markets. Instead, we can start to imagine ecological limits not a product of an external reality, imposed from 'outside' but precisely socially produced and created by our value practices; that is, created precisely by the ethics with which we cohabit the world with other humans and other species.

[104] 'The Cochabamba Protocol: People's Agreement on Climate Change and the Rights of Mother Earth', (26 April 2010) <http://climateandcapitalism.com/?p=2255>.

[105] Ulrich Brand et al, 'Radical Climate Politics in Copenhagen and Beyond: From Criticism to Action?' in Nicola Bullard Ulrich Brand, Edgardo Lander and Tadzio Mueller (ed), *Contour of Climate Justice: Ideas for Shaping New Climate and Energy Policies* (Occassional Papers Series, Critical Currents No 6, Das Hammarskjöld Foundation, 2009).