

Containing climate change: The new governmental strategies of catastrophic environments

EPE: Nature and Space

0(0) 1–20

© The Author(s) 2020



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/2514848620902384

journals.sagepub.com/home/ene**Nicholas Beuret**

University of Essex, UK

Abstract

The only existing plans to arrest dangerous climate change depend on either yet to be invented technologies to keep us below 2°C or on crashing the world economy for decades to come. The political choice appears to be between doing what is scientifically necessary or what is politically realistic; between shifting to an entirely different kind of global socio-economic system or suffering catastrophe. We are thus in a moment of governmental impasse, caught between old and still-emerging political rationalities. Working through the liminal governmental role of environmental non-governmental organisations, this paper explores the shift from governmental regimes centred on biopower to ones that work through the register of geopower, from governing life to governing the conditions of life. Confronted with climate change as an irresolvable problem, what we find emerging are techniques that aim to contain the worst effects of climate change without fundamentally transforming the global economy.

Keywords

Climate change, governmentality, non-government organisation, geopower, containment

Climate change has become a problem without a solution. Scientific reports suggest we have arrived at the moment where there are no longer any reasonable actions we can take to solve climate change. While there are innumerable media articles outlining policy steps and investment programmes that could save the planet, for many scientists these are just wishful thinking, a kind of cruel environmental optimism (Berlant, 2011) where hope is invested in a fantasy that will never be realised. Plans to mitigate dangerous climate change depend

Corresponding author:

Nicholas Beuret, Essex Business School, University of Essex, Wivenhoe Park, Colchester CO4 3SQ, UK.

Email: nb17913@essex.ac.uk

on yet to be invented technologies to keep us below 2°C or on crashing the world economy for decades to come (Anderson, 2013). Existing forms of governance have reached an impasse where previous modes of governance have, or are, losing their efficacy. Yet this moment of ‘dithering’ (Berlant, 2011: 4) is also paradoxically a space of governmental innovation.

This paper explores how politics is being practiced in this moment of governmental impasse through investigating an environmental non-governmental organization’s (ENGO) climate change campaign. Focusing on the ENGO Friends of the Earth England, Wales and Northern Ireland (FOE-EWNI) I examine four key transformations of environmental (eco)governmentality – the role of failure, the articulation of the population as a problem for politics, the normalisation of self-restraint and the Statification of governmentality. I draw out the contours of these transformations through a series of scenes drawn from the campaign that secured the *Climate Change Act* – the world’s first climate change law, enacted in the UK in 2008.

I explore how these transformations suggest the emergence of a new governmental regime, one marked by geo- rather than biopower (Bonneuil and Fressoz, 2016: 88), and organised around the logic of containment, of both climatic excesses and an excessive human population. I draw on in-depth interviews with five (now ex) campaigners from FOE, campaign and organisational documents, as well as materials from the connected environmental milieu. I focus on the campaign for the *Climate Change Act* from 2005 to 2009, a campaign that is symptomatic of the current state of governmental approaches to climate change and as such of contemporary governmental experiments with carbon limits.

My interviewees were chosen specifically for their depth of knowledge of both FOE and the broader ENGO and NGO movement, both in the UK and internationally. While the sample size is small, necessitating the caveat that the speculations, suggestions and conclusions that follow are necessarily partial and incomplete, as a group of highly informed and engaged interviewees their contributions are significant and indicative of broader tendencies. The approach I have taken aims to mobilise the interviews and other materials in order to speculate on what I consider to be an emerging political rationality: the logic of containment. As such, while necessarily partial and limited, with this paper I am looking to produce resonances with other efforts to approach contemporary ‘politics of catastrophe’ (Aradau and Van Munster, 2012), as well as alternative approaches to contemporary governance, including contemporary political currents such as the international ‘climate school strikes’ movement and, in the UK, the activist network Extinction Rebellion, the series of policy initiatives around what has been called the Green New Deal or elsewhere a ‘net-zero’ carbon policy.

Behind these recent political shifts is an understanding that climate change has become more than a crisis: it is properly catastrophic. This shift signals a transformation in how crisis politically functions. Crisis is often understood as an event that orders history, making progress possible as limits or internal contradictions are overcome (Roitman, 2014). Crises are situations through which governmental regimes and forms of capitalist accumulation come into being and develop. The transition from one relatively stable climatic regime to the un-ending disaster that is climate change marks a moment where crisis ceases to be the engine of history. Crisis is no longer the promise of progress, but a terminus – an end without recovery or renewal.

While there are numerous ad-hoc programmes emerging from a range of different social and governmental regimes to manage the excesses and disruptions produced through climate change, none of them will stop the dangerous progression of climate change.¹ From military doctrines that seeks to wage resource wars in increasingly hostile environments, to

border regimes that attempt to hold back a feared tide of climate refugees, land grabs securing agricultural land for future population growth, the marketisation of forests and the atmosphere, the proliferations of new walls and enclave societies, to the development of global agreements and national carbon budgets: all that these projects do in the end is seek to minimise how bad climate change will be. They are all bound together as political projects as attempts to secure climate change's least bad outcome.

While this paper focuses on political shifts in the Global North, aiming to shed light on how those countries overwhelmingly responsible for climate change are undergoing governmental transformations, the purpose is not to obscure the varied, already-existing effects of climate change as they intersect with wider structural political, cultural and economic forces and inequalities, increasing the vulnerabilities of powerless and marginalised people in the Global South who have contributed next to nothing to global warming. Nor is the aim to suggest change is and can only occur within and through the institutions of the Global North. Nor, finally, is the focus on governmental institutions meant to suggest that climate change is either a 'national' problem or one of 'humanity' as an undifferentiated mass. Climate change, along with other contemporary ecological disasters, is the consequence of both capitalism's endless expansion and the ongoing effects of colonialism. The purpose of focusing on shifts within ecological governance in the Global North is precisely to take up the challenge of understanding how climate change will provoke political action within an uneven, inequitable and conflict-driven global political system, one profoundly shaped by the persistent legacies of capitalism and colonialism.

Ecogovernmentality

The concept of ecogovernmentality expands on Foucauldian notions of governmentality by involving more-than-human actors in governmental regimes, taking the more-than-human world as both the active medium of social life and the object of political action. Ecogovernmentality is an approach to governance where the objectives of governance are expanded to include ordering the natural world and producing specific historical environments, and the means of governance expanded to include both 'natural' and technoscientific practices, institutions, entities and knowledges (Braun, 2013; Luke, 1999; Malette, 2009; Methmann, 2013; Stripple and Bulkeley, 2013).

Much ecogovernmental literature focuses on how nature is governed or used to govern in ways that produce or support specific regimes of capitalist accumulation. As such ecogovernmental regimes are understood to be historically specific, where an environment is produced as a particular kind of historical nature governed by 'eco-managerialists' (Luke, 1999: 103) through technocratic practices and modes of knowing. From liberal to neoliberal natures, ecogovernmentality has been a crucial element within (neo)colonial expansion, the rise of mercantile, industrial and neoliberal capitalisms, and various racialised and gendered modes of rule and accumulation.

Across these varied regimes, how ecogovernmentality constitutes the State as both a specific set of institutions, policies and laws and at the same time a normative ideal that shapes political praxis is a crucial question. It is all the more crucial vis-à-vis climate change as the State is often the centrally defined and privileged political actor within environmental treaties, campaigns, policies and calls for action.

The State, as I am mobilising the concept, has a dual character. It is a 'structural effect' (Mitchell, 1991: 94) – a normative ideal that organises the social and governmental fields, produced through the institutions of governance and the ideas, habits and actions of those that govern and are governed. At the same time, mindful of the very real violent effects that

the State's institutions have, and the hierarchical structure of the institutions that comprise the State, the State is clearly also more than a diagram or effect and is a more-or-less cohesive entity capable of organising territories, populations and projects according to strategies, policies and plans.

That the latter aspect is more than 'just' an effect is crucial not only in accounting for the racist violence enacted consistently across various State functions, but also for understanding how environmental regulations such as climate change laws are instituted and enacted insofar as they are enacted on an often-recalcitrant socio-economic body. As an effect, a normative political ideal and a series of social institutions with coercive capacities, the State constitutes a terrain of conflict.

Within this field, conflict takes place between not only those that would govern and those that resist being governed, but between governmental actors over the question of how and who should govern and what are proper matters of government. As a field, governmentality is never organised around a singular logic nor entirely populated by a well-defined set of actors. Rather, what we see is a proliferation of governmental logics and regimes of capitalist accumulation, many of which have arisen from mutations and corruptions of neoliberal axioms. Governmental logics are, in turn, often cobbled together in ad-hoc fashions (Braun, 2013), bringing together novel innovations with existing or previous practices and rationales.

Recently it has been suggested that the compound social, economic and ecological crises of the contemporary moment denotes a shift in the character of the relationship between the human and more-than-human worlds, one where accumulation and governance itself have both come into not only question but crisis (Aradau and Van Munster, 2012; Clark, 2014). Bonneuil and Fressoz (2018: 88) offer a useful framework for understanding the impact of this catastrophic convergence under the rubric of geopower. They suggest that over the course of the past 60 years a new mode of power has emerged, first in the shadow of biopower, now in parallel with it (if not superseding it). This mode of power is bound to the imaginaries of the global environment and the technoscientific processes that have created the Earth's interlocking biomes and processes as a kind of planetary infrastructure (Blok et al., 2016).

Geopower takes leave of the nation as the body to be governed, and focuses on controlling and optimising the biosphere as a single system (Bonneuil and Fressoz, 2018: 89). Geopower shifts the governmental emphasis away from the economic realm to the ecological: the focus on the life of a specific population to life in general. In doing so, the threat of extinction comes to supplant the threat of contamination that characterises biopower (Foucault, 2004; Povinelli, 2017: 55). While a useful provocation, we need to take care not to overstate any break or novelty in the conceptualisation of geopower, and to avoid any totalising articulation of governmental regimes. If we broadly accept Bonneuil and Fressoz's articulation of geopower, we also need to note continuities with Malthusian liberalism (Dean, 2015; Tellmann, 2013), and managerialism (Knafo et al., 2018) as governmental logics.

Tellmann and Dean usefully amend Foucault articulation of liberal governmentality by taking up the neglected work of Malthus as one of its principal theorists. For both Tellmann and Dean, Malthus set out a particular account of both population and crisis that had, and continues to have, profound import. For Malthus, the conflict between humanity, or more accurately human desire, and nature was fundamental to both morality and government (Dean, 2015: 22; Tellmann, 2013: 143).

Within Malthus' work, the key distinction is between civilised and savage life – life capable of self-restraint and unrestrained or ravenous life that cannot contain its desire to

consume (Tellmann, 2013: 144). Scarcity and the threat of catastrophe is ever-present (Foucault, 2003: 256; Tellmann, 2013: 137), yet scarcity is not the product of 'nature' but of the lack of restraint found in savage life in relation to nature (Tellmann, 2013: 143–145). Fundamentally, Malthus understood the expansion of unrestrained human desire as the fundamental problem of political economy, where the expansion of savage life left unchecked would produce the various catastrophes (famine, war, etc.) ascribed to overpopulation (Dean, 2015). The threat of scarcity should act as a regulatory device (Tellmann, 2013: 137), yet not all human life is capable of self-restraint: the hierarchy of life meaning that only some 'civilised' people are capable of the necessary restraint, positing the remainder (poor, racialised, indigenous) as peoples in need of both governing and, ultimately, containment lest they produce, through their excesses of consumption and population, catastrophe for all.

Within this lineage we find the articulation of the population as a problem of desire, desire that is always in-excess of and in conflict with the natural world. This approach to population continues well into the present, albeit with periods of more influence than others. We find it as a particularly strong component of environmental thought in the 1970s with the resurgence of the talk of 'limits' through texts such as the Club of Rome report and the Population Bomb. With the return to limits in the 1970s, scarcity takes on a more naturalised meaning (Mehta et al., 2019: 223). While the 'social life' of scarcity has long been contested (Mehta et al., 2019: 222), by this point its meaning had settled on a strong association with growth, progress and the notion of a 'natural limit' that lay outside of the social dynamics of political economy (Mehta et al., 2019: 223).

Talk of limits in modern environmentalism gave way to questions of sustainability in the 1980s and early 1990s (Dryzek, 2005, 2007). Hay (2002: 185) suggests that the eclipse of the discourse of limits was in large part due to the failure of apocalyptic predictions to come true.² Starting in the late 1990s, there has been a powerful resurgence of the discourse of environmental limits, once again hitched to scientific accounts of catastrophic futures, centred on climate change. The recent resurgence of limit-discourse differs from previous iterations in that it proposes that the Earth itself has undergone an irreversible radical transformation (McKibben, 2010; Steffen et al., 2011). Within this iteration, it is consumption and not population per se that is foregrounded. Rather than the lack of civilisation as the issue, what we find with climate change is that civilisation itself becomes the problem, shifting the concern of governance from managing savage life and its tendency to overpopulation, to managing life in general. In particular, what we find within the 'new politics of scarcity' (Mehta et al., 2019) is a technomanagerial emphasis on scarcity as a natural force acting on a pacified economic world, where security comes to the fore as a concern of how to manage socio-economic interactions with natural limits (Mehta et al., 2019: 225).

Managerialism, as a lineage of governmentality (Knafo et al., 2018), differs from Malthusian liberalism insofar as the object of governance is the capacity to govern or manage itself, not an excessive population and its desires. Knafo et al. set an account of managerialism as a form of governmentality that both overlaps and differs from neoliberalism as a rationality genealogically and as knowledge/practice. Genealogically managerialism has its roots not within a 'thought collective' (Mirowski, 2013) or as a reaction to the dangers of social democracy but within the US military and the development of specific organisational practices that both produce and legitimate the right to command/manage (Knafo et al., 2018: 8). It could be suggested that both the earth sciences and the 'vast machine' that enables us to 'know' climate change and elements of modern environmentalism have similar roots in the US military apparatus as managerial governance and logistics (Cowen, 2014; Edwards, 2010; Hamblin, 2013).

Knafo et al. note the managerial governance stems from the incorporation of managerial tools into organisational administration, that is the incorporation of managerialism into organisational governance, starting within its take up within the US military for administering military operations and logistics (Cowen, 2014). The aim of managerialism is not profit per se, nor as with neoliberalism introducing competition and the market as models and norms, but ensuring the right to manage through notions of efficiency and optimisation (Knafo et al., 2018). As indicated above, there is a long history of the proliferation of ecomanagerialist practices and knowledges within environmentalism (Luke, 1999: 103), adding to the thick connections between managerialism and ecogovernmentality.

In response to the inadequacies of neoliberal environmental governance (the failure of which threatens socio-economic catastrophe and future accumulation), there have been a number of attempts to articulate alternate modes of climate governance from within the field of managerial political rationality, most notably around the concept of ‘resilience’ (MacKinnon and Derickson, 2013; Neocleous, 2013). In particular, ENGOs have been at the forefront of developing models and technologies of governance that aim to produce both the ability and the right to manage carbon emissions, and that seek to produce self-restraint as a behavioural, societal and political norm, serving to bring together Malthusian liberalism and managerialism as alternate lineages of ecogovernmentality in (partial) opposition to neoliberal modes of political rationality.

More broadly, the emergence of geopower not only indicates a breakdown in neoliberal modes of governance and the rise of novel kinds of catastrophic political rationalities (Aradau and Van Munster, 2012), but it also marks a decisive shift away from utopian modes of governmentality (Dean, 2010: 44) to what we could call properly dystopian political regimes. It is here that the work of ENGOs is symptomatic of a broader shift underway. With climate change the work ENGOs do shifts from saving nature to saving humanity from nature. Alongside this reorientation towards an environmentalism without nature, the role of the future as a space of potential is transformed. No longer a space of hope, where change can be realised, the future figures as an absolute limit.

ENGOs

ENGOs are laboratories of governance where their politically neutral status, based on the public perception that they exist to ‘do good’ (Jasanoff, 1997: 580; Srinivas, 2009: 615), enables them to act as liminal zones between scientific communities, environmental and social movements and institutions of governance. Like public administration, ENGOs produce the State as an object of concern through their emphasis on government action. ENGO workers are ‘eco-managerialists’ (Luke, 1999: 103), ‘professional-technical workers with the specific knowledge . . . and the operational power . . . to cope with the environmental crisis on what are believed to be sound scientific and technical grounds’ (Luke, 1999: 103). This role requires them to maintain access to the formal mechanisms of government, with their legitimacy underpinned by reference to scientific authority, and often requires the mobilisation of a complex set of strategies that aim to shape policy and legislation (Fisher, 1997: 442; Murphy, 2018).

The role played by ENGOs is often one of reforming existing policies and laws in line with environmental concerns or introducing new problems or issues into the field of governance. As organisations that have commonly emerged from social movements, their role is frequently liminal insofar as they work to translate both scientific and social concerns around the question of the environment into government policy and regulation. Their governmental labour is often at odds with neoliberal rationalities insofar as ecogovernance

seeks as much to mitigate risk as capitalise it, drawing on notions of precaution and prevention as moral and managerial principles (Adams et al., 2009; Aradau and Van Munster, 2012).

As institutions that often seek to ‘do good’ through legislative and policy outcomes, ENGOs need to maintain access to formal government, often securing their legitimacy to do so by both capturing a large public base (via membership or visible support) and mobilising scientific expertise (Fisher, 1997: 442; Jasanoff, 1997: 581), producing ENGOs as institutions of expertise and competence in translating science into policy.

While much could and has been written addressing the more technocratic tendencies of modern environmentalism, what is crucial here is that with climate change a break emerges that forces a separation between neoliberal approaches to governance that centre on financialisation and marketisation and the imperative to arrest carbon emissions. This break is neither absolute nor one that relegates neoliberal governance to history, but rather signals the slackening of the hold of neoliberal political rationalities on governance. With the break, expert knowledge is no longer primarily economic but grounded in the earth systems sciences, where the aim of governance itself becomes a matter of contestation between fostering competitive behaviour and containing excessive carbon consumption. With the emergence of catastrophic climate change comes a break in contemporary governance, with those forms of governance that seek to address climate change turning to non-market political rationales. In particular, what we find within the contemporary ENGO movement in the UK is a shift towards a logic of containment, a logic that differs from the previous iteration of limits discourse in the 1970s and 1980s insofar as the threat of scarcity as a future prospect is gone to be replaced increasingly by a sense that the limit has not only been reached but breached.

The logic of containment is one where those problems deemed to be at the limit of the manageable such as climate change are subject to interventions that seek to ward off their worst effects, while acknowledging that it may well be impossible to stop them completely. This logic acts on populations as always-already excessive: excessive in number and excessive in desire, and thus also in need of containment. Finally, we can note that this mode of governance takes place at the limit of governance; it is of the crisis but not a solution to it, existing in a suspended state between problem and resolution. No solution to climate change is presented, only a less bad outcome.

The limit of what can be governed

Failure is a significant part of how governmental regimes work. Failure works not only to distribute a population around a norm, or to produce a series of functions but to legitimate technologies of power (Dean, 2010: 158, 178, 220). While it has been argued that the failure to adequately address climate change is part of a process whereby neoliberal technologies of government such as carbon markets proliferate (Lohmann, 2015), the failure to adequately address climate change has also provoked a series of governmental innovations and interventions that aim to overcome this shortcoming, from economic rationales for strong action to military doctrines, all of which work at times contrary to neoliberal political rationalities. It has also, at time of writing, led to a resurgence of climate activism in the UK, as well as numerous policy innovations and measures including calls for a Green New Deal or Green Industrial Revolution and various ‘net zero’ carbon policies at national, regional, city and institutional levels.

The ongoing failure to adequately address climate change led the ENGO FOE to pursue a legislative campaign to secure what they argued would be a piece of legislation – the

Climate Change Act – that would begin to tackle climate change in the UK and provide a model for effective action globally. Between 2005 and 2008 the central aspect to this was a campaign focused on securing government legislation to make reductions in carbon emissions law in the UK (Carter and Childs, 2018). This was coupled to a second campaign strand that focused on working at an international level, primarily with other ENGOs and within the UN, that aimed to push for string and binding international climate change agreements.

The logic is really simplistic. Climate change is happening, we need to act now, and the solution is the same logic on the national level and the international level. The logic is we can only drive action if we have rules and an international agreement and a carbon budget. – NGO interviewee *F*

The approach outlined here is that only coordinated global action can solve climate change as a problem and that requires international agreements and ‘rules’ that mandate reductions in carbon emissions in line with ‘carbon budgets’ that set out how much carbon dioxide can be emitted year on year. The *Act* legally obliges the UK government to reduce the UK’s greenhouse gas emissions by 80% by 2050 on 1990 levels. The campaign to secure the *Act* kicked off in 2005 when FOE, working with a cross-party group of MPs, produced a draft climate change Bill. After several years of campaign work, the Bill was passed into law as the *Climate Change Act* in November of 2008.

It was a bitter-sweet moment however as the legislation was understood to be inadequate. Since then a number of accounts of national UK greenhouse gas reduction pledges have been published setting out how existing pledges of emission reductions fail to adequately address climate change (Clark, 2012; Harvey, 2014). They show that the existing pledges add up to more than 2°C – one suggests they add up to a potentially catastrophic 3.5°C (Chapman, 2017).

One of the key scientific interlocutors for FOE was Dr Kevin Anderson of the Tyndall Centre for Climate Change Research. Setting out the vast scale of the required carbon reductions, he argues that there would need to be a period of emissions reductions of 10–20% year on year in order to have a 50:50 chance of maintaining the Earth’s climate below a 2°C increase:

The disastrous collapse of the Soviet Union triggered 5 per cent year-on-year emission reductions for about 10 years – a rate just half to a quarter of what is necessary to give us a 50:50 chance of achieving the 2°C goal. (Anderson, 2012: 24)³

As he goes on to note: ‘we simply have no precedent for transforming our economies in line with our commitments to avoid dangerous (or even extremely dangerous) climate change’ (Anderson, 2012: 24). The Head of Campaigns at FOE had a simple analogy that he used during the campaign to set out the context and importance of the proposed legislation:

Imagine that we were in a car, speeding towards a cliff at 100 mph. You don’t search for consensus amongst all the passengers and slow down to 60 mph, or even 40 mph. Any speed at all means you still go off the cliff. You hit the brakes. Climate change is a matter of life and death, and action is either effective or it isn’t. – NGO interviewee *HoC*

Failure in this context marks an absolute limit of what can be endured, what cannot be suffered. Faced with the catastrophic problem of climate change, failure no longer holds utility as a means of governance. Rather it introduces the problem of scientific necessity into

the terrain of governmentality, a terrain that has its own procedures of legitimacy and regulation, procedures where political realism governs what can and can't be done.

The continued failures of UK governments to introduce substantive measures to transform the major sources of UK emissions, including transitioning away from fossil fuel energy systems as well as tackling the more difficult structural and economic questions, as well as taking measures to reduce the 'imported' carbon emissions embedded in the goods and services consumed in the UK but produced elsewhere, all amount to a significant 'policy gap', one that paints the failure of government in stark figures (Timperley, 2017), one that continues to the time of writing (Gabbatiss, 2019).

Cognitive dissonance

Talking with *N* from FOE, they said that prior to the *Climate Change Act*, 'in legislative terms we [weren't] anywhere near what we need to do. Legislators aren't set up for dealing with this problem'. Noting the gap between what would be required to regulate climate change and the weakness of the actual legislation, *N* went on to say that as the *Act* is currently written the UK government couldn't deliver on the promise of addressing climate change. Exploring this problem *N* said: 'If you're playing in the legislative arena, this is what you do. There's a certain cognitive dissonance to it. This is the game we're in, the legislative game'. I asked *N* what they meant by cognitive dissonance and they said that they meant the ability to believe one thing and do another, in this instance to both know that government action was going to be inadequate yet still campaign to bring about legislative change. *N* said, 'you do what you know, because what else can you do?'. Taking up this point, NGO campaigners *F* and *T* said:

I think a lot of people were cynical [about the legislation]. As far as you can make a generalization, a lot of the people who are informed and got a good analysis and are committed, I feel a lot of us would critique something until it got to the point where you couldn't change it, then we'd just get behind it, and buy into it and make it have the biggest impact that it could have, because that's the best thing to do in that situation. There comes a point where you think, 'we're semi-locked into this, I think its bullshit...'

T: 'It becomes your job doesn't it.'

F: 'It becomes your job, but it's also because you care about the end point.'

N disputed this account, saying, 'It's not being cynical, it's just being politically realistic'. In contrast to how cognitive dissonance functions within the spaces of contemporary work (Sennett, 1998: 90–91) and the practices of cognitive labour (Berardi, 2009), cognitive dissonance here is a reluctant response to the insufficiency of governance vis-à-vis climate change where organisational priorities take precedent over securing effective climate change policy because there is an understanding that there is nothing else that can be done.

The articulation of climate change as catastrophic substantially transforms the meaning of the insufficiency of governance. Within neoliberal regimes we find that the lack of efficacy of neoliberal economics rarely poses a substantial threat to neoliberal regimes of governance. Not so vis-à-vis the ecogovernmental regime of containment. With the looming threat of ecological catastrophe, the presentation of good governance as a question of choosing between two choices that are differently bad, in this case pursuing a transformation of State governance when this seems unlikely or impossible or doing nothing about

climate change, cognitive dissonance becomes a means to sustain hope in the possibility of governance per se. The articulation of climate change as catastrophic produces a crisis in the very possibility of governance, where the question is no longer just how to respond to a given problem, or how to manage a specific population, but how the government of climate change possible at all?

Caring about both the end point and being ‘realistic’ suggests a cruel attachment to the idea of the State as a political actor. This attachment is not hopeful, yet nonetheless as a horizon it functionally organises the institutional priorities and the campaigns of ENGOs like FOE. Within governmental regimes orientated around the State, hope takes the form of policy (Harney and Moten, 2013: 79) – it is the means to secure progress by correcting, in this instance, the behaviour of recalcitrant populations. An investment in policy without hope is a form of cruel optimism (Berlant, 2011: 23), as the attachment to the State as a political actor works to foreclose the space of political experimentation that would be produced through other political horizons (horizons against or beyond the State). The focus on the State-as-actor not only functions to reproduce the State as the locus of governmental practices, but also produces it as a discursive figure, one through which the practices of governmental institutions such as ENGOs are organised. What makes this cruel is not only that the State as it exists seems incapable of realising the hopes for action on climate change that circulate within ENGOs, but that the orientation to the State tends to produce a tendency to repeat existing campaign practices and habits not so much with the hope that a different outcome will occur but because you do not know what else to do (Berlant, 2011: 24).

This attachment to the State appears held in place because campaigning to produce legislation is ‘your job’ and because the threat of catastrophic climate change produces nation-states as the only actors capable of addressing global warming as a problem on the scale and at the speed necessary. More than this though, the attachment to the State is produced within an organisational setting where other possible actors – specifically the business sector and the public – are seen as always-already incapable as they are understood to be both complicit in not-solving climate change and the cause of it as a problem.

Governing the conditions of excess life

I got the sense that there was a feeling of us and them. There is us, who know about things and are prepared to accept the consequences of catastrophe or whatever, and there are the people out there in the world, and we’ll never be able to sell this to them, because they’re more materially consumerist minded than we are, so they’ll never accept that this is necessary. – G, ENGO campaigner

Within environmental milieus the population is often articulated as a consuming body, one that is set against a rational self-governing one. While this is often set up in tension as a question of environmental activists versus consumers, the failure to address climate change has meant that this distinction between rapacious consumption and self-constraint has given way to a deepening vision of humanity *tout court* as unable to restrain itself, making for all life as ‘savage’ within a Malthusian register (Tellmann, 2013: 144).

Many campaigners in the ENGO argued that part of the problem with climate campaigns is that it was difficult to motivate the public to take action, even if that action was only to contact their local MP in favour of legislation. As F said, ‘it’s very hard to tell a positive story because you just say you’re going to have less stuff, you’re going to have to work harder for it. And that’s a bigger problem of the environment movement’. The problem with

people is their appetites. Their defining characteristic as a population vis-à-vis climate change is how much they consume. Not all people, but principally those in the Global North – comparatively wealthy consumers, although as noted above this comes with an attendant slippage where all humanity is articulated through the perceived actions of wealthy Northern consumers. This is not only because this is often how climate change is made publically understandable (i.e. via the carbon footprint of various everyday consumer goods) but because at a fundamental level reducing carbon emissions means reducing economic activity; in common sense terms translating as people having ‘less stuff’.

The implied end-goal for the *Act* involved a reduction in consumerism at a time when the UK government, like many others in the Global North, was and is actively reducing the social wage through privatisation programmes, punitive policies approaches to welfare provision, and budget and programme cuts, and wages are either stagnant or declining in real terms. Because a key element of the campaign to secure the *Act* involved mobilising public support for the idea of climate change legislation in order to put pressure on the UK government to take up the Bill, this created an anxious atmosphere amongst campaigners, where they understood that the austere aim of the campaign risked being rejected by the public as an intensification of the socio-economic contraction is already underway, one that intensified in the final stages of the campaign as the 2007–8 economic crisis took hold. And while the public mobilisation was largely successful with over 100,000 people signing pledges or letters to their local MPs in support of the campaign, the fear that people would not be supportive of the campaign because it would have a negative impact on their lifestyle persisted.

The public was thus a source of anxiety for the campaigners. The fear was that they would not be mobilised, that they would not take action because they wouldn’t want to do what was necessary, i.e. give up their ‘stuff’. This anxiety was tied to the vision of the future found in various climate change scenarios and plans for reducing carbon emissions, all of which amount to the imposition of a variation of green austerity on the population. Here the population is marked as already excessive to climate change and thus as a problem for governance. People become something to be managed in order to reduce carbon emissions precisely because they cannot be trusted to make the right decisions or with their own ‘fate’ (Stripple and Bulkeley, 2013: xv).

The problem to be managed vis-à-vis the population is twofold. First, it is a question of finding ways to reduce their aggregate consumption, what FOE (amongst many other environmental campaign groups) has called ‘overconsumption’ in the Global North.⁴ This can be translated into policies for reducing energy usage or as changes to food consumption, as seen in numerous FOE documents such as their ‘What to eat’ website⁵ and their previous ‘Fix the foodchain’ campaign that had the reduction of meat consumption in the UK as one of its aims.⁶

The second problem is finding ways to reduce the expectations of future consumption within the population. Managing the population is thus a temporal exercise of reducing consumption today to contain future climate change and at the same time containing the future expectations of the population. Yet, in line with the anxieties outlined above, it is also an exercise in managing perceptions. The public description of the future often differed markedly from the private views of campaigners insofar as one – the campaigners – was considered ‘realistic’, as opposed to public narrations of a low carbon future being the same only slightly different: ‘Daily life doesn’t need to be radically different. What will change is how energy efficient our lives are, and where we get our power from’ (FOE EWNI, 2008: 6). The idea that the future needed to be narrated as only slightly different to the present is not confined to FOE, but rather not an uncommon perspective within the environment

movement, Monbiot being an excellent case in point. In *Heat*, Monbiot (2007: xxii) sets out a plan for decarbonising the UK economy while maintaining the existing quality of consumerist life because, as he argues, there is no hope of implementing a climate change plan if it does not do this because people won't want to give up their current lifestyles. However, three pages later Monbiot (2007: xxv) says reducing carbon emissions is not possible without putting 'constraints' on everyone through government regulation.

Privately however, campaigners saw containing the worst effects of climate change as necessitating an introduction of a certain degree of scarcity through carbon limits. This introduction of scarcity neither takes place through price mechanisms, nor functions to regulate labour – it is not a means to make people work or allocate resources that have been produced as scarce. Rather it is a moral device – a means of responsabilising climate change. This responsabilisation is not only an ethical injunction (consume less!), but it is also a means of enforcement. The orientation of this normative injunction is not one of choice but of State-enforced austerity: of carbon budgeting.

The elusive norm of self-restraint

The mobilisation of the carbon budget by FOE (Carter and Childs, 2018: 6; FOE EWNI, 2008) posits human nature itself as something in need of strong regulation. Carbon budgets posit the desire to consume, and consumption itself, as a problem. While austere consumerism would be unlikely to mitigate dangerous climate change, the reluctance of people to 'give up their stuff' is understood to be a problem for generating support for climate change action and a reason to call on the State as an enforcement agent vis-à-vis the population's carbon emissions.

The budget, as a paradigmatic example of neoliberal technologies of reform (Collier, 2008: 376), works by transforming how choice functions (Rose, 1996: 55). As a 'nexus of choice' (Collier, 2008: 376) organised around financial norms (379) it functionally transforms life choices into economic choices, often in line with reduced public expenditure or, in the case of its take up by responsible households, stagnant or reduced household income. It has been primarily used over the neoliberal period as a technology of public administration both to reduce, where feasible, public expenditure on the social wage and social reproduction and to economise 'choice' more generally. Carbon budgets are functionally different as they seek not to economise choice but to carbonise it.

Through carbonisation, every activity is able to be rendered into emissions and thus made fungible, enabling their management as emissions activities (Lovbrand and Stripple, 2011). Carbon budgets function as disciplinary mechanisms that act on individuals as a means of responsabilisation and government institutions as a secondary auditing line, enforcing a series of policy and planning orientations and choices. While this is not incompatible with neoliberal rationalities, it does primarily orientate governance towards atmospheric accounting, rather than, or over, market accounting.

With carbon budgeting, the atmosphere takes the place of the market as the arbiter of choice; yet where neoliberal budgeting works to reinforce certain entrepreneurial behaviours, carbon is counted in order for it to be reduced. It is an austere form of budgeting, one that could be said not to promote rational choice but to ultimately mitigate against choosing at all. This means that, contra (neo)liberal governmentality, restraint and not freedom is the core normative principle. Freedom is not a means of government but a problem for it.

Yet the normative problem here is that people, like corporations, cannot be trusted to restrain themselves. What is called for then is for the State to enforce a reduction in consumption. As such, the vision of governance implicit here is one of a Statification of

governmentality: the call for and creation of a climate leviathan (Wainwright and Mann, 2013) that could enforce a series of carbon regulations in line with budgetary requirements that some environmentalists have compared to a wartime economy.

When allocation and not freedom becomes the normative basis of governmental rationality what we see is the introduction of the limit into everyday life. The role of environmental scarcity differs from that of scarcity within neoliberalism as it does not serve as a means of producing entrepreneurial subjects or as a means of punishing those that fall short of normative requirements (Tyler, 2013), but rather is the means by which desire is produced as excessive in-itself and thus morally questionable and in need of regulation.

Not the State we have but the State we need

Returning to *N* from the ENGO, they said that prior to the *Act*, ‘in legislative terms we [weren’t] anywhere near what we need to do. Legislators aren’t set up for dealing with this problem’. *N* went on to argue that ‘something can be legally weak but politically strong. Legally, the *Climate Change Act* is unimportant. It’s about the politics. The idea was to use it against the politicians, to get them to do something about climate change’. Returning to contemporary failures, it’s clear that in the UK (and more globally as with the *Paris Accord*) that the *Act* has been neither, given the profound shortcomings of both (Gabbatiss, 2019). The problem for introducing the kind of socio-economic regulation required to adequately address climate change is that (a) the State as it currently exists is unable to implement it and (b) politics as a field of contestation does not allow for what could be ‘unrealistic’ programmes of social transformation. Returning to the previous sections, the desire for a set of government agencies empowered to enforce the sorts of programmes envisioned by some climate change action plans indicates a pragmatic turn towards the State as a sovereign actor – a ‘climate leviathan’ (Wainwright and Mann, 2013). The logic of the *Act* is bound to government action, where the perceived ability of the State to act in a sovereign fashion on political economy of a given nation (in concert with other nation-states) forms the cornerstone of any effective plan for tackling climate change.

This is far from an uncommon vision of how change takes place vis-à-vis climate change. If anything, the State forms the basis for almost all climate change action plans. It is the only actor envisioned as capable of unilaterally acting on the entirety of the nation-state’s social and economic infrastructure and the only actor capable of creating international agreements and thus global action on climate change.

But not as it currently exists. The State as it currently exists is understood as not only ‘inadequate’ for the task of solving climate change, but it is also understood as corrupted or captured. Within contemporary UK environmentalism it is common place to understand government as captured by neoliberal ideology. Environmental activist and writer George Monbiot’s work in particular is influential here. Monbiot argues that government has been captured by corporate interests (e.g. Monbiot, 2007: xvi, xx, xxii), and that this capture has proceeded alongside a broader capture of social and economic policy by neoliberal ideology, effectively working to corrupt democracy. The link between reclaiming the State and climate change was made clear by Monbiot in a speech to a climate change political gathering in 2009. He argued that the State is necessary for tackling climate change as it is the only actor capable of managing the vast and complicated task of radically transforming the UK economy. He went on to say:

We are not arguing for the State in its current form to go on as it currently exists... We need to make sure that it becomes the democratic state that it is not. The challenge here is... to say we

must have a State that is in the pocket of the people and not in the pocket of big business.
(Debate audio)

This focus on State-making – Statification – is central to the dispositif of containment. Without a strong State there is little hope of realising plans to contain the worst effects of climate change or of containing the excesses of a consumptive population. This notion of sovereignty makes sense only through the notion of the State as a unifying agent of governmental power (Foucault, 2004: 43–44), one where the necessity to which it responds – catastrophic climate change – calls for the creation of a climate leviathan that could be said to supersede the requirements of (neo)liberal democracy. This is not the State as it currently exists. The horizon is one of a technocratic managerial State, where not only are markets constrained but where policy is framed by sound science. In a similar fashion to the role of the market in neoliberal governmentality, the State returns here as the only potentially capable rational actor. Thus, the sovereign returns as a normative horizon for contemporary political practice, as the only actor capable of reinscribing catastrophe within the realm of the manageable.

Paradoxically, how the State manifests within the campaign of FOE is as an arbiter of what we could call the least bad outcome, not the capable manager of climate change. Indeed, recent government action has focused on furthering the privatisation and marketisation of the environment and further developing carbon polluting infrastructure, contrary to the *Climate Change Act*.

The campaign to secure the *Act* was one to stop something being as bad as it could be – to achieve the least bad outcome possible. It was a campaign undertaken with the understanding amongst campaigners that when it comes to the outcome of climate change campaigns, there are ‘degrees of fuckedness’ (ENGO interviewee G) in the outcome. It is not a matter of win or lose, solutions and failures. This is what is implied by campaigner’s cognitive dissonance: while legislation is not good enough, the *Act* can still be used politically to variously create the space to make real change, to contain how bad things could get, as a bad law is still better than no law.

This logic is born of a moment of impasse: it is a creative attempt to work within a set of governmental frameworks that don’t really do what is required to solve climate change and a series of campaigning practices that lack the efficacy they once possibly had. Where neoliberalism mobilised ‘infernal alternatives’ (Stengers and Pignarre, 2011: 55–56) – two bad options – in order to constrain or script choice and depoliticise social life, catastrophe makes such choices a means of navigating the time until catastrophe properly arrives. In choosing the least bad options, we ward off the worst outcomes of climate change while still waiting for climate change to fully realise itself as a catastrophe in our lives.

Where FOE has to make the best of existing governmental practices and institutions, government actors are themselves also constrained by these boundaries, including the requirements of maintaining economic stability and growth. Government negotiators and MPs thus find themselves with little room for working beyond existing realistic political options: options that amount to regulating carbon emissions and adapting to climate change as long as it is compatible with contemporary neoliberal economic policy. That said, there are signs of a renewed neo-Keynesianism emerging, centred on discussions of a ‘Green New Deal’ and shifting policy orientations towards ‘wellbeing’ as opposed to ‘growth’. How broadly this tendency is taken up remains to be seen. But should it be taken up more broadly it would enable more room to move politically, possibly increasing the uptake of containment as a mode of ecogovernance in the UK.

The reintroduction of the limit into political rationality introduces a cruel paradox into governmentality. The confines of government as it currently exists block the realisation of good climate governance, and produce a conflict between what is politically possible and what is scientifically necessary. The import of the catastrophic limit acts normatively to organise ENGO campaigns, suggesting that political rationality will, with work, shift towards doing what is necessary. However, the failure of governments to act rationally vis-à-vis climate change is not due to the ontology of catastrophes – they are not unmanageable by nature. Rather catastrophes such as climate change are unmanageable because they require governmental regimes to unmake themselves as socio-economic regimes, that is *pace* Klein (2014), it requires they ‘change everything’. The paradox of the catastrophic limit is that governmental workers are compelled by necessity to pursue the problem towards its solution working with the governmental practices and process they have access to and that currently constitute the State. These practices and processes limit what can be done to what is considered politically realistic however, thus thwarting any attempt to realise functional solutions to climate change.

Mapping containment

Whereas many early climate change campaigns sought to limit future climate change to 2°C or less, the sense that it is still politically possible to achieve such a goal has all but dissipated. This sense of despair emerged as the dominant affective regime after the failed 2009 international climate change negotiations. It was after this that many began to think dangerous climate change could no longer be prevented (Hamilton, 2010). What we find emerging in response is a dystopian mode of government that looks to contain the worst consequences of climate change and realise a technocratic vision of the least bad outcome. The focus here is on instituting restraint amongst the population – to posit consumption as always-excessive and freedom as a problem to be managed rather than a means of governing.

The emerging dispositif of containment is put together in an ad-hoc fashion from salvaged parts – from technologies of power, elements of policy and legislation, devices and knowledges pulled together from varied scientific and heterodox economic research programmes, from elements of neoliberal governmentality and Malthusian liberalism, from campaign and activist praxes. Salvaged, as the grounds of containment are the global technoscientific regimes that make climate change knowable (Edwards, 2010), the existing international framework for negotiating global environmental agreements and the legacies of environmental movements and ENGOs as political actors. The convergence of all three works to produce a state of impasse, where previous strategies and tactics fail to work effectively, yet at the same time the various actors involved cannot let go of previous modes and models of action. This moment is one of affective exhaustion and despair, where hope is cruelly attached to the State, yet at the same time such an attachment comes with little faith that the State can either be reformed or made to act in any adequate fashion. The despair that marks this attachment comes with a loss of faith in humanity as a political actor – humanity is no historical agent, but rather rendered into a transhistorical disappointment: the destroyer of worlds (Monbiot, 2014).

Caught between scientific necessity and political realism, the politics of containment seeks to secure the least bad outcome. Thus caught, the logic of containment compels an environmentalism that seeks not to conserve nature but to protect a form of human life, one conflated with humanity-in-general, from the excesses of an unmanageable nature. In the process, ENGOs such as FOE work within the field of governmentality to change how

environmental governance functions. Under threat of extinction – the end point of catastrophic climate change – ecogovernmentality is produced as a project of almost-managing catastrophe, where excessive populations are framed as the key problem to be managed and the State as the only actor potentially capable of managing catastrophe, though it is not (or perhaps never) adequate to the task, and self-restraint rather than freedom forms the normative horizon of biopolitical interventions.

The shift from bio- to geopolitics – or rather the decentring of biopower and the loss of neoliberal governance's hegemony – marks the rise of the atmosphere as an increasingly important context of government, one where the market rationalities of neoliberalism are contested and called into question as norms and priorities. Key to this shift is the transformation of the problem of population, where humanity, as articulated through consumers in the Global North, is marked as excessive to government, and calling for a deepening of managerial (as opposed to market) practices and logics that aim not to resolve what is now an unsolvable problem, but to minimise how bad climate change will be.

While this study focuses on the UK, and the work of one ENGO, there are marked similarities to other tendencies and situations within the Global North, not least across the EU and USA where environmental movements, renewed Keynesian programmes that focus on policies such as the Green New Deal (in the USA and EU), public opinion that favours strong action on climate change and the ever-increasing chorus of journalists, writers and scientists declaring a 'climate emergency'. Concurrent with the emergence of the logic of containment vis-à-vis climate change, there has been a renewed violence around the borders of the Global North, one contemporaneous with the rise of the far and 'alt' right. As such, we need to heed the resonances between containing the excesses of a consuming population and the notion of containing and securitising 'dangerous' or 'surplus' populations, noting that while containment is distinct from Malthusian liberalism, it is not distant. This is all the more important given the inequities of both power and responsibility for climate change at a global scale. Containment, seen in this harsh light, can likely only mean a deepening of colonial logics, seeking to contain the problem of climate change beyond the borders of those countries most responsible for it.

Ultimately the contradictions and tensions in containment must be tackled by both environmental movements and governmental actors as it is a logic that works in the impasse but does not resolve it. Hope lies in going beyond the space of what 'realistically' can be done – in pushing further into the problem of catastrophe towards practices of decarbonisation and degrowth. Both are as yet marginal logics, but as the preceding account of containment has shown, in moments of crisis and impasse, marginal practices and logics can rapidly move to the centre of governmental rationalities, moving from unimaginable to something that has the status of what must be done.

Highlights

Key arguments and findings

- Climate change as a governmental problem is becoming an insolvable problem within current socio-political and economic frameworks.
- Existing neoliberal approaches are increasingly understood to risk provoking an existential crisis of capitalism and the global geopolitical order.
- In response to this state of governmental impasse, novel political rationalities are emerging from liminal governmental spaces including NGOs.

- One response from ENGOs is to pursue a rationality of the least worst outcome operationalised through practices of containment.
- This rationality decentres biopolitical governmental practices in favour of geopower, focusing on managing the biosphere as a single system.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. This paper uses the generally recognised marker of 2°C as the line between climate change and dangerous climate change. It does so as a policy and campaigning convention, not to indicate that contemporary scientific accounts or IPCC policies are wrong to lower the threshold of dangerous climate change to 1°C, nor to invisibilise the previous and continuing effects of climate change, including (but not limited to) the loss of life, destruction of innumerable habitats, the loss of territories and homes, amongst other effects. Clearly climate change is and has already been part of colonialism and capitalism's legacy of environmental destruction.
2. It could be argued that another aspect to the eclipse of limit-talk was the renewal of global economic growth that took place after the incorporation of socialist and post-socialist economies in the 1980s and 1990s, the new enclosures driven by IMF and World Bank structural adjustment programmes, as well as a number of so-called post-Fordist techno-economic developments such as the shipping container, all of which reconstituted the 'ecological regime' of global capitalism. (Arrighi, 2007; Harvey, 2005; Midnight Notes, 1990; Moore, 2007).
3. On the impact of the collapse of the USSR, also see Schiermeier (2019).
4. That is, see the section 'What is overconsumption': <https://friendsoftheearth.uk/natural-resources>.
5. <https://friendsoftheearth.uk/food>.
6. This point was often fudged in campaign materials, for same reasons as we find with the *Climate Change Act*. From the FOE local group 'Summer of action guide 2009':

Producing meat and dairy in a more planet-friendly way means producing less and therefore eating less of it in our diets. In the UK we eat three and a half times as much meat as is recommended by the World Health Organisation. (https://friendsoftheearth.uk/sites/default/files/downloads/food_chain_action_guide.pdf)

References

- Adams V, Murphy M and Clarke AE (2009) Anticipation: Technoscience, life, affect, temporality. *Subjectivity* 28: 246–265.
- Anderson K (2012) Climate change going beyond dangerous – Brutal numbers and tenuous hope. *Development Dialogue* (What Next Volume III – Climate, Development and Equity): 16–40.
- Anderson K (2013) Avoiding dangerous climate change demands de-growth strategies from wealthier nations. *Kevin Anderson*, 12 December. Available at: <http://kevinanderson.info/blog/avoiding-dangerous-climate-change-demands-de-growth-strategies-from-wealthier-nations/> (accessed 27 February 2019).
- Aradau C and Van Munster R (2012) *Politics of Catastrophe: Genealogies of the Unknown*. Oxford: Routledge.

- Arrighi G (2007) *Adam Smith in Beijing: Lineages of the Twenty-First Century*. London: Verso.
- Berardi F (2009) *The Soul at Work*. Los Angeles, CA: Semiotext(e).
- Berlant L (2011) *Cruel Optimism*. Durham, NC: Duke University Press.
- Blok A, Nakazora M and Winthereik BR (2016) Infrastructuring environments. *Science as Culture* 25(1): 1–22.
- Bonneuil C and Fressoz J-B (2018) *The Shock of the Anthropocene: The Earth, History and Us*. London: Verso.
- Braun B (2013) A new urban dispositif? Governing life in an age of climate change. *Environment and Planning D: Society and Space* 32: 49–64.
- Carter N and Childs M (2018) Friends of the Earth as a policy entrepreneur: ‘The big ask’ campaign for a UK Climate Change Act. *Environmental Politics* 27(6): 994–1013.
- Chapman B (2017) BP and shell planning for catastrophic 5°C global warming despite publicly backing Paris climate agreement. *The Independent*, 27 October.
- Clark D (2012) How well is the UK doing in cutting its emissions? *The Guardian*, 28 March.
- Clark N (2014) Geo-politics and the disaster of the Anthropocene. *The Sociological Review* 62(S1): 19–37.
- Collier SJ (2008) Budgets and biopolitics. In: Ong A and Collier SJ (eds) *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*. Oxford: Blackwell Publishing Ltd. pp.373–389.
- Cowen D (2014) *The Deadly Life of Logistics: Mapping Violence in Global Trade*. Minneapolis: University of Minnesota Press.
- Dean M (2010) *Governmentality: Power and Rule in Modern Society*. 2nd ed. London: Sage.
- Dean M (2015) The Malthus effect: Population and the liberal government of life. *Economy and Society* 44(1): 18–39.
- Dryzek JS (2005) *The Politics of the Earth: Environmental Discourses*. 2nd ed. Oxford: Oxford University Press.
- Dryzek JS (2007) Paradigms and discourses. In: Bodansky D, Brunnee J and Hey E (eds) *The Oxford Handbook of International Environmental Law*. Oxford: Oxford University Press. pp.45–62.
- Edwards PN (2010) *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Cambridge: The MIT Press.
- Fisher WF (1997) Doing good? The politics and antipolitics of NGO practices. *Annual Review of Anthropology* 26(1): 439–464.
- FOE EWNI (2008) *Energy and Climate Change*. Edited by Friends of the Earth EWNI. London: FOE EWNI.
- Foucault M (2003) *The Order of Things: Archeology of the Human Sciences*. London: Routledge.
- Foucault M (2004) *Society Must Be Defended*. London: Penguin Books.
- Gabbatiss J (2019) ‘Shocking’ failure to cut emissions from biggest-polluting sector in UK as others improve. *The Independent*.
- Hamblin JD (2013) *Arming Mother Nature: The Birth of Catastrophic Environmentalism*. Oxford: Oxford University Press.
- Hamilton C (2010) *Requiem for a Species: Why We Resist the Truth About Climate Change*. Sydney: Allen & Unwin.
- Harney S and Moten F (2013) *The Undercommons: Fugitive Planning and Black Study*. New York: Minor Compositions.
- Harvey D (2005) *The New Imperialism*. Oxford: Oxford University Press.
- Harvey F (2014) UK on track to miss carbon targets, climate change advisers warn. *The Guardian*. 5 February. Available at: <http://www.theguardian.com/environment/2014/jul/15/uk-miss-carbon-targets-climate-change-advisers> (accessed 27 February 2019).
- Hay P (2002) *Main Currents in Western Environmental Thought*. Sydney: UNSW Press.
- Jasanoff S (1997) NGOs and the environment: From knowledge to action. *Third World Quarterly* 18(3): 579–594.

- Klein N (2014). *This Changes Everything: Capitalism vs the Climate*. New York: Simon & Schuster.
- Knafo S, Dutta SJ, Lane R, et al. (2018) The managerial lineages of neoliberalism. *New Political Economy*. Epub ahead of print. DOI: 10.1080/13563467.2018.1431621.
- Lohmann L (2015) *Neoliberalism's Climate*. Dorset: The Corner House.
- Lovbrand E and Stripple J (2011) Making climate change governable: Accounting for carbon as sinks, credits and personal budgets. *Critical Policy Studies* 5(2): 187–200.
- Luke T (1999) Eco-managerialism: Environmental studies as a power/knowledge formation. In: Fischer F and Hajer M (eds) *Living with Nature*. Oxford: Oxford University Press. pp.103–120.
- McKibben B (2010) *Eaarth: Making a Life on a Tough New Planet*. New York: Times Books.
- MacKinnon D and Derickson KD (2013) From resilience to resourcefulness: A critique of resilience policy and activism. *Progress in Human Geography* 37(2): 253–270.
- Malette S (2009) Foucault for the next century: Eco-governmentality. In: Binkley S and Capetillo J (eds) *A Foucault for the 21st Century: Governmentality, Biopolitics and Discipline in the New Millennium*. Cambridge: Cambridge Scholars Publishing. pp.221–239.
- Mehta L, Huff A and Allouche J (2019) The new politics and geographies of scarcity. *Geoforum* 101: 222–230.
- Methmann C (2013) The sky is the limit: Global warming as global governmentality. *European Journal of International Relations* 19(1): 69–91.
- Midnight Notes (1990) *New Enclosures*. New York: Autonomedia.
- Mirowski P (2013) *Never Let a Serious Crisis Go to Waste: How Neoliberalism Survived the Financial Meltdown*. London: Verso.
- Mitchell T (1991) The limits of the state: Beyond statist approaches and their critics. *The American Political Science Review* 85(1): 77–96.
- Monbiot G (2007) *Heat: How We Can Stop the Planet Burning*. London: Penguin.
- Monbiot G (2014) Destroyer of worlds. *The Guardian*, 24 March. Available at: <http://www.monbiot.com/2014/03/24/destroyer-of-worlds/> (accessed 27 February 2019).
- Moore J (2007) *Ecology and the rise of capitalism*. PhD Thesis, University of California, USA.
- Murphy H (2018) Governance via persuasion: Environmental NGOs and the social licence to operate. *Environmental Politics* 27(2): 320–340.
- Neocleous M (2013) Resisting resilience. *Radical Philosophy* 178(March/April). pp.2–7.
- Povinelli E (2017) The three figures of geontology. In: Grusin R (ed.) *Anthropocene Feminisms*. Minneapolis: University of Minnesota Press. pp.49–64.
- Roitman J (2014) *Anti-Crisis*. London: Duke University Press.
- Rose N (1996) Governing “advanced” liberal democracies. In: Barry A, Osborne T and Rose N (eds) *Foucault and Political Reason: Liberalism, Neo-Liberalism and the Rationalities of Government*. Chicago, IL: University of Chicago Press. pp.37–64.
- Schiermeier Q (2019) ‘Soviet Union’s collapse led to massive drop in carbon emissions’ news, *Nature*, 1 July 2019. Available at: www.nature.com/articles/d41586-019-02024-6 (accessed 10 January 2020).
- Sennett R (1998) *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*. New York: Norton.
- Srinivas N (2009) Against NGOs? A critical perspective on nongovernmental action. *Nonprofit and Voluntary Sector Quarterly* 38(4): 614–626.
- Steffen W, Grinevald J, Crutzen P, et al. (2011) The anthropocene: Conceptual and historical perspectives. *Philosophical Transactions of the Royal Society A* 369(1938): 842–867.
- Stengers I and Pignarre P (2011) *Capitalist Sorcery: Breaking the Spell*. New York: Palgrave Macmillan.
- Stripple J and Bulkeley H (eds) (2013) *Governing the Climate: New Approaches to Rationality, Power and Politics*. Cambridge: Cambridge University Press.
- Tellmann U (2013) Catastrophic populations and the fear of the future: Malthus and the genealogy of liberal economy. *Theory, Culture & Society* 30(2): 135–155.

- Timperley J (2017) CCC: A plan to fill the UK's climate policy gap is 'urgently' needed. *Carbon Brief*. Available at: <https://www.carbonbrief.org/ccc-plan-to-fill-uk-climate-policy-gap-urgently-needed> (accessed 14 February) (accessed 14 February 2019).
- Tyler I (2013) *Revolting Subjects: Social Abjection and Resistance in Neoliberal Britain*. London: Zed Books.
- Wainwright J and Mann G (2013) Climate leviathan. *Antipode* 45(1): 1–22.