

The embodied politics of climate change

Wilson, Joanna; Chu, Eric

DOI:

[10.1080/09644016.2019.1629170](https://doi.org/10.1080/09644016.2019.1629170)

License:

None: All rights reserved

Document Version

Peer reviewed version

Citation for published version (Harvard):

Wilson, J & Chu, E 2019, 'The embodied politics of climate change: analysing the gendered division of environmental labour in the UK', *Environmental Politics*. <https://doi.org/10.1080/09644016.2019.1629170>

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

Checked for eligibility: 18/06/2019

This is an Accepted Manuscript of an article published by Taylor & Francis in *Environmental Politics* on 18/06/2019, available online: <http://www.tandfonline.com/10.1080/09644016.2019.1629170>

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

The Embodied Politics of Climate Change: Analysing the Gendered Division of Environmental Labour in the UK

Joanna Wilson^{*, a} and Eric Chu^b

^aPolitics Department, University of Manchester, United Kingdom

^bSchool of Geography, Earth and Environmental Sciences, University of Birmingham, United Kingdom

* Corresponding author. Politics Department, University of Manchester, Oxford Road, Manchester, M13 9PL, United Kingdom. Email: Joanna.wilson@manchester.ac.uk

The Embodied Politics of Climate Change: Analysing the Gendered Division of Environmental Labour in the UK

Abstract: The intersection between gender and climate change action has received little scholarly attention. To facilitate a critical orientation towards the informal economies of social reproduction, here is illustrated the ways that the UK's climate politics are rooted in masculinist discourses of a green economy. Adopting an intersectional approach, here is argued that such a green economy perspective diverts attention from labouring bodies in climate politics, invisibilising the 'who' in the experience of climate solutions. Through critically engaging divisions of labour in climate policy, evidenced through a feminist critical discourse analysis, it is shown how a surface-level inclusion of gender perpetuates the labouring bodies associated with specific labour markets. In response, it is suggested that an intersectional approach to climate policy can account for these omissions and highlights the ways in which a more just, intersectional climate politics might be formulated.

Keywords: climate change politics; gender; feminism; intersectionality; environmental justice

Introduction

In the face of global climate change, it can be easy to assume that issues of gender equality – particularly gender equality in the 'over-developed' Global North are of less importance (MacGregor, 2010). The apocalyptic nature of climate change discourse (see Swyngedouw, 2010) means that 'when we are all in the same boat careening towards the apocalypse, there is no time, or need for politics' (MacGregor, 2014, p. 620), particularly identity and gender politics. However, this misconception is based on the assumption that the two issues – gender and climate change – can, or should, be separated (Buckingham, 2004). It assumes that this decoupling would not overlook the deeply gendered impacts of both climate change itself and of political approaches to solving the climate challenge. To negate gendered issues

in decision-making would in fact lead to a climate politics that works to exacerbate existing inequalities (Demetriades and Esplen, 2008; Cuomo, 2011; Gaard, 2015). For example, many women, particularly women with responsibilities for children or other dependents, face long (in)formal working days followed by a greater burden of household labour (Buckingham and Kulcur, 2009). Years of feminist scholarship tells us that the household is a deeply gendered space (see for example Organo, Head and Waitt, 2012; Sjoberg, 2012; Peterson, 2016), and so increasingly stringent ‘reduce, recycle and reuse’ regulations result in a ‘double-day’ for many women in the name of climate change mitigation.

The notion that climate politics are rooted in masculinist discourses is not new. Indeed, there are over two decades of (eco)feminist literature upon which to draw (see for example Alaimo, 2009; Nagel, 2012; Kronsell, Rosqvist and Hiselius, 2016). Such literature draws upon an even longer history of scholarship asserting the ways in which mainstream economics are deeply entrenched with highly gendered, racialized, ableist, sexist and ageist attitudes (see Waring, 1988; Nelson, 2012). Feminist economists such as Waring (1988) have argued that traditional economic models are biased by an exclusive attention to the masculinised characteristics of autonomy and logic, thus diminishing traditionally feminised priorities of family economics.

Discursively, climate change is predominantly constructed as an ecologically modern ‘problem that requires technical, diplomatic and military solutions, entirely consistent with hegemonic (hyper)masculinity’ (MacGregor, 2010, p. 231). That is, climate change is framed as a technocratic issue while protecting economic growth, creating green jobs in the process (see for example UNDP, 2015). There is a growing literature addressing hegemonic masculinity and climate change (see Twine, 1997; Alaimo, 2009; Pease, 2016) including studies which suggest that many men with backgrounds in engineering and the sciences remain sceptical about global warming (Anshelm and Hultman, 2014), and that there is a

close connection between climate change denial among some professional men and a particular form of masculinity that is grounded in engineering rationality, natural science and industrial modernisation (ibid).

Thus, framing climate change within a discourse of the ‘green economy’, which casts climate change as a problem of science urgently requiring technological advancement and market fixes, means that solutions lie firmly in the domain of men and masculinist priorities (Spaargaren and Mol, 1992; Mol, 1996). Importance is given to electric cars that must have the perfect engine noise, industries where jobs are traditionally taken up by men, meaning that women remain chronically under-represented in the labour force (WISE, 2017). This is of particular significance in an age of austerity where we see cuts to jobs in caring professions, one of the few professions predominantly undertaken by women (Mcfarland, 2014). A gender-blind or even masculinised climate politics thus ultimately works to perpetuate the status quo of ‘women’s work’ and ‘men’s work’.¹

In response, a climate politics firmly rooted in issues of justice could then have the potential to challenge such gendered divisions of labour. That is, a climate politics which places the *body* front and centre can have the potential to uncover and challenge inequitable power relations in the division of environmental labour required to reach a climate-responsive economy (IPCC, 2018). In this paper, therefore, we argue for a critical engagement with the UK’s climate change policy through an environmental labour lens. The UK presents an interesting case study as a state under austerity measures for almost a decade resulting in cuts to public spending, and a state which is showing tendencies towards greater economic protectionism as seen in the Brexit debates. Furthermore, while intersectional

¹ We recognise that such claims can be understood as generalisations, but our claims draw on a rich and diverse range of feminist scholarship which recognises the hegemony of masculinity in (global) politics, including climate politics (see Shepherd, 2008, 2010; Enloe, 2014; Pease, 2016 and others).

studies of climate change policies have been carried out in Scandinavia (see Kaijser and Kronsell, 2014), no such study exists within the UK.

In this paper, we argue that there is a need for feminist research that shifts the narrative towards intersectional power imbalances in the making of the environmental citizen, calling into question the ‘common sense’ of a green economy. As such, we seek to reorient theories of climate change justice around issues of gender and gendered labour by arguing that: climate change discourse is rooted in masculinised priorities of technology advances and economic growth, and consideration given to social issues, including gender concerns, does not run deep enough to create transformational change; the segmentation of discourses on injustice is therefore inadequate, serving to obfuscate non-homogenous and intersectional injustices and; an intersectional environmental labour lens can help to interrogate such differential power relations through uncovering the specific labouring bodies produced, and reproduced, by a ‘green economy’ approach to addressing climate change.

We will proceed as follows. Firstly, we set out our theoretical framework of intersectionality, arguing that ‘in seeking to embody a properly reflective, and reflexive, sense of theoretical critique, a piece of scholarship is flawed without sensitivity to all axes of exclusion’ (Griffin, 2007, p. 728). We close this section with an outline of our methodology. Secondly, we apply this framework to our empirical data showing how the UK’s climate politics overwhelmingly represents a masculinised discourse that prioritises technological advance and economic growth while paying too little attention to social considerations of justice. Thirdly, we demonstrate how such a climate politics masks the ‘who’ in the experience of climate solutions. In this we draw upon three dimensions of environmental labour: the good jobs of climate change (i.e. high-wage earning positions in STEM industries); the dirty jobs of climate change (i.e. waste disposal and recycling); and the household jobs of climate change (i.e. reproductive labour). In doing so, we derive

conclusions on what the (in)visibility of ‘who’ entails. We then suggest that an intersectional approach to climate policy can account for these omissions. We conclude by highlighting some of the ways in which a more just, intersectional climate politics might be formulated.

Bringing the Body into Climate Politics

Most writings on intersectionality cite Kimberlé Crenshaw as amongst the first to develop the theory, however Yuval-Davis accredits Sojourner Truth as one early example of someone who, at an abolitionist convention in Ohio, 1851, argued that although:

‘she worked hard and carried heavy loads, etc., this did not make her less of a woman and a mother than women of a privileged background who were constructed as weak and in need of constant help and protection as a result of what society considered to be ‘feminine’ ways’ (Yuval-Davis, 2011, p. 13).

Indeed, whilst historically speaking intersectionality is firmly rooted in critical race/ethnicity studies and is imbued with anti-racist and anti-colonial sentiment, its critical potential has also been developed within various strands of feminist theorising, including ecofeminism, animal studies, and post-structural feminism (Kaijser and Kronsell, 2014). As an analytical tool, intersectionality sheds light on ‘the interaction between gender, race and other categories of difference in individual lives, social practices, institutional arrangements, and cultural ideologies and the outcomes of these interactions in terms of power’ (Davis, 2008, p. 68). Thus, intersectionality sheds light on the *specific bodies* encompassed in a green economy approach to dealing with climate change by examining how gender, race and other categories of difference in individual lives are implicated in relation to power. As a result, Crenshaw (1993) claims that the problem with identity politics is not that it fails to transcend difference, but rather it frequently conflates/ignores intra-group difference. That is, identity is not homogenous and cannot be captured wholly by looking at the race or gender dimensions of those experiences separately. The specificity of any individual body is not

exhausted by singular identity formations (black, female, etc.), but a point at which multiple (sometimes contradictory) identities converge.

An intersectional lens can thus offer much to the study of the embodiment of environmental labour. Through asking questions such as ‘which identities are promoted and serve as grounds for political action? And which identities become invisible in such projects?’ (Kaijser and Kronsell, 2014, p. 422), we can uncover the specificity of the ‘who’ in environmental labour. Indeed, asking such questions can reveal much about the ‘who’ in the politics of climate change. For instance, Tuana (2008) noted in an intersectional study on the effects of Hurricane Katrina in New Orleans that marginalised people (black, Hispanic, poor, LGBT, etc.) were less likely to be able to evacuate or to afford to live elsewhere and, that of the many marginalised people who did stay, women were often the victims of sexual assault. Similarly, Arora Jonsson (2011) argues that the popular framing of women as vulnerable to the effects of climate change speaks primarily to women of the Global South, not all women. Therefore, it is important that any critical feminist analysis of climate change politics consider the framing of women and gender as always cut through by other discursive context and ask *which women?*²

A climate change politics that does not consider multiple intersections of identity can have profound effects for societal inequality. Indeed, a feminist analysis which privileges the needs of one group (predominantly white middle-class women) is as complicit in patriarchal power structures as masculinised climate change discourses. Instead, “using intersectionality in the study of climate issues makes it possible to reach a more complete and accurate

² Of course, we recognise that there are inherent complications when using ‘gender’ as a focus of study and recognise that there are indeed factors that make women more vulnerable to the effects of climate change. Our objective in this paper is not to unpack ‘gender’ in the context of climate change but rather to highlight the policy rhetoric and perceived or experienced injustices attributed to it. Having said that, we recognise that there is far too little research which focuses on LGBT or queer identities and climate change.

understanding of the social and political conditions for climate governance” (Kaijser and Kronsell, 2014, p. 428). In other words, a framework of intersectionality that integrates the embodied politics of difference can begin to address the multiple faces of patriarchy along the lines of race, class, age, gender identity and ability that are broader than the traditional, essentialist framings of male/female power imbalance.

Methodological Approach

The Climate Change Act of 2008, which forms the basis for the UK’s approach to responding to global climate change, sets a reduction target of at least 80% of greenhouse gas emissions compared to 1990 levels by 2050 along with a framework for how to get there. Though the Act was based upon the Kyoto Protocol (UNFCCC, 1997), it is technically consistent with the Paris Agreement (UNFCCC, 2015) though will likely need supplementing by 2020, for example by including a target for achieving ‘net zero’ emissions (Fankhauser, Awerchenkova and Finnegan, 2018). However, the Act, being a technically dense document, does not refer to gender, race, ability nor sexuality. As set out above, any action taken to meet such ambitious actions must consider the ‘who’, or the specific labouring bodies, that will carry out such action. In this analysis, we have included related documents that encompass five main areas of UK climate policy. That is, alongside the Climate Change Act, we further analyse areas of: (1) adaptation, (2) mitigation, (3) energy (4) sustainable development, and (5) international responses. We consider a variety of government-produced reports, policies, and white papers relating to these five areas (see Appendix 1 for full list), sourced through Government websites, which we feel suitably characterise the UK’s approach to climate politics.

This analysis is guided by a feminist informed critical discourse analysis (Lazar, 2007), using an inductive coding process that investigates power relations and the

construction of gender through the use of language. We first conducted a simple word search on each of these documents searching for the words: ‘women’, ‘female’, ‘gender’, ‘ability’, ‘age’, ‘race’, ‘socio-economic’, ‘equality’ and ‘equity’. By searching the documents for specific words, we were able to get an initial sense as to how much specific policies considered issues of intersectional identity politics. Second, we read each of the documents in full, inductively coding themes that arose, paying attention to overarching discourses.

Finally, to understand how ‘gender’ is used throughout climate policy, we took a closer look at the mentions of the search terms included above. Specifically, we considered the construction of women and investigated the inclusion of *single* stories of gender (see Crenshaw, 1993) or essentialist language around women. We also investigated the references for any recognition of patriarchal power structures that might undermine positive references to gender. For example, we considered if references recognised barriers to access for women, particularly women on the intersection of other oppressed identities, as well as considering if the documents showed any sign of challenging traditional gender roles.

Discourses of Climate Change Politics

Previous research, as we have shown, tells us that climate change policy is dominated by masculinised discourses of finance, technology and industry that side-lines issues of gender equality and justice (Nelson, 2008; Macgregor, 2014; Bee, 2016). Our analysis, similarly, shows that while the UK’s climate change policy does include some feminist priorities (such as the inclusion of women in STEM roles), this is somewhat undermined by the overarching discourse which positions climate change as a technocratic issue requiring market fixes and technological innovation while simultaneously framing women within discourses of vulnerability. Thus, as our discussion below demonstrates, our analysis is entirely in-keeping with an ecological modernisation approach as promoted by a green economy coupled with

gender mainstreaming. For example, a simple word search shows that while the term ‘gender’ is absent from all policy documents, the term ‘women’ appears a total of eleven times. This is in direct contrast to references to masculinised labour markets of science, industry, business and development (see Figure 1). In fact, technological advance features so heavily that at times it is even framed as a technology race (see for example DECC, 2011, p. 1; DEFRA, 2013, p. 1). Former Prime Minister David Cameron has commented on green investment as saying ‘make no mistake, we are in a global race and the countries that succeed in that race [...] are those that are the most energy efficient’ (Cameron, 2013 cited in Vaughan, 2013). A further word count shows the term ‘equity’ appearing 32 times throughout the documents analysed. However, on closer inspection, the word is used on 31 occasions in a financial equity sense, positioning a strong economy as far more important than a just and equitable society (see Figure 2).

[Figure 1 and Figure 2 around here]

Much of the content of the documents analysed works to minimise the role of government while maximising free market economies and promoting individual behaviour change, in keeping with neoliberal logics. For example, schemes such as carbon calculators (as referenced in DECC, 2011, 2013; DTI, 2007) act as a means of allowing individuals to identify areas in their own lives where they can reduce their personal carbon emissions (DECC, 2011). Such areas include domestic transport behaviour and limiting the volume of waste and recycling. Furthermore, the 2018 version of the National Planning Policy Framework makes clear the role of the market in the creation of climate policy, stating that when preparing and reviewing plans, councils and local authorities should ‘take into account relevant market signals’ (DCLG, 2018, p. 11) as well as ensuring that plans allow ‘choice and

competition in the market for land' (DCLG, 2018, p. 20). Similarly, the UK Government's White Paper on Energy (2007) highlights the governments energy policy goals, one of which highlights the need 'to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve our productivity (DTI, 2007, p. 10-11).

The importance given to the market in the documents analysed is, perhaps, most clear in the 48 references seen throughout the documents to the issue of recycling. On the whole, references to recycling are primarily concerned with 'material efficiency' (DECC, 2011).

For example:

'The further up the hierarchy waste is treated, the greater the emissions savings: preparing for re-use is often a less intensive way of replacing primary production of products than recycling. An example of this is textiles, where preparing 1 tonne for re-use could save 12 tonnes more CO₂e than recycling' (DECC, 2011, p. 94).

When analysing the specific mentions of women, it is clear that most appear in international responses and, as such, there is the implication that gender issues are only applicable to the Global South. One such example found in the UK's 'Sixth National Communication and First Biennial Report under the UNFCCC' (2003) is a government-funded project in Senegal that provided an anti-salt dyke to reclaim land used for rice fields, typically worked on by women as part of the adaptation fund:

"The UK has contributed £10 million to the Adaptation Fund. A £5.6 million project in Senegal has supported the construction of a 3,300-meter anti-salt dyke to reclaim lands in an area affected by salinity which was forcing women to abandon rice fields where rice cultivation is a traditional activity, typically undertaken by women. The project has also allowed a 730-meter protection dyke to be built which will protect houses that are being threatened by coastal erosion, a problem which affects the town's historical heritage as well as schools and the local cemetery" (DECC, 2013, p. 194).

Despite the discursive construction of women as vulnerable to the effects of climate change, the documents we surveyed did not provide definitions of the terms ‘vulnerable’ or ‘vulnerable groups’. Indeed, it is not clear that there is a definition, though there is an attempt seen in the National Adaptation Programme (2013) to increase ‘understanding of vulnerable groups by more effectively working between councils, front line service providers and voluntary organisations’ (p. 103). However, when looking at the discourse around ‘vulnerable groups’ more closely, the most commonly co-located social groups are the elderly and the poor, including the fuel poor. For example:

“[W]e are supporting customers by providing subsidised insulation, delivered by energy companies, to the most vulnerable households, as well as bill rebates to more than 600,000 vulnerable pensioners” (DECC, 2011, p. 14).

Indeed, fuel poverty is a growing issue in the UK (Jolin, 2014), but within the documents analysed, policy is limited to issues of poorly insulated homes and rising fuel prices, for example, thus in-keeping with a green economy approach to dealing with climate change through market fixes.

There are some underpinnings of feminist priorities seen throughout the documents analysed. These include references to issues of widening participation, issues of social justice and the under-representation of women in STEM. For example, the Department of Trade and Industries (DTI) White Paper on Energy (2007) states that ‘the DTI provides funding to the UK Resource Centre for Women in Science, Engineering and Technology (SET)’ (p. 230). While this represents a positive move towards recognition of women as marginalised in UK society, it is disappointing that subsequent policy documents, such as the Carbon Plan (2011) published four years later, does not take up this mantle and fails to mention women or gender once. Other examples include the National Planning Policy Framework (DCLG, 2006), which represents an apparent commitment to ‘create safe and

accessible environments where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion' (p. 15). But again, such broad statements do little if they do not dig deeper and unpack the potential reasons for 'fear of crime', or who fears crime at the hands of whom. Furthermore, there are occasional references to 'delivering socially just responses to climate change' (DEFRA, 2013, p. 51), which alludes to the priorities of the climate justice movement. In particular, the document notes that DEFRA will take account of social vulnerability and disadvantage caused by climate impacts and will respond to the potential health and wellbeing impacts of climate change (DEFRA, 2013).

While incorporating gender (or rather specifically women) is indeed a positive step forward towards a feminist leaning of climate change politics, it does not, we argue, go far enough. That is to say that the dominant discourse of the UK's climate change politics remains trapped in what others have already identified as a masculinised climate politics of market efficiency and logic (Alaimo, 2009; Nagel, 2012; Nelson, 2012), with women conceived as vulnerable. The inclusion of gender issues within a masculinised green economy approach, as shown above, arguably reduces the concept to merely another variable, rather than questioning how the system itself is premised upon that very form of exclusion (Zupančič, 2017). In other words, a mere acknowledgement of issues such as gender balance practices by political institutions often leaves the structural conditions intact without working to shift the narrative.

The Gendered Division of Environmental Labour

Clearly, there are substantial implications for the gendered divisions of environmental labour within the UK's approach to dealing with climate change. The UK's climate change policy is rooted in a green economy approach which relies on technological advance and market fixes. A green economy, however, does not have the capacity to account for well-being,

vulnerability or power imbalances (Power, 2009). For example, Jacobs and Mazzucato (2016) present a ‘green economy’ vision of climate change governance that focuses on research and innovation, but entirely fail to acknowledge the highly gendered nature of such an approach. Jobs created in science, technology and innovation – i.e. the good jobs of climate change (Sauer and Wohl, 2011) – are largely jobs created by and for men. Women make up just 21% of management jobs in science, technology, engineering and maths (STEM), and only 14% of management jobs in science, engineering and technology (SET) occupations (WISE, 2017). A green economy, therefore, produces jobs for men.

It is these ‘good jobs’ of climate change, the high earning, high-skilled jobs that are explicitly recognised, from a gendered perspective, in the UK’s climate policy. Indeed, there is a commitment to ensure that funding for women in STEM positions is made available (DTI, 2007). Yet, there is little substance to this commitment, with little to no recognition given to the barriers faced by women, including women of colour, women with disabilities, or lesbian and transgender women. It does not recognise the barriers faced by working mothers who already face the burden of a double day, for example. While the DTI notes that ‘around 25% of the energy workforce is female compared with 43% nationally, and only around 4% are from a black/ethnic minority background, versus 8% for the whole economy’ (DTI, 2007, p. 230), there are no plans set out for insuring the participation of women who are on the intersection of multiple oppressed identities. Ultimately, while the UK’s approach to dealing with climate change goes some way to recognise the (heteronormatively) gendered nature of the good jobs of a green economy, it remains almost entirely blind to an intersectional understanding of exclusion. That is, segmenting injustice allows the inclusion of ‘women’ in policy measures without truly addressing the specific individual labouring bodies that might enjoy such measures.

The racialised nature of the good jobs of climate change can also be seen in the UK's international response to climate change. While women in the Global North are encouraged to 'lean in' (Sandberg, 2013) to masculinised roles, women in the Global South are not afforded this same autonomy. For example, the government-funded project in Senegal to provide an anti-salt dyke to reclaim land for rice fields, typically worked by women (DTI, 2007), purely provides an anti-salt dyke. This excludes a potentially more transformative approach because it does not provide funding to strengthen women's position in society to allow access to technical knowledge and improved technologies, nor to contribute to the policy-making process. Women are not simply vulnerable victims in the face of changing climates and facilitating women to take a greater role in protecting against climate change could result in their greater control of production outputs and benefits. Yet, simply providing anti-salt dykes removes this autonomy and positions women in need of masculinised protection, thus perpetuating a vulnerability discourse.

At the same time as women are encouraged to lean into the good jobs of a green economy, however, we see a rise in undesirable, low-wage jobs for the masses (MacGregor, 2017), such as in industries like waste management. For example, the European Environment Agency (EEA) reports that jobs in recycling related activities are increasing by over 10% per year across Europe (EEA, 2011; cited in MacGregor, 2017). Since contemporary production practices enable a demand for flexible working conditions, there is an increase in casualisation and informalisation of labour conditions as well as an increase in temporary contracts and unprotected employment standards and workspaces (Sauer and Wohl, 2011). Women and migrant workers who are not well educated are, through lack of alternatives to more gainful employment, channelled into these kinds of working conditions which are often dirty, demeaning and dangerous (Sauer and Wohl, 2011). For example, Gregson et al. (2016) found that textile recycling depends on migrant women workers from

Eastern Europe who are paid minimum wage to sort through dirty clothing. The women in the study complained of skin conditions, asthma, and other health issues resulting from poor air quality and long shifts without breaks. Yet, the only mention of textile recycling to be found in the UK's climate change policy was far more concerned with 'material efficiency' (DECC, 2011) than the health of recycling workers. MacGregor (2017) suggests that 'labelling these industries 'clean and green' and endorsing them as positive routes to economic transformation seems highly questionable when viewed from the perspective of people working on the factory floors' (2017). Environmental labour thus becomes an arena upon which to entrench racial, gender, and class-based inequalities that enable contemporary forms of production.

It is clear that within the UK's climate policy there continues to be a complete lack of critical reflection upon the dirty jobs of climate change, and specifically on who might undertake these roles. Even though in this study we analysed 48 specific references to recycling policies, these documents include no mention of the embodied experience of recycling, including migrant workers subjected to precarious working conditions that remain highly unregulated, casualised and informalised (Sauer and Wohl, 2011; Chu and Micheal, 2018). Yet, instead of a concern for the 'who', climate change policies remain highly technical, such as setting 'targets for reducing the amount of waste sent to landfill and to increase the amount of recycling or composting' (DECC, 2013, p. 42) or to attributing greenhouse gas emissions to 'the disposal otherwise than for recycling of materials in whose production energy was consumed' (Parliament of the United Kingdom, 2008, p. 24).

Finally, as a result of neoliberal logics being deeply infused into climate change politics (Bee, Rice and Trauger, 2015) we have seen a reprivatisation of former state given care which ultimately restricts women by assuming that there is an unlimited supply of unpaid women's labour (Sauer and Wohl, 2011). Notions of green citizenship – or the

making of the good green citizen who recycles, shops locally, mends clothes and cooks from scratch – is notoriously blind to questions of ‘who is doing this unpaid household work?; the answer to which is most often women’ (MacGregor, 2014). A green economy, as laid out in the UK climate policy documents analysed, does not incorporate strategies for collectivising caring services or creating jobs in low carbon sectors such as social care or education (MacGregor, 2017), but instead ‘inclusive and sustainable growth’ continues to assume that this kind of reproductive labour will be indefinitely available.

Climate change policy, from the local to the global levels, has long been caught in very technical language (Ciplet, Roberts and Khan, 2015), ultimately invisibilising issues of inequality. Climate change policy is less about interpersonal relations or about how women are represented, and more about getting very specific into legal documents (Hulme, 2010). It is through the assumption that climate change is a technical issue that perhaps accounts for the fact that the sector has been historically male dominated, but also which diverts attention from issues of social justice (Patterson, Thaler, Hoffman, *et al.*, 2018). Amongst technical discussions of specific trading schemes or commitments to carbon savings there is no space for a feminist discussion about the green economy. A focus on the technicality of climate change, and an ultimate concern for the green economy, positions economic growth above the social considerations required for an embodied politics of climate change.

Towards an Intersectional Embodied Politics of Climate Change

In this paper we have demonstrated how, despite a nod to issues of climate justice in the guise of widening participation, climate change actions in the UK are overshadowed by masculinised discourses of economic growth, global energy races, maximising free markets and the creation of environmental citizens. Such a technical and economically focused lens on climate change results in a blindness to the ‘who’ in the labour of climate change. In this

section we offer some thoughts on how an intersectional feminist lens can account for the omissions that result from such a blindness.

First, a green economy – or any kind of economy: capitalist, sharing, circular, or green – would collapse if it were not for women (MacGregor, 2017). Yet the crucial but unpaid reproductive labour predominately performed by women continues to go unacknowledged. Furthermore, despite the assertion that a green economy will both pave the way for greener forms of consumption while creating jobs in the process (see Cipler, Roberts and Khan, 2015), those jobs are not of equal levels of decent work. Focus might be paid to the good jobs of climate change (i.e. the high paying jobs in STEM), but there is no articulation of the low wage jobs for the masses (i.e. in waste disposal and recycling), nor the labour of social reproduction (i.e. the household jobs). The everyday politics of climate change (see Ziervogel *et al.*, 2017) are not only constituted within the good jobs of climate change, but also embody the household and dirty jobs.

Second, a green economy is, in fact, a project of neoliberal governance, whereby responsibility for action on climate change is projected onto good green environmental citizens (Brand, 2012; MacGregor, 2014, 2016). By applying an environmental lens to the household jobs of climate change, women are not only expected to become a hockey-mom, full-time mum, or yummy mummy, but they must also be an eco-mom (Bates, 2014) and a good green citizen who shops locally, mends clothes, and recycles religiously – all acts of free reproductive labour (social reproduction) upon which a green economy relies (Di Chiro, 2008; Bauhardt, 2014). Yet, in keeping with an approach that prioritises economic growth, a green economy is hailed for its ability to create jobs. For example, the creation of Local Enterprise Partnerships (LEPs) ‘provides a clear vision and strategic leadership to drive sustainable growth and job creation’ (DECC, 2013, p. 94). Therefore, a narrative shift away from concern with sustainable growth and job creation towards an embodiment of climate

change policy can help place those most marginalised, and traditionally invisibilised, front and centre in a truly feminist climate politics.

Third, this study shows that injustice is seen as homogenous – meaning that the term vulnerable stands as an umbrella term for intersecting (marginalised and oppressed) identities. Our analysis found that while gender is increasingly referred to in public policies, the racialised and classed nature of a green economy is given little attention. Calling industries clean, green and climate-ready can only be true if we entirely ignore the everyday spaces in which these industries are carried out as well as the gendered, raced, and classed bodies that carry them out.

Formulating an Embodied Politics of Climate Change

In summary, through adopting an intersectional approach we have argued that a green economy approach to climate solutions diverts attention from the labouring bodies in climate politics, invisibilising the ‘who’ in the experience of climate solutions. Through critically engaging gendered divisions of labour in climate policy, we have shown how a surface-level inclusion of gender perspectives in a climate politics that is dominated by masculinised discourses of a green economy - especially one that works to ensure market growth - perpetuates the labouring bodies associated with specific labour markets. Finally, we have suggested that an intersectional approach to climate change policy can account for these omissions.

Furthermore, in the case of the UK’s climate change policy, we have demonstrated how injustice is not homogenous. While women constitute some of the most marginalised, excluded or even precarious segments of society (Young, 2011), there are other intersections of class, race/ethnicity, ability or sexuality which pre-determines the specific bodies within the different labour markets of climate change. We argue that a more just form of climate

change politics requires a better understanding of the embodiment of actions and have provided some initial thoughts on how this might be achieved. For example, we might consider how low carbon industries can prioritise health, social care and education access. This therefore prevents us from turning a blind eye to the growing need to import cheap domestic labour, nor would it continue to assume that unpaid reproductive labour is in indefinite supply. An embodied politics of climate change ultimately allows us to consider the true intersectional costs and benefits of climate solutions, particularly as they are experienced in the everyday lives of the most marginalised sectors of society.

While it is not our aim to provide policy recommendations, we do propose some ways in which a more just, intersectionally-informed climate politics might be formulated. In the first instance, future research might draw upon the important theorising by prominent feminist Marxists such as Nicole Cox and Silvia Federici around the debate ‘wages for housework’ (see Cox and Federici, 1976). That is, how denaturalising the household labour (i.e. recycling) involved in social reproduction (through providing it with a wage), or making it visible in the global political economy, might de-couple the supposedly natural relation between the female body and reproductive labour. Indeed, ‘the fact that housework is unwaged has given to this socially imposed condition a natural appearance’ (Cox and Federici, 1976, p. 8). Second, a greater focus on justice and the politics of difference (see Young, 2011), whereby public policy should undermine group-based oppression by affirming rather than suppressing social group difference. In this context, climate policy should openly address differences in the labouring bodies associated with particular environmental labour markets, again denaturalising the presumed natural connections.

Finally, we suggest that theories of climate justice must engage more seriously with issues of recognition to enable a more radical climate justice (Fraser, 1997; Fricker, 2007; Chu and Micheal, 2018). That is, climate justice requires considerations that go beyond

participation and access to decision making but also entails recognising ‘existing forms of inequality and how climate change actions exacerbate or entrench underlying structural disadvantages’ (Chu and Micheal, 2018, p. 3). Thus, more academic engagement with recognitional justice could help make visible those who are ‘constantly invisibilised, often negatively stereotyped, and maligned in public or cultural representations’ (Chu and Micheal, 2018, p. 14). It is not within the scope of this paper to unpack the ways in which these proposals might help in the formulation of a more just, intersectionally-informed climate politics, but we welcome future academic engagement with such ideas.

Acknowledgements

We are very grateful to Joyeeta Gupta for all her support and encouragement in the early days of this project. We would also like to thank Sherilyn MacGregor, Matthew Paterson, Jake Flavell, Peter Kraftl, Rosie Day, Irina Kuznetsova, Natasha Cornea, and Steve Emery whose thoughtful feedback and suggestions helped greatly improve this article. Finally, we thank the editors and three anonymous reviewers at *Environmental Politics* for their careful reading and constructive comments.

References

- Alaimo, S. (2009) 'Insurgent Vulnerability and the Carbon Footprint of Gender', *Kvinder, Køn og Forskning (Women, Gender and Research)*, 3–4, pp. 22–35.
- Anshelm, J. and Hultman, M. (2014) 'A green fatwar? Climate change as a threat to the masculinity of industrial modernity', *NORMA: International Journal for Masculinity Studies*, 9(2), pp. 84–96.
- Arora-Jonsson, S. (2011) 'Virtue and vulnerability: Discourses on women, gender and climate change', *Global Environmental Change*, 21, pp. 744–751.
- Bates, L. (2014) *Everyday Sexism*. London: Simon & Schuster UK Ltd.
- Bauhardt, C. (2014) 'Solutions to the crisis? The Green New Deal, Degrowth, and the Solidarity Economy: Alternatives to the capitalist growth economy from an ecofeminist economics perspective', *Ecological Economics*. Elsevier B.V., 102, pp. 60–68.
- Bee, B. A. (2016) 'Power, perception, and adaptation: Exploring gender and social-environmental risk perception in northern Guanajuato, Mexico', *Geoforum*, 69, pp. 71–80.
- Bee, B. A., Rice, J. and Trauger, A. (2015) 'A Feminist Approach to Climate Change Governance: Everyday and Intimate Politics', *Geography Compass*, 9(6), pp. 1–12.
- Brand, U. (2012) 'Green Economy - the Next Oxymoron?', *GAIA - Ecological Perspectives for Science and Society*, 21(1), p. 5. Available at: <http://www.ingentaconnect.com/content/oekom/gaia/2012/00000021/00000001/art00009>.
- Buckingham, S. (2004) 'Ecofeminism in the twenty-first century', *Geographical Journal*, 170(2), pp. 146–154.
- Buckingham, S. and Kulcur, R. (2009) 'Gendered geographies of environmental injustice', *Antipode*, 41(4), pp. 659–683.
- Di Chiro, G. (2008) 'Living environmentalisms: coalition politics, social reproduction, and environmental justice', *Environmental Politics*, 17(2), pp. 276–298.
- Chu, E. and Micheal, K. (2018) 'Recognition in urban climate justice: marginality and exclusion of migrants in Indian cities', *Environment & Urbanization*.
- Ciplet, D., Roberts, J. T. and Khan, M. R. (2015) *Power in a Warming World: The New Global Politics of Climate Change and the Remaking of Environmental Inequality*. MIT Press (Earth System Governance).

- Cox, N. and Federici, S. (1976) *Counter-planning from the kitchen: wages for housework, a perspective on capital and the left*. New York: New York Wages for Housework Committee.
- Crenshaw, K. (1993) 'Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color', *Stanford Law Review*, 43(1241), pp. 1241–1299.
- Cuomo, C. J. (2011) 'Climate change, Vulnerability, and responsibility', *Hypatia*, 26(4), pp. 690–714.
- Davis, K. (2008) 'Intersectionality as buzzword: a sociology of science perspective on what makes a feminist theory useful', *Feminist Theory*, 9(1), pp. 67–85.
- Demetriades, J. and Esplen, E. (2008) 'The Gender Dimensions of Poverty and Climate Change Adaptation', *IDS Bulletin-Institute Of Development Studies*, 39(4), pp. 24–31.
- EEA (2011) 'Earnings, jobs and innovation: the role of recycling in a green economy', (8), p. 28.
- Enloe, C. (2014) *Bananas, Beaches and Bases: Making Feminist Sense of International Politics*. 2nd edn. California: University of California Press.
- Fankhauser, S., Averchenkova, A. and Finnegan, J. (2018) *Policy brief 10 years of the UK Climate Change Act*. London. Available at: <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/04/10-years-of-UK-Climate-Change-Act-Summary-Policy-Brief.pdf>.
- Fraser, N. (1997) *Justice Interruptus: Critical Reflections on the "Postsocialist" Condition*. New York and London: Routledge.
- Fricke, M. (2007) *Epistemic Injustice*. Oxford: Oxford University Press.
- Gaard, G. (2015) 'Ecofeminism and climate change', *Womens Studies International Forum*, 49, pp. 20–33.
- Gregson, N. *et al.* (2016) 'Doing the "dirty work" of the green economy: Resource recovery and migrant labour in the EU', *European Urban and Regional Studies*, 23(4), pp. 541–555.
- Griffin, P. (2007) 'Refashioning IPE: What and How Gender Analysis Teaches International (Global) Political Economy', *Review of International Political Economy*, 14(4).
- Hulme, M. (2010) 'Problems with making and governing global kinds of knowledge', *Global Environmental Change-Human And Policy Dimensions*, 20(4, SI), pp. 558–564.
- IPCC. (2018) *Global Warming of 1.5 °C: An IPCC Special Report on the Impacts of Global Warming of 1.5 °C above Pre-Industrial Levels and Related Global Greenhouse Gas*

Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change. Geneva, Switzerland: Intergovernmental Panel on Climate Change (IPCC).

Jacobs, M., Mazzucato, M. and (eds) (2016) *Rethinking Capitalism: Economics and Policy for Sustainable and Inclusive Growth*. Chichester: The Political Quarterly Publishing Co. Ltd.

Jolin, L. (2014) *The scandal of Britain's fuel poverty deaths*, *The Guardian*. Available at: <http://www.theguardian.com/big-energy-debate/2014/sep/11/fuel-poverty-scandal-winter-deaths> (Accessed: 17 February 2017).

Kaijser, A. and Kronsell, A. (2014) 'Climate change through the lens of intersectionality', *Environmental Politics*, 23(3).

Kaijser, A. and Kronsell, A. (2014) 'Climate change through the lens of intersectionality', *Environmental Politics*, 23(3), pp. 417–433.

Kronsell, A., Smidfelt Rosqvist, L. and Winslott Hiselius, L. (2016) 'Achieving climate objectives in transport policy by including women and challenging gender norms: The Swedish case', *International Journal of Sustainable Transportation*. Taylor & Francis, 10(8), pp. 703–711.

Lazar, M. M. (2007) 'Feminist Critical Discourse Analysis: Articulating a Feminist Discourse Praxis1', *Critical Discourse Studies*, 4(2), pp. 141–164.

MacGregor, S. (2010) "'Gender and climate change": From impacts to discourses', *Journal of the Indian Ocean Region*, 6(2), pp. 223–238.

MacGregor, S. (2014) 'Only resist: Feminist ecological citizenship and the post-politics of climate change', *Hypatia*, 29(3), pp. 617–633.

MacGregor, S. (2016) 'Citizenship: Radical, Feminist, and Green', in Gabrielson, T. et al. (eds) *The Oxford Handbook of Environmental Political Theory*. Oxford Handbooks, pp. 1–19.

MacGregor, S. (2017) *Planet 50:50? Linking labour and environment this International Women's Day*, *Sustainable Consumption Institute*. Available at: <http://www.sci.manchester.ac.uk/connect/blog/planet-5050-linking-labour-and-environment-this-international-womens-day/> (Accessed: 31 August 2017).

Mcfarland, J. (2014) 'Are There Jobs for Women in Green Job Creation?', *Women & Environments International Magazine*. Toronto, (94/95), pp. 22–25.

- Mol, A. P. J. (1996) 'Ecological modernisation and institutional reflexivity: Environmental reform in the late modern age', *Environmental Politics*. Routledge, 5(2), pp. 302–323.
- Nagel, J. (2012) 'Intersecting identities and global climate change', *Identities-global studies in culture and power*, 19(4), pp. 467–476. doi: 10.1080/1070289X.2012.710550.
- Nelson, J. (2012) 'Is Dismissing the Precautionary Principle the Manly Thing to Do? Gender and the Economics of Climate Change', *IDEAS Working Paper Series from RePEc*. St. Louis, 12(04), pp. 1–21.
- Nelson, J. A. (2008) 'Economists, value judgments, and climate change: A view from feminist economics', *Ecological Economics*, 65, pp. 441–447.
- Organo, V., Head, L. and Waitt, G. (2012) 'Who does the work in sustainable households? A time and gender analysis in New South Wales, Australia', *Gender, Place & Culture*, 20(5), pp. 1–19.
- Patterson, James J, Thomas Thaler, Matthew Hoffmann, Sara Hughes, Angela Oels, Eric Chu, Aysem Mert, Dave Huitema, Sarah Burch, and Andy Jordan. (2018) 'Political Feasibility of 1.5°C Societal Transformations: The Role of Social Justice', *Current Opinion in Environmental Sustainability* 31 (April): 1–9.
- Pease, B. (2016) 'Masculinism, Climate Change, and "Man-Made" Disasters: Towards an Environmental Profeminist Response', in Enarson, E. and Pease, B. (eds) *Men, Masculinities, and Disaster*. London: Routledge.
- Peterson, V. S. (2016) 'Towards queering the globally intimate', *Political Geography*. Elsevier Ltd, pp. 2005–2007.
- Power, M. (2009) 'Global Climate Policy and Climate Justice: A Feminist Social Provisioning Approach', *Challenge*, 52(1), pp. 47–66.
- Sandberg, S. (2013) *Lean In: Women, Work and the Will to Lead*. New York: Random house Inc.
- Sauer, B. and Wohl, S. (2011) 'Feminist Perspectives on the Internationalization of The State', *Antipode*, 43(1), pp. 108–128. doi: 10.1111/j.1467-8330.2010.00813.x.
- Shepherd, L. J. (2008) 'Power and authority in the production of United Nations Security Council Resolution 1325', *International Studies Quarterly*, 52(2), pp. 383–404.
- Shepherd, L. J. (2010) 'Sex or Gender? Bodies in World Politics and Why Gender Matters', in *Gender Matters in Global Politics: A Feminist Introduction to International Relations*. Oxon: Routledge.

- Sjoberg, L. (2012) 'Toward Trans-gendering International Relations?', *International Political Sociology*, 6(4), pp. 337–354.
- Spaargaren, G. and Mol, A. P. J. (1992) 'Sociology, environment, and modernity: Ecological modernization as a theory of social change', *Society & Natural Resources*. Routledge, 5(4), pp. 323–344.
- Swyngedouw, E. (2010) 'Apocalypse Forever? Post-political Populism and the Spectre of Climate Change', *Theory, Culture & Society*, 27(2–3), pp. 213–232.
- Tuana, N. (2008) 'Viscous porosity: witnessing Katrina', in Alaimo, S. and Hekman, S. (eds) *Material feminisms*. Indiana: Indiana University Press, pp. 188–212.
- Twine, R. (1997) *Masculinity, nature and ecofeminism*, *ecofemi.org/journal*. Available at: <http://richardtwine.com/ecofem/masc.pdf> (Accessed: 23 January 2019).
- UNDP (2015) 'Sustainable Development Goals'. Available at: http://www.undp.org/content/dam/undp/library/corporate/brochure/SDGs_Booklet_Web_En.pdf
- UNFCCC (1997) 'Kyoto Protocol to the United Nations Framework Convention on Climate Change'.
- UNFCCC (2015) 'Decision 1/CP.21 Adoption of the Paris Agreement', *FCCC/CP/2015/10/Add.1*. Available at: <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.
- Vaughan, A. (2013) 'Cameron pushes energy efficiency as motor of green growth', *The Guardian*, 4 February. Available at: <https://www.theguardian.com/environment/2013/feb/04/cameron-green-growth-energy-efficiency%0D>.
- Waring, M. (1988) *If Women Counted: A New Feminist Economics*. San Francisco, CA USA: Harper.
- WISE (2017) *Women in the STEM Workforce 2016*. Available at: <https://www.wisecampaign.org.uk/resources/2016/11/women-in-the-stem-workforce-2016> (Accessed: 12 January 2016).
- Young, I. M. (2011) *Justice and the Politics of Difference*. Princeton University Press.
- Yuval-Davis, N. (2011) *The Politics of Belonging: Intersectional Contestations*. London: SAGE Publications Ltd.
- Ziervogel, G. *et al.* (2017) 'Inserting Rights and Justice into Urban Resilience: A Focus on Everyday Risk', *Environment and Urbanisation*, 29(1), pp. 123–138.

Zupančič, A. (2017) *What is Sex?* MIT Press.

Appendix 1: Documents used in Textual Analysis

Document Details	Description
<p>Guidance on fracking: developing shale gas in the UK</p> <p>Published in 2017 by the Department for Business, Energy and Industrial Strategy</p>	<p>This document provides an overview on the process of hydraulic fracturing, also known as fracking, providing guidance on using the technique in the UK. The document sets out that the government established an office to develop the shale gas industry in the UK and are now taking steps to encourage the safe and environmentally sound development of shale gas.</p>
<p>National Planning Policy Framework</p> <p>Published in 2006 by the Department for Communities and Local Government</p>	<p>The National Planning Policy Framework sets out the government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. This document, which is no longer available through the government websites, has since been updated and replaced.</p>
<p>National Planning Policy Framework</p> <p>Published in 2018 by the Department for Communities and Local Government</p>	<p>The National Planning Policy Framework, published on the 24 July 2018, sets out the government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. This document replaces all previous versions.</p>
<p>The Carbon Plan: Delivering our low carbon future</p> <p>Published in 2011 by the Department for Energy and Climate Change</p>	<p>This plan sets out how the Coalition Government of 2011 policies put the UK on track to meet long term greenhouse gas (GHG) commitments. It sets out the Green Deal, the Green Investment Bank and reforms to the electricity market which will generate new jobs in low carbon industries.</p>
<p>The UK's Sixth National Communication and First Biennial Report under the UNFCCC</p> <p>Published in 2013 by the Department for Energy and Climate Change</p>	<p>This document, requested under Article 12 of the United Nations Framework Convention on Climate Change (UNFCCC), provides a comprehensive overview of how climate change related activity in the UK – including progress made at home and abroad to reduce GHG emissions, and to adapt to the effects of a changing climate.</p>
<p>The National Adaptation Programme: Making the</p>	<p>This National Adaptation programme covers 2013 to 2018 and shows what the government is doing to support</p>

<p>Country Resilient to a Changing Climate</p> <p>Published in 2013 by the Department of Environment, Food & Rural Affairs</p>	<p>UK adaptation plans. Preparations include ensuring the long-term cleanliness of the River Thames as well as preparing for future intensity of rainfall. The document was prepared by the government in collaboration with experts from industry, local government and civil society.</p>
<p>Meeting the Energy Challenge: A White Paper on Energy</p> <p>Published in 2007 by the Department for Technology & Innovation</p>	<p>This White Paper sets out a framework for action to address the challenges facing the UK in terms of energy, including UK reserves of oil and gas declining while world energy demand continues to grow. The document sets out the governments international strategy which recognises the need to tackle climate change and energy security together.</p>
<p>Climate Change Act 2008. HM Government</p> <p>Published in 2008 by the Parliament of the United Kingdom</p>	<p>The Climate Change Act underpins the entirety of the UK's climate change policy. It sets a target for the year 2050 for the reduction of targeted GHG emissions, provides a system for carbon budgeting, establishes the Committee on Climate Change, and confers powers to establish trading schemes as well as making provisions for adaptation, providing financial incentives to produce less domestic waste and to recycle more.</p>