



AN ABSTRACT OF THE THESIS OF

Rachel K. Brinker for the degree of Master of Arts in Women Studies presented on May 24, 2012

Title: “Walloped” by the Weather? Deflections, Diversions, and Dubious Representations of Women in Climate Change Discourse

Abstract approved:

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Research shows that women’s lives are disproportionately impacted by the effects of climate change. While the topic of women is largely absent from climate discourse overall, the representations of women that occur reveal underlying structures of power rooted in imperialism and colonial dominance. This thesis presents an analysis of the ways in which the category “woman” is constructed in climate change discourse by utilizing data from the micro-blogging site Twitter.com in the 60 days surrounding the 17th UNFCCC Conference of the Parties (COP17) in 2011. The findings of this research are that women are represented through imageries of violence and victimization, while simultaneously constructed as mythical heroines/warriors who will defend and save humanity from this global threat. Using transnational and postcolonial feminist theory, I critique these representations and examine the function and consequences of the narrow representations of women in climate change discourse. Based on the findings, this thesis suggests that a shift towards the *discursive feminization of climate change* could occur in the future, wherein the ways in which climate

change is viewed and responded to may move from the current frame of governability, commodification, and securitization, to a frame that sees climate change as a “women’s issue.” Feminist intervention into climate change discourse is greatly lacking, and this thesis argues that feminist engagement with the problem of climate change is necessary for gender justice in our climate-altered world.

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“Walloped” by the Weather? Deflections, Diversions, and Dubious  
Representations of Women in Climate Change Discourse

by  
Rachel K. Brinker

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes the release of my thesis to any reader upon request.

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Rachel K. Brinker, Author

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## **Introduction**

Climate change is arguably the most ubiquitous and insidious problem facing the world in the 21<sup>st</sup> century. The effects of climate change continue to have a growing influence on social relations and distributions of power throughout human societies. The global movement to respond to climate change and the call for climate justice brings to light multiple layers of global inequality, power, and oppression, which are simultaneously reflected within the movement and resisted by the movement to address climate change.

Digital social media, through which people, represented by virtual profiles, share information and resources, have become a new genre of discourse (McAdams, 2012). Researchers have taken an interest in exploring the unprecedented role of social media in the most recent major social movements, such as the “Arab Spring,” Occupy Wall Street, and the reinvigoration of the women’s health and reproductive justice movement in the U.S. in response to a conservative backlash and an increase in repressive legislation at the state and federal levels (Watson, 2012).

Social media enjoy particularly heavy use in the context of large international conferences and meetings (DeVoe, 2010). In particular, thousands of participants, reporters, and activists around the world used the micro-blogging site Twitter.com as a platform for information sharing, reporting, and activism related to the 17<sup>th</sup> United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP17) in Durban, South Africa, from November 28 to

December 9, 2011. Over 12,480 participants attended the conference, including over 5400 government officials, 5800 representatives of UN bodies and agencies, intergovernmental organizations and civil society organizations, and more than 1200 members of the media (IISD, 2011). The outcomes of COP17, summarized by the International Institute for Sustainable Development are:

the establishment of a second commitment period under the Kyoto Protocol, a decision on long-term cooperative action under the Convention, the launch of a new process towards an agreed outcome with legal force applicable to all parties to the Convention, and the operationalization of the Green Climate Fund. (2011)

Using a transnational feminist lens, this thesis presents an analysis of representations of women in the climate change discourse found in the micro-blogging and social networking site Twitter.com in the 60 days surrounding COP17.

I utilize Twitter as one of many possible sampling tools to examine discourse and explore the usefulness of Twitter as such a tool for research. Due to the brevity required by “tweets” (limited to 140 characters) as well as Twitter’s hyperconnectivity to other online content, this social media platform can act as a window into the larger discursive frame surrounding an issue through hyperlinks to websites and articles, and the conversation between Twitter users through “retweets” and replies. In addition, media and social researchers are examining the ways in which social media sites such as Twitter create new discursive space as well as new forms of virtual community.

I do not purport to know everything about climate change, and I am certainly not an expert in the technical aspects of climatic changes caused by the burning of fossil fuels. However, to anyone who cares to look, it is clear that climate change is real and will be one of the most important social, political, and environmental issues of this century. As my training in feminist analysis leads me to ask questions about power, privilege, and oppression in any topic in which I take an interest, I turn this framework of analysis to the topic of climate change. Considering how large a discussion it has created in the scientific community as well as in popular culture, I found it troubling to discover in my literature review that very little feminist research has been done on the social aspects of climate change, save for the subfield of Women in Development (WID).

Sherilyn MacGregor (2009) illustrates the ways in which a gendered analysis of climate change has been underdeveloped in feminist social research. She argues that feminist researchers need to end the “strange silence” around environmental topics, broadly, and climate change more specifically. The tendency, as illustrated by my review of the literature, is to turn the focus onto how “other” women in “Least Developed Countries” (LDCs) will be affected by climate change. This is important work. However, the ways women in the global South are affected by climate change are not the only aspects of climate change that deserves feminist analysis.

MacGregor (2009) calls for a broadening of focus in feminist research on climate change to include not only the current focus on case studies of the

gendered differences in the experience of climate change, but also to include new critical social theorizing on the topic as well as investigations of the gendered discursive practices associated with climate change. Additionally, she urges feminist researchers to move into looking at how these issues are found within discourse, practices and material realities of the global North rather than singularly focusing our lens upon the global South's experience of climate change.

My work here has three main aims. First, it serves as a call to action for feminist scholars to pay attention to climate change as a social issue and integrate consideration of climate change into their work. Second, I analyze representations of women in climate change discourse by utilizing Web 2.0 technologies. Finally, I make a contribution to the development of new critical social theories of climate change and the interrelated environmental and social issues we will face in the 21<sup>st</sup> century.

This chapter outlines the theoretical frameworks applied in this research. The following chapter presents a review of the relevant literature on climate change, economic development, and proposed solutions to climate change. In the third chapter, I review the literature on uses of new social media, and Twitter in particular, for social research and discuss the method used for this discourse analysis. Chapter Four presents the discussion of the findings regarding how women are represented in relation to climate change on Twitter. Finally, my conclusions and recommendations for future research are made in Chapter Five.



### **Why is Climate Change a Feminist Issue?**

Climate change has primarily been considered a technological, scientific, and environmental problem requiring a top-down approach through international policies and transnational negotiations. This approach utilizes the mechanisms of neoliberal global economic development to bring climate change responses such as adaptation and mitigation programs into the realm of the free market. Alongside these hegemonic responses and uses of climate change, a global social movement for climate justice has developed, which falls under what Nancy Naples and Manesha Desai (2002) refer to as “globalization from below” (p. 32). The dominant neoliberal response harnesses climate change for neo-colonial projects of domination through conventional market-based adaptation and mitigation programs that dovetail with existing global economic development projects. The movement for climate justice resists these hegemonic uses of climate change as a mechanism for profit, and seeks to create an equitable system of response, wherein those who are most responsible for causing climate change are also those who bear the costs and consequences such global climate change will bring.

Research has shown that climate change is not a gender-neutral issue. The fact that an increase in the severity, frequency and unpredictability of weather patterns, rising sea levels, and significantly destructive weather events will serve to further intensify existing problems of social inequality is well documented in the literature on women and development (e.g., Boyd, 2002; Chebichii, 2010; Dankelman, 2002; Denton, 2002; Hemmati and Rohr, 2009; Nelson et al., 2002;

Skutsch, 2002; Terry, 2009; Wong, 2009). We know from this body of research that women are the majority of the world's food producers and household managers; thus, are disproportionately harmed and uprooted in disaster situations; are at increased risk to experience domestic violence and sexual assault following a disaster; have less access to resources; are less likely to own land (and thus less likely to have influence over the management of that land); and less access to decision- and policy-making positions (see also UNDP, 2009).

Moreover, climate change is a feminist issue because of the historical associations between women and the environment. Ecofeminist scholars such as Susan Griffin (1978) and Karen Warren (1987) elucidate the ways in which western philosophy is grounded in a dichotomous worldview which sees humans as separate from nature, but due to hierarchical gender ranking, views women and femininity as closer to nature than men, masculinity, and the related qualities of logic, reason, and all aspects of civil society. Thus, the environment itself is gendered and, as ecofeminists argue, systems that justify and perpetuate environmental degradation reinforce and interconnect to patriarchal systems that justify and perpetuate subordination of women and domination of men.

### **A Transnational Feminist Framework**

The conceptualization of feminism in which my research is grounded grows from the work of Chandra Talpade Mohanty (2003) and other women of color feminists such as bell hooks and Patricia Hill Collins, who understand feminism as the movement to end sexist oppression but not with a singular focus

on gender relations. Instead, gender is seen “in relation to race and/or class as part of a broader liberation struggle” (Mohanty, 2003, p. 54). In particular, my feminist politic seeks to address the ways in which capitalism, imperialism, and the nation-state function as systems of domination that reinforce gender inequality and how common political struggle, rather than an inherent “universal sisterhood” creates the possibility for a transnational feminist solidarity among women from drastically differing social locations.

Mohanty (2003) explains that a transnational feminism perspective is “a racialized socialist feminism, attentive to the specific operations and discourses of contemporary global capitalism: a socialist feminist critique, attentive to nation and sexuality—and to the globalized economic, ideological, and cultural interweaving of masculinities, femininities, and heterosexualities in capital’s search for profit, accumulation, and domination” (p. 9). Mohanty argues that a critique of the discourses, values, and operation of capitalism and the naturalization of corporate culture and neoliberal ideology is fundamental to a transnational feminist framework. Additionally, transnational feminisms are concerned with decolonizing knowledge, which involves “a careful critique of the ethics and politics of Eurocentrism, and a corresponding analysis of the difficulties and joys of crossing cultural, national, racial, and class boundaries in the search for feminist communities anchored in justice and equality” (Mohanty, 2003, p. 11). In the context of this thesis, decolonizing knowledge implies attentiveness to self-reflexivity and positionality on my part as a white Euro-American researcher in the

U.S.; critiquing ways in which the Eurocentrism of “developmentalist discourses of modernity” (Mohanty, 2003, p. 10) factor in the discursive construction of climate change; examining issues of nation, home, and community; and considering how climate change factors into a movement toward political solidarity among women (and men) around the globe rather than an attempt to construct a global sisterhood.

Mohanty (2003) and other transnational feminists have problematized the way western feminists often view “Third World” women and challenge us with the problem of how to “undo whiteness” so that the practice of feminist studies is a fundamentally antiracist, anticapitalist practice. Discourses of “saving” poor, rural women from their situations in “underdeveloped” countries have been prevalent in feminist literature, as have universalized and essentializing representations of women from countries outside of Europe and the U.S., as well as of women of color within the borders of imperialist nation-states. Historically, Western liberal feminists have been critiqued for their use of patronizing language to describe “Third World Women” and for having ahistorical and apolitical attitudes toward “them” that construct a universalized, monolithic category of “Third World Women” (Mohanty, 2003; Narayan 1997). Rather than maintaining a binary between Western feminist subjects and Third World women as objects of study, Mohanty posits that feminist work should and can look like this: “a practice of multiculturalism that is about decolonization of received knowledges, histories and identities, a multiculturalism that foregrounds questions of social justice and

material interests, which actively combats the hegemony of global capital” (2003, p.188). Globalization continues to blur the lines between “here” and “there,” the local and the global, which, along with affecting material reality for women around the world in often negative ways, also allows for more nuanced research to occur from the basis of “intersubjectivity” (Mohanty, 2003, p. 192). This is in contrast to continual reinforcement of rigid lines between western researchers as knowledge-producers and “other” women in “other” cultures as subjects to be explored and discovered.

Neocolonial structures of global capitalism are founded on the “othering” of certain places and people in order to provide exploitable resources and labor for the benefit of those in power. Manesha Desai (2002) discusses the consequences of globalized capitalism for women around the world. She argues that with the fluid forces of globalization that ensure the flow of capital across borders and around the world, so too women’s agency exists in multiple spaces and in scattered networks. However, Nancy Naples (2002) explains that “[i]n the context of increased mobility and displacement, distinctions between home/abroad, insider/outsider, and Third World/First World, have become difficult to maintain” (p. 279). Academic feminists in the west also occupy these scattered, multiple spaces, and can format their work to connect with other pockets of feminism within the “scattered networks” both inside and outside the academy. As these authors point out, the delineations of inside/outside and global/local are blurring because of the current globalized economic system. Our current global context is

based on oppositional structures such as home/abroad, global/local, insider/outsider and at the same time the increased mobility set in motion by globalized capitalism has made these distinctions real only in our ideology, not in material reality.

Naples (2002) discusses what she terms the politics of possibility and the politics of location. “Localization involves ‘subjecting the logic of globalization to the test of sustainability, democracy, and justice’ and ‘reclaiming the state to protect people’s interest’” (p. 268). In a similar context, Mohanty (2003) discusses privatization, which is the transfer of public assets and services owned and performed by the government to business and individuals in the private sector. She argues that privatization of public resources and institutions (such as public universities) in the U.S. are the domestic parallel to structural adjustment programs (SAPs) in the developing world, with parallel sets of consequences in each. Both are insidious in the way that they operate under a rhetoric of liberation, freedom, opportunity, and independence but in actuality both create a situation that is oppositional to this rhetoric. The liberal rhetoric employed disguises the economically exploitive reality of both privatization in the west and SAPs in the developing world. Recognition of these parallels could be an important point of entry into solidarity among privileged U.S. feminist scholars and women of color and other marginalized populations around the world and within U.S. borders. When feminists recognize that globalization is not just something that happens to

*those victims over there* but also to themselves, there is potential for solidarity and powerful praxis.

These authors have made the point that feminist scholars in the U.S. hold much global privilege and therefore are in a position to address these issues of racialized and gendered global corporate capitalism. Indeed, if our work fails to consider these structures of power alongside gender we will be inadequately addressing the realities of modern hegemonic power as it operates in women's lives around the world as well as in our own lives. Therefore, it is the goal of this thesis to explore the following questions: How is the category "woman" constructed in climate change discourse? How might knowledge of women and climate change need to be "decolonized" and how might a researcher like myself, from a privileged position within neocolonial systems contribute to this through the politics of solidarity? Might Twitter, or social media in general, be a point of contact and a tool for solidarity and collaboration between scattered networks of feminists and provide one possible avenue for addressing issues of women and climate change?

### **Positionality and Self-Reflexivity**

It has long been recognized that problematizing the notion of objectivity by examining one's implicatedness in one's research is an essential element to conducting feminist research (e.g., DeVault, 1999; Mohanty, 2003; Weber, 2004). To this end, in the following section I examine my own positionality in relation to my research topic.

I am a white academic feminist and a resident and citizen of the United States. I live in the western U.S. in a small college city that is one of the top-rated environmentally sustainable cities in the country. The valley where the city is located is more sheltered than most places from natural disasters and severe weather, although a major earthquake in the region is predicted in the next 50-100 years. The city government is somewhat progressive and very supportive of the local activism toward community environmental and economic sustainability. Environmental consciousness is a central part of the dominant culture of the town, which is largely white, highly-educated, and financially secure. Locally produced food, small independent businesses, and alternative transportation and energy are all highly valued in the local culture.

While environmental sustainability and a journey toward community resilience and adaptation to climate change are common goals for residents in my city, the geographic, economic, and racial privilege held by most residents is left largely unexamined and taken for granted. My involvement with local environmental sustainability activism and my training in feminist analysis of privilege and oppression have led me to question the consequences of unexamined *climate privilege*, a concept which I will discuss in greater detail in my conclusion. These reflections on environmental privilege evolved into the formulation of this thesis. The initial question that concerned me and led to my examination of the representation of women in climate change discourse were: What are the consequences when in the face of climate change, unearned advantages such as



geographic location, access to adaptation resources, citizenship, and mobility are left unexamined—both for those with this privilege and for those who are least advantaged? This question led to the following questions: What is missing in discourses concerning women and climate change? What might academic feminism contribute to this discourse to assist the move to a more equitable and just response to climate change? How are the critiques that have been levied against Western feminisms by Mohanty and others around the language used to describe “other” women visible within the construction and representation of women in the discourse around climate change? How might we, as academic feminists from the global North, engage in this discourse in a way that does not reinforce colonial patterns of otherness?

I contend that just as with other systems of privilege and oppression, if climate privilege and discursive privilege (the unearned advantages that leads some people to have greater access to speak publicly, be heard, and taken seriously, over others) are not acknowledged, this will have consequences on those most oppressed by this system of inequality. Further, leaving climate privilege unexamined will serve to reinforce and perpetuate existing structures of power and inequity that continue to cause severe consequences in the lives of the most climate-oppressed people on the globe.

### **Feminism and Environmentalism**

I have been involved in both feminist and environmental activism, and it has always troubled me that there is such a lack of overlap in these two

movements, particularly in white culture. The major intersection of these two movements is ecofeminism, or environmental feminism, which the mainstream feminist movement in the U.S. largely ignores as a side issue to “real” feminist issues. For example, at the 2011 Annual Conference of the National Women’s Studies Association (NWSA), only five out of roughly 430 paper sessions focused on environmental topics. Some scholars have suggested this avoidance of environmental topics within the feminist movement is based on a fear that turning a feminist lens on environmental problems would reinforce the negative associations of femininity and women with nature (MacGregor, 2009; Seager, 1993).

Similarly, it has been well documented that mainstream environmental organizations largely leave patriarchal gender relations unchallenged, and the movement has been referred to by some as the “Big Green Patriarchy” (GenderCC, 2011). Two veins of environmentalism are prevalent in the U.S., yet neither one effectively integrates gender issues into the framework of environmental issues.

Conservationism tends to remove the social from the environmental altogether and seeks to preserve the “environment” as a pristine entity untouched by humans. Gender metaphors have been used heavily by this movement with its goals of preserving “virgin” lands and positioning conservationism as the masculine protector of a defenseless and passive “Mother Nature.”

Environmental justice, on the other hand, focuses on the ways power involves both social and environmental exploitation. Yet, race and class are the

major modes of analysis within environmental justice and gender is yet again a “side issue” (MacGregor, 2009). This sidelining of gender is a result of the fact that power within environmental movements is still largely in the hand of men and women are marginalized to positions of informal leadership and support (Seager, 1993).

My work and scholarly interests straddle the border between feminism and environmentalism, and the border between these two movements is a line that I hope my work continues to blur. I want these two social movements to meld into one stronger and more powerful movement that refuses to delineate between nature and culture, environment and society. I look around at the current state of the world and I see that we no longer have the luxury of seeing these things—social problems and environmental problems--as separate. The basic assumption I am making, which forms the basis for my work, is that the same hegemonic structures of power result in both the increasing environmental degradation (including climate change) and the increasing social inequality our world is experiencing (e.g., Seager, 1993; Shiva and Mies, 1993). Thus, movements focused on environmental problems and those focused on social justice will both be fortified and strengthened if these problems are addressed as one in the same.

As a global environmental and social problem, climate change must be examined in the context of globalized capitalism and imperialism. As previously mentioned, I am critical of the ways western liberal feminists have largely constructed the Third World Woman as a monolithic and universal identity.

Discourses on “saving” Othered women have been prevalent in Western feminism and in this thesis I am consciously challenging these tendencies common to many scholars and activists who inhabit similar social locations as myself.

These concerns have factored into my choices as a researcher in several ways, such as deciding against travelling in order to conduct “fieldwork” away from my own social and geographic location. Travelling for fieldwork in the context of studying inequality and climate change, and the resulting carbon emissions from flights (for instance, if I had travelled to Durban, South Africa to attend COP17 in person) was something I could not reconcile or justify. In addition, as Linda Tuhiwai Smith (1999) and Mohanty (2003), among others, discuss, colonialism and imperialism has long been reinforced by white researchers studying “other” people in exotic regions of the world in the service of advancing the white researcher’s career. Rather than travelling to an “elsewhere” I wanted my focus to be on the ways in which the lines between “there” and “here” are blurred.

### **A Note on Language**

The existing language that attempts to describe global structures of power is inadequate and problematic (Mohanty, 2003). In this thesis, I use terms such as the “developed” and “developing” world; the Third World and First World; the global North and the global South; and the Western and the non-Western world. However, while I engage in the use of these terms because they are used in academic literature, I acknowledge that they are all constructed binaries, which do

not describe reality with entire accuracy, and they continue to discursively center hegemonic colonialist nation-states and marginalize “other” places into positions of dependency and comparison to the “First World.” The terms “developed” and “developing” countries, and the First and Third Worlds, imply that the U.S. model of capitalist development is a linear movement of “progress.” These terms naturalize the processes of global capitalism as well as connote that such processes are inevitable and hierarchically ranked (Mohanty, 2003). Global North and South are terms used in an attempt to highlight how the history of colonization impacts the flow of goods and resources under current practices of globalization, but with the understanding that these relationships are not geographically mapped as neatly as the terms imply (Mohanty, 2003).

Through globalization, what we associate with the “West” (western pop culture and products, neoliberal ideologies, modernity, etc.) is now found worldwide. Likewise, capitalist cultural appropriation and the increased global use of cyber technology have diminished the lines between Western culture and non-Western culture even more. Furthermore, these terms tend to collapse and render invisible the racial, class, and gender inequalities that exist within developed nations, as well as the existing practices of colonization within the borders of developed nations against indigenous peoples. As I use these terms, I do so with the acknowledgment of these problematic issues, as I have outlined here.

## **Discourse**

MacGregor (2009) emphasizes the importance of looking at the ways in which “gendered environmental discourses frame and shape dominant understandings of [climate change]” and that the discursive construction of masculinities and femininities “shape the ways we interpret, debate, articulate and respond to social/natural/techno-scientific phenomena like climate change” (p. 127). Through discourse analysis dominant discourses are criticized and problematized through analysis by revealing contradictions and “non-expression,” or, what can be said and done under their cover, and illustrating the ways in which “acceptance of merely temporarily valid truths is to be achieved” (Jäger, 2001, p. 34).

Discourse, in the Foucauldian sense, is not limited to textual language but can encompass all social artifacts that convey meaning and reveal power relationships. Discourse is not outside of material reality, but rather, is co-constituted with material reality and has influence over determining reality by way of intervening active subjects who, in their social contexts, act as co-producers and co-agents of changes to both discourses and material reality (Jäger, 2001). However, the construction of discourse is larger than an individual’s action upon it, and discourses convey more knowledge than individual subjects are capable of conveying (Jäger, 2001).

Nancy Naples (2003) shares Foucault’s view of discourse as “not the property of individual actors and is itself a ‘practice’ that is structured and has real

effects” (p. 10). She makes the case for the material feminist appropriation of Foucauldian discourse analysis for understanding social policy and social movements. Discourse is understood by Naples as such: “discursive frames limit what can be discussed or heard in a political context and are not tied necessarily to particular organizations” (p. 9). Naples argues that discourse analysis allows us to see how “social policies are constituted in discourse and formalized in legislation which, in turn, shape the possibilities for implementation” (p. 10). Language reveals power, and a study of discourse is concerned not only with uses of language in itself, but also how choices in language frame an issue, thus limiting the possibilities. Thus, an analysis of discourse not only looks at what is said, how it is said, and by whom, but also what is left unsaid and who is excluded from speaking.

From this framework, not only does the presence of climate change have real effects on women’s lives (which we know is in fact a disproportionately negative effect on the lives of women compared to men worldwide), but also the way that women and gender are represented in the discourse of climate change will have material affects on real lives as well. Climate change policy is shaped by discourse, and policy shapes material reality, thus impacting people’s lives.

### **Politics of Climate Change**

Climate change is an area that has been under-researched and under-theorized by feminist scholars. A search in the spring of 2011 for the terms “feminis\*” (to include ‘feminist,’ ‘feminism,’ and ‘feminisms’) and “climate change” in a major academic database (Academic Search Premier/EBSCO Host) yields just 36 results, and nine results if “global warming” is used in place of “climate change.” Nearly a year later, the search still produced only 36 results. (It is important to note here that a special issue of *Hypatia* focused on climate change is forthcoming in 2013, but has not yet been published as of this writing.) Given that climate change and global warming have been topics of international debate and discussion for over twenty years, the amount of attention given to it by feminist scholars and researchers is astonishingly low.

There is a larger body of research focused on women and gender issues in climate change, but this does not have an explicitly feminist focus and is concentrated on the ways in which climate change poses additional challenges to international economic development and aid. This framework reflects liberal ideas of women’s “empowerment” and may be considered feminist by some simply because it acknowledges gender differences in people’s material realities. However, from a transnational feminist perspective, this body of work does not go far enough to address underlying systems of power and inequality.

In the following sections I provide a background on climate change, discuss the current framing of the issue, and review the feminist literature



concerning these frames. I identify gaps in the literature where more feminist-oriented research is needed. In addition, I offer my critique of the literature published thus far on women and climate change.

### **Climate Science**

The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environmental Programme and World Meteorological Organization in 1988 to pool together the science on climate change (Hulme and Mahony, 2010). The panel consists mostly of scholars with geographical expertise and includes a small number of social scientists. The IPCC has been criticized for having verifiable disciplinary, geographic, and gender biases (Hulme and Mahony, 2010). Only 16% of the scientists contributing to the IPCC are women (UNFPA, 2009). Women scientists are severely underrepresented, as are perspectives outside of geography and atmospheric sciences (Hulme and Mahony, 2010; MacGregor, 2009). Given this narrow framing of what constitutes climate science, it is not surprising that the conversation around climate has been narrowly focused around techno-scientific solutions and the social impacts have only recently been examined.

The findings of the IPCC show that the burning of fossil fuels is the major cause of climate change. Since the majority of fossil fuel consumption since the Industrial Age has occurred in the global North, so has the majority of carbon emissions. Historically, the U.S., the nations of the European Union, and Australia

have been the highest emitters of carbon and other greenhouse gases, although China surpasses these countries in current emission levels.

### **Feminist Critiques of Science**

Feminist critiques of science are important to consider in a discussion of women and climate change. Material feminist Stacy Alaimo (2010) considers that:

[a]s the material self cannot be disentangled from networks that are simultaneously economic, political, cultural, scientific, and substantial, what was once the ostensibly bounded human subject find herself in a swirling landscape of uncertainty where practices and actions that were once not even remotely ethical or political matters suddenly become the very stuff of the crises at hand. This is especially evident in the case of global climate change: an individual, household, business, university, city, state, nation, or continent can calculate the carbon footprint left by the stunning range of human activities that emit carbon (p. 20).

Alaimo argues that climate change and environmental health draw humans into acknowledging that they are “the very stuff of the material, emergent world” (p. 20). Therefore, the pursuit of self-knowledge becomes also the “scientific” investigation into our connections through the environment (Alaimo, 2010, p. 20). However, as Alaimo explains, science itself cannot be dependable for this project, with its own biases and incomplete lens.

Indeed, through science we are made aware of climate change in the first place, but also left with far more uncertainties about the ways we will be globally connected and disconnected from each other in the future because of the changes wrought by global climate disturbance.

Sandra Harding (2006; 2008) discusses philosophies of western science and modernity from feminist postcolonial frameworks. She elucidates the

colonialist aspects of the epistemologies of modern Western science and suggests methodological alternatives to reformulate “sciences from below” that ask the question:

What would we learn if we started thinking about [science and technology research] and its effects not from the dominant conceptual frameworks, but rather from the daily lives of those groups forced to live in the shadows of such specters—namely, those who have benefitted least from the advance of modernity’s so-call social progress? (2008, p. 225)

She suggests that science research should begin not from the dominant perspective, nor from women’s perspectives in general (as suggested by much feminist methodology), but specifically from “women’s lives in households” (2008, p. 225). This valuable provocation should be taken into account when considering how methodological choices in climate change research might best serve women.

### **Economic Development and Climate Governance**

Under neoliberal system of world trade and development, extra-national systems of governance have gained extraordinary power over the last half-century (Oatley, 2012). Guided by Eurocentric neoliberal ideologies of hegemonic stability, the colonial powers of Europe and the U.S. continue to dominate world politics and economics through the World Bank, the World Trade Organization, the International Monetary Fund (IMF), and enjoy a disproportionate amount of power within the United Nations (Oatley, 2012). Through these systems, the globalization of free market capitalism has occurred, and continues. Within this

framework, the imminent realities of climate change are framed as a threat to security, both economically and nationally.

According to MacGregor (2009), the “securitizing move has framed the issue in a way that justifies both military responses and exceptional measures that depend on a downgrading of ethical concerns that were once central” to global environmental and social concerns (p. 128). Thus climate change serves as a justification for increased militarization and protectionist measures such as increased border restrictions against climate “refugees”(MacGregor, 2009). The United Nations, in partnerships with the IMF and World Bank, have taken on the issue of climate change as the hegemonic force leading the process of responding to climate change and does so within this securitized framework.

The United Nations Framework Convention on Climate Change (UNFCCC) is a treaty established in 1994 to oversee the negotiation process concerning climate change. Currently, 195 parties are involved in the UNFCCC process (IISD, 2011). The first—and only--legally binding climate agreement between nations, the Kyoto Protocol was adopted in 1997 and currently has 193 parties. It is important to note that neither Australia nor the U.S. ratified the Kyoto Protocol and thus are not legally bound to the agreement. Since then, Conference of the Parties (COP) meetings convene semi-annually to continue discussion and negotiation of this global issue. As in climate science, women are severely underrepresented in policy-making and global governance of climate change. Women make up between eight to 18% of the heads of government in climate

delegations and women's presence at negotiating tables at COP meetings is around 23% (UNFPA, 2009).

In 2010 gendered language was included for the first time in climate change agreement documents. Language concerning gender equality was included a total of seven times in the hundreds of pages of agreements from the 16<sup>th</sup> Conference of the Parties (COP16) in Cancun because of the important advocacy of groups such as GenderCC, The Global Gender and Climate Alliance, Energia, and LIFE. Seven mentions of gender equality was considered an enormous win for those working to bring gender to the center of the UNFCCC process.

The 2010 Cancun Agreements acknowledge climate change as a human rights issue, and the development model sees this as the best way to frame climate change in order to address the social dimensions of the problem:

Noting resolution 10/4 of the United Nations Human Rights Council on human rights and climate change, which recognizes that the adverse effects of climate change have a range of direct and indirect implications for the enjoyment of human rights and the effects of climate change will be felt most acutely by those segments of the population that are already vulnerable owing to geography, gender, age, indigenous or minority status or disability;... (Preamble of Decision 1/CP.16; FCCC/CP/2010/7/Add.1, as quoted in IIED, 2010).

However, as MacKinnon (2006) contends, women have yet to be established as “fully human” in the legal sense and therefore ineligible for protection under international human rights conventions. It remains to be seen how much of a positive impact the human rights framing of climate change will have on gender equity.

### *Women in development*

The vast majority of literature concerning women and climate change is concentrated in the WID field. While many transnational and postcolonial feminists are critical of the Women in Development (WID) approach, my review of the literature reveals that there are also many researchers who espouse a liberal feminist politic who work within the field of WID. Sue Ellen M. Charlton et al. (1989) criticize the WID framework, saying that WID literature is informed largely by ahistorical and descriptive case studies that often are “incidental” to larger studies that have no gender focus whatsoever. Furthermore, they point to a second problem with WID literature:

Inspired (or even financed) by the major national and international development agencies, [WID research] has been captured by the priorities, concepts, and data of nation-states. As Adele Mueller points out, “WID knowledge” has the effect of continuing to conceptualize the Third World in a relationship of dependence with the First World of dominant capitalist countries (p. 7).

Indeed, the gendered aspects of climate change have mostly been discussed in terms of adapting the formal international climate structures and policies to this new global issue, and the need for international economic development projects to incorporate climate and gender into their project plans in order to be successful (profitable). Climate change is seen in this field as a threat to neoliberal global economic development projects and research on women and climate change has mostly centered on the impacts climate change will have on projects that progress the neoliberal model of global economic development. The colonialist assumptions mentioned above by Charlton et al. of these projects are left unchallenged in the

WID literature, and thus unchallenged in most of the literature on climate change found in feminist journals.

Transnational feminist scholars that critique global economic development and WID discourses examine the myths within these discourses. Development discourse perpetuates myths that global capitalist projects sponsored by the World Bank, the International Monetary Fund, and the World Trade Organization will eradicate poverty, empower women, improve health, and raise the standard of living for everyone. Vandana Shiva and Maria Mies (1993) illustrate that the “myth of catching-up development” (that the world’s poor will be able to increase their standard of living to First World standards, and that this would be a linear, evolutionary process) is an ecological impossibility. Similarly, Mohanty (2003) discusses the ways in which development discourse has adopted a universalized view of ‘Third World Women’ who are “assumed to be a coherent group or category prior to their entry into ‘the development process’” (p. 29-30). She also states that a focus on Women in Development tends to reify the object status of women through economic reductionism.

Since the 1970s, gender has been a required component of most economic development projects, but these gendered interventions have done little to actually ameliorate the conditions of impoverishment and the threat of violence for women (e.g., Braidotti, Charkiewicz, Hausler, and Wieringa, 1994; Jahan, 1995). In many cases, women’s impoverishment has increased during the last 50-year period of

globalized neoliberal development. (e.g., Naples and Desai, 2002; Shiva and Mies, 1993).

### ***Mainstreaming gender***

Because the dominant response to climate change has been centered around the scientific and technical aspects, and the techno-economic solutions through existing forces of globalization and economic development, gender has not been a subject of much debate in the UN-lead global decision-making and response process for the majority of the last twenty years. Indeed, UN processes have long produced “bureaucratic incoherence” and a lack of senior leadership on gender issues (Kettel, 2007, p. 871). Despite official agreements to integrate gender awareness and equity into UN processes, this governing body has been disappointingly inadequate in doing so.

Gender “mainstreaming” is a common and accepted concept in development literature. However, little question is raised about exactly what powerful current “gender” (which in this body of literature is conflated to mean *women*) is being carried into and if that current is actually beneficial to women. Papers such as “Gender and Climate Finance: Double Mainstreaming for Sustainable Development” (Schalatek, 2009) published by the Heinrich Boell Foundation North America, suggest that as long as international development meets the needs of the current generation without compromising the future generations ability to meet their own needs, and does gender-specific project implementation in the Global South, gender equity, social, and environmental



justice will be achieved. The concept of “double mainstreaming” suggests that in order for international economic development to be successful and “equitable,” both women and climate change are aspects that need to be addressed.

However, some researchers have begun to look at whether “win-win” scenarios designed to address gender equity by implementing sustainable, or green, technologies for use by women in a development project, are actually helpful to women. Wong (2009) found that a solar-powered lighting project in India only served to lengthen women’s workdays as the indoor lighting meant that they were then pressured to work on handiwork until nearly midnight. However, this kind of project is portrayed as a double success in WID literature because it counts as both a climate mitigation project and a gender-equity microcredit project.

The Boell Foundation recommends that we, “shift the focus of the global discussion on climate change away from a primarily technocratic exercise to one employing the language of global justice and human rights, including the right to development and gender equity” (Schalatek, 2009, p. 6). From a transnational perspective, this rhetoric of the “right to development” as a human right has little to do with gender equity and is more concerned with the neoliberal idea that “freedom” means the freedom to consume and “human rights” refers to the project of getting all humans, including women, to participate as workers and consumers in the globalized economy.

### **Proposed Solutions and Technologies**

Much of what little focus there is on women and climate change is on seeking ways to improve development projects by taking into account the new factor of global climate change and instability and creating gender-appropriate technological solutions to reducing carbon emissions as well as creating gender-specific climate-friendly technologies for use and implementation in global development projects.

### ***International climate finance***

A major focus of the UNFCCC process is to develop financial mechanisms for addressing climate change. Climate finance is designed in three main ways: mitigation (clean technologies), adaptation (climate resilience), and REDD (reforest programs) (Schalatek, 2009). The “Bali Roadmap,” created at COP13 in 2007, established the focus on mitigation, adaptation, finance, and technology as key elements of the COP process (IISD, 2011). Only since 2009 have any of these three areas incorporated plans for addressing gender equity into their projects (Schalatek, 2009). The COP15 meeting in Copenhagen in 2009 led to a promise of US\$10 billion a year from wealthy nations for climate finance until 2012, and then increasing to \$100 billion by 2020 (IIED, 2010). Following these agreements, the details of how this financing would be negotiated were contentious: Would this financing be provided with or without interest? Would it be *funding* or *financing*? However, according to the International Institute for Environment and Development (IIED),

The [Copenhagen] Accord is unclear on whether the promised new climate finance includes mostly grants, or also a major fraction of loans... Will traditional official development assistance (ODA) accounting rules apply, where the full amount is counted when it is dispersed, but then accounts to zero once fully paid back? Most analyses use only the 'commitment,' and do not subtract the repayments. The risk is that by counting loans as part of climate finance, what is actually being counted is funds that flow back to lenders (2010, p. 3).

While the Cancun Agreements of 2010 broke new ground in their official acknowledgement of gender issues, the problem that stands in the way of achieving gender equality in climate mitigation and adaptation is the way climate finance is being negotiated. The 2010 Cancun Agreements established a Green Climate Fund (GCF) that would be designed by a Transitional Committee (TC) to provide up to \$100 billion per year to developing countries by 2020 (Women's Environment and Development Organization [WEDO], 2011).

However, with the establishment of a new branch of authority in the formal climate arena, gender disappeared from the dialogue of the TC. Leading up to COP17, once again the dialogue and planning of the Green Climate Fund became narrowly focused on the technical aspects of the project, not the social aspects, and the TC was composed of finance ministers, causing a lack of focus on the social aspects of climate change (WEDO, 2011). Furthermore, the TC negotiations were held outside of the COP meetings, which meant that those social advocates who had been lobbying the climate process for years were shut out of the process of defining the financial mechanisms, through which mitigation and adaptation projects would be designed and funded.

Unfortunately, GenderCC and other groups advocating for women in the COP process were disappointed with the Green Climate Fund outcomes of the 2011 COP17 meeting in Durban. Gender was acknowledged only four times in the report of the TC to the COP17 meeting, and overall, GenderCC characterized COP17 as a “breakdown, not a breakthrough”:

From our point of view, the enthusiastic reaction of some media to the Durban outcome (referring to it as a “breakthrough”) is not warranted.

Yes, a second commitment period of the Kyoto Protocol has been adopted, but it covers only a relatively small fraction of current global emissions, with Canada formally stepping back from the Protocol, the US having never stepped in, and Russia, Japan and Australia rejecting the second commitment period. Moreover, the targets of the remaining 'Kyoto club' are not yet clear and have to be submitted during the coming months.

Yes, an “Ad Hoc Working Group on the Durban Platform for Enhanced Action” has been established to adopt a legal agreement by 2015 at the latest. But hasn't the AWG-LCA had more or less the same task? And this new broad agreement won't enter into force before 2020! Yes, the Green Climate Funds's basic design has been adopted. But who will fill it?

Yes, 'gender' is still mentioned in the AWG-LCA documents, but it has been removed from the text on shared vision. Ultimately, we consider the Durban outcomes a breakdown, not a breakthrough. (Gender CC, 2011)

The Green Climate Fund continues to be designed as of this writing and final agreement on the design, management, and capitalization of the fund is set for COP18 in late 2012 (IISD, 2011).

### ***Mitigation and adaptation projects***

Mitigation focuses on reducing carbon dioxide emissions so that the speed of climate change is slowed. Through highly profitable, highly technical solutions such as carbon offset and trading, carbon sequestration, patented climate-adaptive

genetically-modified crops, and carbon capture and storage, mitigation is also the process by which carbon emissions are integrated into the global market and traded between nations as a commodity (MacGregor, 2009). This enables countries to sell their excess carbon credits to other countries just as with any other surplus good. Adaptation projects compose the other set of climate solutions offered through the UNFCCC. These projects are funded by developed nations and implemented in less developed and least developed nations to ameliorate the negative effects of climate change they will soon be (or already are) experiencing such as severe weather, rising sea levels, and increases of severe droughts and flooding.

In her discussion of the research she conducted at the Noel Kempff project in Bolivia, one of the largest REDD (forest-based carbon emissions mitigation) projects, Emily Boyd (2002) notes that every level of decision-making in the official structures of climate change is male-dominated and operates under the masculine assumptions of a scientifically and economically Western worldview. “When we discuss global carbon-trading by planting or conserving trees, we are engaging in a debate driven by men, who are biased towards providing technical solutions to the climate-change problem” (Boyd, 2002, p. 70). Boyd cites Vandana Shiva’s discussion (1988) of *prakriti*, or ‘the feminine principle’ as a life-affirming theoretical alternative to the scientific technical-affirming paradigm under which climate change currently operates.

Several authors employ a similar frame as Boyd, wherein Western economics and science are coded masculine and a more collective, earth-friendly and alternative response is coded feminine. Empowerment rhetoric is also commonly used within this frame. Empowerment for women in this context seems to imply embracing a semi-mystical power they possess simply because they are females. While I do not doubt that we as humans may have access to more power than we realize on a daily basis, I do not believe that framing the issue of climate change response in this essentializing way is helpful in terms of political strategy at this time and in this context. Empowering women to claim the power in their femininity in the face of globalization and climate change maintains a focus on the individual and obscures the structural influences on why women are disempowered. Framing the issues and the changes that need to occur as primarily a masculine versus feminine issue will not be successful in addressing the layers of marginalization occurring for women and men under the economic and political structures of global capital. Additionally, this strategy teeters on further essentializing women's connection to nature and men's connection to power. A better approach would be to recenter *all* humans' connection and responsibility to the natural world instead of empowering only one gender to be responsible for and connected to the natural world.

As several researchers have pointed out (Boyd, 2002; Wong, 2009) climate mitigation projects from the West that have incorporated elements of women's empowerment and decision-making as part of the solution to social inequality have

largely failed. “Researchers are pre-occupied with women’s lives, without taking a wider perspective of how social structures shape gender relations. There is also a danger of portraying all women as victims and all men as perpetrators, and of considering women, as well as men, as a homogenous group” (Wong, 2009, p. 103-104). It is troubling to see that even for those operating within the economic development framework, successful projects are rare. This suggests that the current approach needs to be reconsidered.

### ***Population control and family planning***

A popular solution to climate change points to the world’s growing population as the problem. Supporters of population control suggest that since increased population increases carbon emissions, and since population growth now occurs far more in developing and least-developed countries at higher rates than in developed countries, encouraging women in these countries to use contraceptives and family planning to lower the birth rate is an essential part of the climate change solution. This is a particularly disturbing aspect of the climate change discourse, as it is aimed at encouraging only certain women to stop having babies, while fertility and overconsumption of fossil fuels in the West (think ‘soccer moms’ in minivans) is not included as part of the problem.

Feminists have problematized this link between population growth and environmental degradation for some time (e.g., Silliman and King, 1999). In a more recent writing, Betsy Hartmann (2009) argues that this population control approach is based on racism. She succinctly demonstrates the way the Zero

Population Growth movement is a new incarnation of the old racist colonial project of controlling the fertility of women of color, disguised as liberation and empowerment through family planning and access to contraceptives. She explains:

Retro racism and sexism are back in vogue, but now with a bit of a faux feminist twist. Along with the bad news that women's fertility is destroying the planet comes the good news that family planning is the solution. In other words, you don't have to feel guilty about blaming poor women for the world's problems because you can help them improve their lives by having fewer babies (2009, n.p.).

Controlling the fertility of women of color has always been a colonial project and the focus on contraceptive access as a solution to climate change brings this colonial legacy with us into the twenty first century and maps old and tired power structures onto a problem that has the potential of uniting us as a globe if we choose to take it as that.

***A “different mode of humanity”***

Another vein of proposed solutions offered in the literature suggests that a complete paradigm shift is required if climate change is to be addressed to the degree sufficient to avoid global calamity and climate chaos. Australian feminist geographers J.K. Gibson-Graham (2011) (two authors writing as one) recently published an article outlining new directions for human understanding of place and belonging in the face of climate change and the current geological epoch. This new geologic time has been labeled the Anthropocene because of its unique characteristic of human-induced geological and geographical change. They call for a feminist post-capitalist “different mode of humanity” based on a “potential global compass of a new discourse of ‘belonging’ linked to a more-than-human



regional development imaginary” (Gibson-Graham, 2011, p. 5). This unknown imaginary future they term “adventures in living” in their article. This stance of climate change as an “adventure” could only be conceived by feminists in the West who are buffered economically, geographically, and politically from the actual effects of global climate chaos. How should the women who do not have the material luxury of “adventuring” because they are busy trying to survive the effects of globalization and climate change participate in this new mode of humanity? While perhaps coming from an unacknowledged perspective that I have come to term climate privilege, Gibson-Graham nevertheless offer a starting place for these new conceptual frameworks.

They explain that they “have come to see that the scale of the environmental crisis we are part of is creating a new ‘we’ and convening new publics on this planet...In this diverse multiplicity we find glimmers of the future, existing economic forms and practices that can be enrolled in constructing a new economy here and now, one that is more focused on social wellbeing and less on growth and profitability” (Gibson-Graham, 2011, p. 1, 2). The “different mode of humanity” they call for is somewhat reminiscent of ecofeminist paradigms grounded in connection to nature and valuing life over technology and economic progress. Gibson-Graham’s research on the layering of radical economic heterogeneity of capitalist and non-capitalist enterprises in the same geographic place is an exciting new area in feminist research on climate change.

### **The Need for Further Feminist-Oriented Research**

Based on my review of the feminist literature on climate change, I concur with MacGregor (2009) that the ways climate change is framed and addressed reflect a masculinized appropriation of the issue. In other words, I argue that framing the issue as a techno-scientific problem places it in the male-dominated realms of science and international development and the proposed solutions that arise from this frame reflect values and priorities of traditional western hegemonic masculinity. Thus, further feminist attention to climate change is needed in order to intervene in these frames and bring more diverse perspectives and theories to the issue.

## **Using Social Media for Discourse Research**

In this chapter I provide a brief review of the literature on the role of new social media and Web 2.0 technologies in social, environmental, and political movements. In addition, I examine the current debates about using social media for research and related current methodological debates and issues. I then explain the use of Twitter in my method of discourse analysis and conclude by examining the limitations of my study.

### **Examining Internet and Social Media Discourses**

There is a growing body of literature that explores the importance of social media in society at large, and more recently their role in citizen uprisings in the Middle East and other global justice movements. Langmann (2005) states that since the early 1990s “the electronic networks that made contemporary globalization possible also led to the emergence of “virtual public spheres” and, in turn “Internetworked Social Movements” (p. 42). While traditional social movement theory still provides valuable insights to local structures and political opportunities, Langman contends that “[w]e need to examine the unique aspects of globalization that prompt such [internetworked] mobilizations, as well as their democratic methods of participatory organization and clever use of electronic media” (p. 42). She states that “[t]he rise of the Internet, as new communication media, has enabled new means of transmitting information and communication that has in turn enabled new kinds of communities and identities to develop. These new kinds of Internet-based social movements, cyberactivism, are fundamentally

new and require new kinds of theorization” (Langman, 2005, p. 44). Langman argues the global justice movements could not exist outside of/without the Internet. The Internet’s unique qualities allow for “rich possibilities for democratic interaction” (p.44).

In contrast, Malcolm Gladwell wrote an op-ed column in the New Yorker in October 2010 expressing that he was critical of online social media activism having any real measurable impact on the ground. In response, Noorin Ladhani (2011a) argues that, “The objectives of online social activism are not the same as the type of activism found at a protest or sit-in...Instead, it needs to be considered and evaluated as a vehicle for free speech, information sharing, and online organizing” (p. 57). While Ladhani agrees with Gladwell that the role of social media in current political revolutions has been overstated in popular media, this does not mean that its role should be altogether dismissed. Rather, she argues that social media needs to be understood as a “tool for change rather than the tool that will change the world” (2011a, p. 57).

### **New Social Media and Social Research**

The potential of these media as tools for social research is currently a topic of great debate. In his analysis of the comments section on an article he wrote about climate change and environmental sustainability, Barr (2010) concludes that the Internet:

provides both opportunities and challenges to researchers seeking to explore social issues in virtual communities and their meaning for contemporary politics. The challenges are complex, but as virtual communities of practice develop, social researchers will need to

adopt methods that can interpret both the discourses that emerge and their wider socio-political impacts (p. 21).

Researchers agree that social media and micro-blogging has created a genre of discourse that is underresearched. Barr states that there are both opportunities and challenges for social researchers in using methods that engage with the Internet as a site for observational research, but doing so is necessary as it can uncover “discourses that may remain hidden through conventional forms of primary research” (2010, p. 20). He argues that “[e]nvironmental social scientists need to become aware of the potential for analyzing virtual discussion forums and social networking sites as valuable data sources for their research, recognizing that these represent both cultural artefacts [sic] in their own right and alternative sites of discursive practice for anonymous and immediate everyday talk” (Barr, 2010, 14). The field of new social media research is still very new and there are many challenges and methodological questions left to be addressed. Thus far, researchers find engaging with such methods fruitful in providing new insights as well as challenging and at times frustrating.

### ***Twitter and social research***

Debate around Twitter appears in social research literature in two categories. First, Twitter is examined as the subject of the research and secondly Twitter is examined as a methodological tool in the service of studying society and culture at large. In the first category, researchers from multiple disciplines such as political science and linguistics look at how Twitter is used by certain groups of people for specific purposes. In the second focus of the literature, the potential of

Twitter as a source of new information about larger social contexts and communities is examined and debated. I will examine both areas of literature in the next section.

### *The role of Twitter in social movements*

The way people use Twitter.com is the subject of some debate in the academic literature, and this debate has been spurred by several factors. Claims in popular media that Twitter was instrumental in the revolutionary uprisings in the Middle East starting in 2010, collectively referred to as the “Arab Spring,” spurred particular interest in the role of Twitter in social and political movements. Academic literature on this and other uses of Twitter will be discussed in this section.

The lack of academic research on new social media and its role in political movement contributed to the overgeneralization of Twitter’s role and a polarization of views on the subject into what Christensen (2011) identified as techno-utopianism and techno-dystopianism, wherein Twitter was either seen as causing the political revolutions, or Twitter was seen as stifling political activists through state surveillance of their online organizing. However, neither of these dichotomous theoretical frameworks for viewing how Twitter (and the Internet in general) functions measure up to what the research since 2009 shows:

[W]hile techno-utopians overstate the affordances of new technologies (what these technologies can give us) and understate the material conditions of their use (e.g., how factors such as gender or economics can affect access), techno-dystopians do the reverse, misinterpreting a lack of results (such as the failure of the Iranian protesters to topple the Ahmadinejad regime) with the impotence of

technology; and, also, forgetting how shifts within the realm of mediated political communication can be incremental rather than seismic in nature (Christensen, 2011, p. 239).

Rather, the value of Twitter, as Ladhani (2011) explains, is that it “allows for a documented public record in viral 140-character statements” (p. 57). She states, “The strength of Twitter as a tool to share information really stands out in situations like this [large international meeting]” (p. 57). Several other researchers (DeVoe, 2010; Ovadia, 2009) have explored the ways in which Twitter is used for large meetings, but also in the context of large groups of people seeking or sharing information about one specific event. For large global meetings such as the G20 meetings, or COP15 in Copenhagen, traditional media coverage of these events is comprehensive, but according to Ladhani (2011) and DeVoe (2010), activists and advocates know that the best updates came from reporters and bloggers who posted entries on their personal professional Twitter accounts from the ground at the meetings. The literature suggests that this use of Twitter is particularly popular and useful for disseminating information and organizing around a specific topic and event.

### ***Twitter as a methodological tool***

Starting in 2009, scholars of library studies began exploring the potential use of Twitter as a resource for research (DeVoe, 2010; Emery, 2009; Forrester, 2011; Ovadia, 2009). These articles provide general information about how Twitter functions and its potential as a research tool. These exploratory articles were written with other disciplines in mind as well, including environmental

sciences (Clark, 2009), political science (Small, 2011), biosciences (Ben-Ari, 2009), and behavioral and social sciences (Ovadia, 2009). This breadth of disciplinary interest in Twitter as a research tool speaks to many scholars recognizing its methodological potential as well as the need for more research on how to best conduct research using Twitter. Despite the cross-disciplinary nature of this body of literature, there is consensus among these authors that Twitter does have value as a research tool for particular questions about social movements. Namely, Twitter is helpful in discerning what people are saying and thinking about a particular topic or event at a particular time in history.

Another point of consensus is that Twitter must be understood as a “window” onto a larger social frame and cannot be assumed to stand in for an entire social movement (Segeberg and Bennett, 2011). This is the conclusion that came out of the debates around whether the uprisings in the middle East could actually be deemed “Twitter revolutions” with any accuracy. As Morosov (2009) puts it, “[u]nderstanding how the Internet fits a particular political and social environment is one of the most intellectually challenging tasks...in the next decade” (p. 14). He continues by saying that “getting realistic about what the Internet can and cannot do” is an essential step that follows acknowledging that the Internet does in fact influence our social reality (Morozov, 2009, p.14). Along with other researchers, Morozov argues that more research needs to be done in order to better articulate the fine line between conjecture about Internet causation of social



change in material reality and underestimating the Internet's influence on social and political change.

### *Conventions of Twitter language*

A “tweet” is a single entry on Twitter that is limited to 140 characters or less. Twitter uses several symbols for communicating in this space-limited format, and so Twitter language requires some deciphering. There are several standard conventions used on Twitter that enable, in 140 characters, a surprisingly rich amount of communication to occur. Here I will discuss hashtags, “@ mentions.” and “retweets.”

Events such as a large conference will often have a hashtag (a keyword with the “#” symbol in front of it) associated with them so that users can “follow” the hashtag instead of individual people's profiles. Thus, a hashtag is an easy way to follow the thread of conversation about a certain topic, denoted by the key word. An example of this would be the use of “#COP17” on Twitter to indicate that what is being tweeted is related to COP17 or would be of interest to participants of the conference as well as those who want to follow the proceedings of the conference from a distance. Hashtags in tweets are also searchable from outside of Twitter, such as in a Google search.

The “@” symbol is used in front of a users profile name in a tweet to indicate that the tweet is referencing the user, or is a direct response to that user. It is a way to let the user know that another user is responding to something they posted, or is publishing a tweet that directly relates to the mentioned user. “@

mentions” are publicly visible and may be directed toward a general audience, but the “@username” convention is used to make sure that a certain user is aware that the tweet was posted. This is similar to posting on someone’s Facebook wall, rather than sending them a private message. It is a public statement, but directed toward a specific individual or organization.

Copying another users tweet and sharing it under one’s own profile is called “retweeting” and is indicated by the addition of “RT” at the beginning of the tweet. Retweeting functions as a form of engagement with the original user who posted the tweet, as well as one’s own “followers” or anyone following the feed of any hashtag that might be included in the retweet (Zappavigna, 2011).

Retweeting is a way of saying something along the lines of “Hey, someone else shared this and I think it is important, too. I think others might find it interesting/useful/important so I’m repeating it.”

These conventions make Twitter a site where “community-driven” public conversations occur which are “multiparty, temporarily fluid and highly intertextual” (Zappavigna, 2011, p. 790). The fluidity and intertextuality of the conversations that occur on Twitter make it possible to have complex forms of interaction and communication despite the space limits placed upon tweets. I would argue that the space limitations make for interesting use of language beyond the creative use of symbols such as @, # and RT. In only having 140 characters to say something, users may be motivated to convey the most powerful messages with the shortest amount of words.

### *The Case for Twitter*

Based on the existing literature on the role of social media and other forms of social organization in cyberspace, the Internet is not just an “additional” for research, but rather a site that “constitutes its own communities of practice, each imbued with ‘culturally located experience’ and with the potential to create new political realities outside of this virtual world” (Barr, 2010, p. 20). Data collection from blogs and discussion forums, and social media sites can be seen as a new ethnomethodological approach (Barr, 2010). Indeed, Twitter and similar social media cause an expansion of our understanding of discourse, demanding that discursive practices within new social media be examined. It is imperative that we explore new forms of discourse such as Twitter to understand the way these forms of discourse function in relation to larger political, economic, and social context. In this century, the new ways the social context and discourse construct each other will be one of the challenges for researchers to understand in relation to social movements and social media.

### **Discourse and Frame Analysis**

Discourse analysis studies naturally occurring interactions or communication and involves analyzing the texts related to those interactions into categories and themes, based on the research topic in question (Bernard, 2006). Two elements of discourse analysis are particularly relevant to my research question: identifying the social context in which the naturally occurring text is embedded, and analyzing structures of power associated with that context.

As stated in my introduction, “discursive frames limit what can be discussed or heard in a political context and are not tied necessarily to particular organizations” (Naples, 2003, p. 9). Language reveals power, and a study of discourse is concerned not only with uses of language in itself, but also how choices in language frame an issue, thus limiting the possibilities for how the issue will be addressed. Discourse could be seen as the filter on a camera lens, in that the particular quality of the filter (a red color filter, for instance) has a particular effect on how things are seen. The image produced with a red filter will present a particular view of the world, and if a different filter were used (a green filter, for instance), a slightly different image would be seen. Naples argues that discourse analysis allows us to see how “social policies are constituted in discourse and formalized in legislation which, in turn, shape the possibilities for implementation” (p. 10). The way an issue is framed in discourse has implications for policy and the material reality of people’s lives.

A subgenre of discourse analysis that I am particularly interested in is framing analysis. Framing analysis, originally developed by Goffman (1974), focuses on “how social actors use language—inclusive of rhetoric, metaphors, and storylines—to mobilize key stakeholders, attempt to build a broad public consensus around a course of action, and focus sustained media attention on a specific issue” (Fletcher, 2009, p. 801). Fletcher continues, “in contrast to methods that either bracket language as epiphenomena or assume that the relationship between language and reality is stable,” frame analysis “widens the scope” of what

researchers studying policy and other texts can contribute to our understandings of a complex issue such as climate change (2009, p. 801).

I use the terms “discourse” and “frames” interchangeably in this thesis, as the frame of a discourse describes the limit of its scope and delineates what is within a particular discourse and what is outside the frame. Thus, the frame is part of the discourse; the frame is its outer border, much like the way the lens of a camera frames the shot and places limits on the visual field, and its function is to center the focus in a particular way. Within the frame of climate change discourse, I am specifically examining how women are represented, and if the category of “women” has a function in the framing of climate change.

### **Data Collection**

A major critique levied against discourse analysis is that the approach is strongly rooted in postmodernism, and as such, lacks a clear method of data collection and analysis (Graham, 2011). Discourse analysis has, to some, become an ambiguous term that holds no methodological weight because its “postmodernness” resists the formalization of method. However, I feel that a grounded theory approach is well suited to analyzing data in relation to my research question. Grounded theory, originally developed by Glaser and Strauss (1967) and Strauss and Corbin (1990) is a method of analyzing data that allows themes, and theory, to emerge from the data themselves. The goal of a grounded theory approach is to generate substantive theory that is grounded in the data and “accounts for a particular phenomenon, defined in temporal and spatial terms” and is an inductive

approach to data analysis. Rather than hypothesizing about what sorts of representations of women exist in the data, I approach the analysis without preconceptions of what will be found. Dey (1999) makes a clear distinction between *prior conception* based in “theoretical sensitivity” versus having *preconceived notions* about the data, which requires a deductive approach to analysis, and would be the realm of content analysis if we are speaking about ways to analyze text. In grounded theory, the researcher’s conceptions of the overarching issue and existing theoretical and empirical knowledge are acknowledged as an essential part of conducting research, but the researcher does not allow herself to make preconceived judgments about what the data will reveal; grounded theory is a way to “allow understanding of the issue to emerge from close study of the text” (Bernard, 2006, p. 493) and is a common approach in sociological and anthropological research.

This research explores representations of women in the framing of climate change discourse. The relatively new realm of blogging and web-based citizen journalism adds another dimension to discourse analysis, which is essential to understanding how discourse as a whole operates in our current world system.

Twitter.com was used as a tool by many stakeholders around the time of COP17, both by attendees in Durban and people around the world who wanted up to the minute information about the issues and proceedings from the meeting. While the users of Twitter do not represent all contributors to the discourse on climate change and climate justice, its characteristic as a user-generated news

service where each user--whether a NGO, an individual in South Africa, India, the U.S., or the UK, or a head of state--has equal access to contributing to the discourse in 140 characters or less, creates a corpus of text with several unique qualities that differ from traditional sources of text for the study of discourse.

My thesis research examines representations of women in relation to climate change and overarching power structures on the microblogging site Twitter around the time of the UNFCCC COP17 meeting in Durban, South Africa in the late fall of 2011. For my preliminary research into the discursive framing of women and climate change, I conducted a search on Twitter for tweets that contained both “feminism” and “climate change” and received zero results. Nor did any results arise from a search of “feminist” and “climate change.” I then conducted a search of the terms “women” and “gender” in relation to climate change and these search terms produced a “twitter feed,” meaning that Twitter aggregated all the tweets that contained “women” and “climate change” and “gender” and “climate change” that had been tweeted in the previous fourteen days since the time of my search query. In order to gain understanding of the broader ways Twitter was being used in relation to discussing climate change, I gathered the feeds from the following seventeen search terms. The feeds for each of these search terms were collected beginning in September and continued through the end of December.

Owing to this broader preliminary research, I was able to discern that some search terms, such as #climategender, came into use after I began collecting data in

September, and I then began to collect these feeds as well. As a general rule, I gathered terms with a hashtag and without, but some terms did not produce any results if the hashtag was included. As an example, the hashtag #climategender was only used during COP17 and produced no search results for date ranges before or after COP17.

**Table 1: Search terms for preliminary exploration of climate change discourse on Twitter September-December 2011.**

Climate women	#climatewomen	Global warming	#globalwarming
Climate gender	#climategender	COP 17	#COP17
Climate justice	#climatejustice	Climate	#climate
Climate change	#climatechange	Green Climate Fund	#greenclimatefund
#occupyCOP17			

Tweets containing the terms #globalwarming and global warming were collected at the beginning of my research. However, it became clear from the data that the discourse around “global warming” has a different focus than the discourse around “climate change.” The term “global warming” is much more commonly used in conjunction with attitudes of dismissal, humor, disbelief, skepticism, cynicism, and the downplaying of a serious environmental issue that requires serious and immediate action. Tweets containing the words “climate change” tend to be much more in line with the focus of this thesis than those containing “global warming,” and this trend is confirmed by Schuldt, Konrath, and Schwarz (2011). In order to limit the scale and scope of this research, I have



omitted “global warming” from my analysis and focused solely on the results obtained through searching terms related to “climate change.”

For my final analysis of the representation of women in climate change discourse on Twitter, I narrowed my focus onto the publicly available tweets around climate change and women to the following four search terms: #climatewomen, #climategender, women climate, and gender climate. From my initial data collection, I surmised that these were the terms that produced any notable quantity of tweets that related to women and climate change.

Three date ranges were selected for my final sample: a two-week time period ending two weeks prior to the start of COP17 (12am PST October 31, 2011-12am November 12, 2011), the duration of COP17 (12am PST November 28, 2011-12am December 10, 2011), and a two-week time period beginning two weeks after the end of the COP17 meeting (12am PST December 26, 2011-12am January 7, 2012). These separate two-week time periods were selected in an attempt to cover a broader amount of time than would have been possible if creating a sample from one continuous chronological time period, while at the same time, seeking to maintain contiguous segments of time in order to preserve the conversational elements of a real-time Twitter feed.

**Table 2: Date Ranges in Sample**

Sample Date Range	Begin Date (begins 12am)	End Date (ends 12am)	Reference
1	10/31/11	11/12/11	Before COP 17
2	11/28/11	12/10/11	During COP 17
3	12/26/11	1/7/11	After COP 17

The four twitter feeds were gathered for each of these date ranges using Topsy.com, which is a platform that indexes content from social media sites and allows for advanced searches of these data sets. The search was conducted by ‘relevance’ as defined by Topsy.com (contains a link or is retweeted by someone else) rather than by chronological order. For example, during COP17 there were roughly 2,000 (1,954) tweets created that contained the words “women” and “climate.” I included in my corpus the first 200 of those tweets from the list sorted by relevance, as defined by Topsy.com. This ensured that I had a representative sample of the most popular tweets within the specified date range. My sample for text analysis consists of roughly the 10% “most relevant” of the total tweets for each search term within each date range, except for instances where the total number of tweets was small enough that I could include them all in my sample.

**Table 3: Distribution of tweets per search term in sample**

# in sample	women climate	gender climate	#climatewomen	#climategender
Date Range 1	52	10	10	0
Date Range 2	200	50	20	10
Date Range 3	24	10	8	0

A total of 394 tweets were analyzed for representations of women and metaphor usage related to how climate change impacts women’s lives. Many tweets contained a link to a website or article outside of Twitter, and the same links were shared in multiple tweets by different users. The most frequently linked articles and websites were also included in my analysis, and appear in Appendix B.

### **Data Analysis**

I examined the data for themes relating to my questions about representations of women in the discourse on climate change. The first step of my analysis was to analyze each tweet in my sample for representations of women, metaphor usage, and construction of the “climate change problem.” Recurring themes and metaphors emerged and were strengthened as I continued my analysis of the tweets. Categories of themes emerged, which I then checked and tested the validity of when coding the text from the most frequently hyperlinked websites.

### **Methodological Limitations**

It is clear that dependence upon the Internet for the data in this study limits the discourse and excludes the voices of those who do not have access to the

Internet, those who do not use the Internet in English, and those who do not use Twitter. Many Internet researchers recognize that international demographic statistics of Twitter users are largely lacking; we are just beginning to track who uses twitter, how they use it, and for what purposes (Burcher, 2010; Mislove, Lehmann, Ahn, Onnela, and Rosenquist, 2011). Some of what we do know is that one billion tweets are sent every week from 106 million total users, 61% of tweets are written in English, 33.3% of Twitter site traffic comes from the U.S., yet 60% of Twitter users are outside the U.S. (Gervai, 2011; Burcher, 2010.) We also know that within the U.S., 13% of adults who are online use Twitter, and non-white Internet users are on Twitter at higher rates than their white counterparts (Smith, 2011.) Smith found that 25% of African American and 19% of Latinos/Latinas who use the Internet also use Twitter, compared to nine percent of white Internet users. Smith also found that in the last year, Twitter use within the U.S. has doubled among older adults Internet users (30-49 year olds) from seven percent to 14%, while the rate of use among the youngest adults (18-24 year olds) has remained steady at about 18%. Use among the oldest age groups (55-64 year olds and over 65 years old) has also increased from four percent to eight percent and six percent, respectively (Smith, 2011).

Thus, this analysis does not contend to encompass all stakeholders within the discourse on climate change because, as a global crisis, I recognize every living creature on the planet as a stakeholder in climate change discourse. While Twitter is ranked 9<sup>th</sup> in the world's most trafficked sites by Google.com (Gervai,

2011) and has somewhat unique demographics as a social media and status update service, many voices are left unheard.

In addition, when examining the issue of climate change, it is important to acknowledge the energy consumption and resultant carbon footprint required for the Internet to exist. While I mentioned in my introduction that I chose a research method that would not require air travel to COP17 in South Africa, my research method was not without environmental impact. It is important for researchers to consider how the ways in which they conduct research contribute to environmental problems.

Furthermore, the tweets in my sample represent only English-language discourse. Twitter, and the Internet in general, is available (to varying degrees and to varying segments of the population) around the world in multiple languages. A multilingual approach to discourse analysis would provide a much richer portrait of the global conversation around climate change, but is beyond the scope of this project.

While media researchers are beginning to explore the potential of social media as a research tool, some limitations of these media are already clear. For instance, Twitter data is “noisy” and the intended meaning of words is not always simple to understand (Savage, 2011). On the other hand, as Savage argues, with so many messages, statistical errors tend to shrink. There is also an implicit bias in using Twitter, in that certain segments of the population use Twitter more than others (Savage, 2011). However, studying tweets that people send out of their own

accord eliminates some of the problems associated with word choice in traditional survey instruments (Savage, 2011).

As mentioned in my introduction, the ways in which social media was said to have a large impact on major social uprisings in the last few years prompted my examination of Twitter as an avenue for discourse analysis. More research on how to most effectively use social media in research will help to develop our intellectual understandings of how these media influence our world. Ultimately, it should be remembered that this methodological approach produces indications of the larger discourse, acting much like a window, and does not purport to constitute the entirety of how women are represented in relation to climate change discourse.

### **Women's Representation in Climate Change Discourse**

In this chapter, the representations of women in climate change discourse as found on Twitter are presented. First, I discuss the profiles of users who tweeted about women and climate change, paying particular attention to the kinds of users (business, non-governmental organization, individual, etc.) and the geographical location associated with the user profiles. Second, I present my findings on the ways people use Twitter and in what context they are tweeting about climate change. Finally, I present the themes and emergent metaphors found from coding the corpus of tweets. I end this chapter with remarks regarding the marginalization of women as a topic in the larger discourse on climate change and my prediction of an increase in the *discursive feminization of climate change*.

Within each theme found in the data, I examine my findings in relation to my original research questions and the existing literature on women and climate change. I review the findings that fall in line with existing literature about women and climate change as well as discuss the contributions to the literature that this research has made, namely, problematizing the notion of climate change as a perpetrator of violence against women, and questioning the placement of heroic responsibility on the world's disenfranchised women as a solution to climate change.

### **Voices in Climate Change Discourse**

My sample consists of 278 separate publicly available Twitter accounts represented (See Appendix A). These accounts were attributed to individuals,

news services, international and national governing bodies such as the UN, NGOs, businesses, as well as several accounts that were unspecified.

### ***Organizations***

Based on the profile information provided by the user, I coded the Twitter accounts in my sample as Non-Governmental Organizations (NGOs), state and UN organizations, businesses, news organizations, other organizations (e.g., automated aggregate news blogs), or individuals. Twenty two per cent of accounts were associated with NGOs, 4% were from state or UN organizations, 15% were official news organizations, and other types of organizations made up 7% of the accounts.

### ***Individuals***

Thirty eight per cent of the twitter accounts in my sample were attributed to individuals. Based on users' profile descriptions, the majority of individuals using Twitter as platform to discuss women and climate change work in WID or international aid. Many are associated professionally with one or more of the NGOs that were included in my sample. By stating a phrase such as "views are my own" on their profiles, these individuals indicated that while their agency used Twitter, they created an individual profile on which to more freely share their thoughts on issues without officially representing an organization. Because I am interested in the potential of Twitter as a discursive platform that allows for the inclusion of a greater multiplicity of voices, I take particular note in my analysis of the ways individual users engage with climate change discourse.



While a gender analysis of Twitter users would be an interesting study, there is not enough reliable data available in the Twitter profiles to make such an analysis accurate. Providing profile information is voluntary and there is no requirement to disclose one's gender in one's profile. Doing such an analysis would require survey data of the individuals who initiated the Twitter profiles, which is beyond the scope of this research. The same is true for an analysis of the race of the individuals tweeting about women and climate change; there is insufficient data contained in the Twitter profiles to make any claims without conjecture.

### ***Geography***

Twitter provides the option of including geographic information in user profiles, and I analyze user locations in my sample. Nine per cent were designated as global and 16.5% of the accounts had no geographic designation. Out of thirty countries of origin that were specified, the greatest proportions of accounts originated from the U.S. (30%), the UK (6.1%), Canada (5.3%), and Australia (3.5%). Most of the other countries out of the 30 total had only one or two accounts (less than 1%) associated with them, with the exception of The Netherlands (5), Italy (4), France (3), South Africa (7), and Kenya (4). The two most common account types in the sample were individuals and NGOs from the U.S. (37 and 22 accounts, respectively).

### *Dominant voices*

As these data (and Appendix A) illustrate, my sample is dominated by voices from the “First World” and those involved professionally with women in development. NGOs and individuals from the U.S. account for 21% of the users, and similar account types from Canada, Australia, and Europe constitute another 17% of users. The combination of all account types associated with Europe, Canada, the U.S., and Australia make up 53% of the total number of voices. Another 25% of the total users either specified a global reach or had no geographic specification at all. However, it is more likely than not that the majority of those accounts are also originating from within developed countries.

Twitter does not provide information to shed light on the social location of the actual individual who is typing at a computer and publishing a tweet, but the authenticity of user identity is not the concern of this analysis. What is represented on Twitter is my focus, and it is important to note that while at least 25% of the accounts in my sample were associated with developing countries, the majority of accounts, and tweets published concerning women and climate change, are associated with developed countries. While most of the voices originate from developed countries, as we will see, the major focus of this discourse is on poor rural women in least developed countries.

## **Uses of Twitter**

Twitter serves different functions for different users. For some, Twitter is a platform to share links to news articles and blogs. A second use is to broadcast information about specific topics to other users, in hopes that they will find it interesting or useful. Others use Twitter as a promotional or marketing tool. As mentioned in the previous chapter, a popular use of Twitter is in the context of attending or following the proceedings of a large conference, such as COP17. Still another use is for broadcasting commentary about an issue or event.

### ***Retweeting article titles and links***

Users often copy the title of an article and the hyperlink, and perhaps make some indication of why the article is important to them or share their opinion about the information in the article. It is often the case that a tweet about a news article that includes the link and the article title will be copied and shared by multiple users. Copying another users' tweet and sharing it under one's own profile is called "retweeting" and is indicated by the addition of "RT" at the beginning of the tweet. This occurred very frequently in my sample, and was helpful in showing how a frequently shared article (and thus a frequently repeated article title in the body of tweets) is instrumental in shaping and strengthening the discourse frame. Conducting my analysis of climate change discourse through Twitter rather than collecting a sample of articles through a search engine such as Google means that I was able to analyze not only what articles and other information about climate change exist, but who is talking about the article, and what they think about it. I

provide a list of the articles that were shared three times or more in my sample in Appendix B. An unexpected finding is that the bulk of my data consists of the retweeted titles of articles, rather than individuals writing their views in their own words. The prevalence of article titles in the data is reflected throughout this chapter, particularly where I discuss the imagery used to represent women in climate change discourse.

There were nineteen articles that were shared, or retweeted, four or more times in my sample, with some articles being shared as many as fourteen times in the sample. Seventeen out of the nineteen articles originated from developed countries; seven of the articles were on NGO websites, three were on UN websites, six were from news sources such as CNN or the Daily Beast, and one was on an individual's blog. One article that was shared eight times came from a national news source in Zimbabwe, and one article was from IPS, a news source dedicated to providing news from the global South.

### *Sharing resources*

Many organizations and individuals who work in international aid and development used Twitter to share resources such as agency reports with others in the field. Twenty-five per cent of this type of tweet originated from individuals and another 20% came from accounts associated with an NGO. This type of tweet made up 7% of the total sample, and was dominated by individuals and NGOs from developed countries. In fact, no users from developing countries used Twitter in this way. Twitter was used in this way to announce when a new publication was

available, such as a report entitled “Gender and Climate Change: Three Things You Should Know” published by the World Bank. Agencies used Twitter to promote their own publications as well as those produced by other organizations. Looking at @mentions, replies, and retweets reveals that the users on Twitter that are included in my sample because they wrote something about women or gender and climate change were not only publishing their own tweets but also using Twitter to follow the issue and were aware of other users who write about the topic as well.

The interconnectedness of tweets and the ways information that was shared and reshared among users in my sample in some ways indicates that a tight knit “community” exists on Twitter.com, composed largely of individuals who are professionals working in international development and aid. This falls in line with DeVoe’s (2010) findings that Twitter is a popular tool among attendees of large conferences.

### ***Raising awareness***

My sample contained a number of tweets (approximately 14%) that had a general focus on women and climate change. Again, a majority (56%) of these kinds of tweets came from NGOs (17%) or individuals (39%) from developed countries. These tweets discussed the fact that women are impacted by climate change, or otherwise countered the hegemonic absence of a focus of women in the climate change discourse. These tweets were written in a simple and general way, such as simply stating “Rural women and climate change” and then providing a

link to a website that discussed the issue. Roughly half of these tweets originated from individuals and the other half came from a combination of Twitter accounts representing organizations, blogs or news sources.

### ***Event news and information***

A large portion (16%) of the sample was directly related to COP17 events and proceedings. This included advertising gender-focused events occurring at COP17. As indicated by the tweets, gender was a “side issue” at the conference, and there were several “side events” that concerned gender. Considering the marginalization of gender as a topic for the official conference meetings, Twitter may have been particularly useful in connecting gender advocates to the information they needed at the conference.

The largest portion of tweets in this category came from NGOs (36%) and 21% of tweets specifically discussing COP17 events or proceedings came from individuals, all but two of whom were from developed countries. Organizations used Twitter to share schedules and locations for gender-specific events at COP17, preliminary drafts of conference documents, and to share links to news stories covering gender issues at COP17, such as “Gender and Climate Change: Durban Explores the Intersection” and “Why the International Climate Negotiations in Durban Matter for Women.” These articles were also shared by several individual users.

### *Response and resistance*

Along with sharing information about the COP17 proceedings, Twitter also was a platform for response and resistance to the direction of the proceedings. During the conference, tweets were published (12% of total sample) that indicated how the user hoped the next step of the conference would proceed. Thirty-nine percent of these tweets came from NGOs, and interestingly, in comparison to the other uses of Twitter mentioned above, representations of NGOs in developed countries (4 tweets) and developing countries (6 tweets) was much more even. However, just as the sample overall, this use of Twitter was still dominated by individual users from developed countries (41%).

Women's exclusion or marginalization—both as participants and as a topic of discussion--in the UNFCCC meetings was a theme in both the individuals' and organizations' tweets. Several individual users tweeted "Women farmers denied entry to UN Climate Change summit" and a related tweet stated "Rural African Women taunt U.S. climate envoy Todd Stern in song" when a group of women activists attempted to "gatecrash" the meeting. Several individuals and organizations expressed disappointment in the outcomes of the proceedings at COP17. Two article titles, "Climate Change, Bullying, and Gender" and "Durban Package: escape hatches, empty shells and a death notice for equity" with links to the articles were tweeted by several different users. Users tweeted statements such as "End Marginalisation of Women's Concerns and Integrate Women Fully into Negotiations," "Recognise the Rights and Roles of Rural and Indigenous Women

in Tackling Climate Change,” and “Draft text of Green Climate Fund being discussed now at #COP17. Let’s see if parties do right thing & keep #women at heart of GCF!” to convey their views on conference proceedings.

A portion of the tweets discussing women and climate change used the phrase “climate justice.” This term was used more often by organizations than individuals and was associated with speaking out in resistance against the UNFCCC proceedings, such as “Tibetan women speak out on climate justice for Tibet at UN Conference.” Mention of climate justice in conjunction with protests and demonstrations was common, such as a tweet linked to a photograph from a protest stating “At #COP17: ‘People before profit’. Powerful images say it all. #climatewomen.” Several tweets also shared news from “climate justice tribunals” that had occurred in Argentina and Nepal, such as “Nepal’s women express their fear at a ‘#women and #climate justice hearing.’” This portion of the sample shows that Twitter was used to respond to the dominant frame of climate change discourse and to contribute differing views about women and climate change as well as to express frustration at the marginalization of women in the climate change negotiation process.

### **Examining Climate Justice for Women**

Climate justice has been defined in this way by Mary Robison, the founder of Mary Robison Foundation-Climate Justice and the author of “Why Women are the World’s Best Defense,” which was the most commonly shared (14 times) article in my sample:



Climate Justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly. Climate justice is informed by science, responds to science and acknowledges the need for equitable stewardship of the world's resources (MRFCJ 2012).

Central to the current framework of climate justice, as understood by advocacy groups such as Mary Robinson Foundation-Climate Justice, is a human rights framework, a right to development, an equitable sharing of both the burdens and benefits of climate change, a transparent and participatory decision-making process, a highlighting of the gender inequality associated with climate change, the use of education as a tool for empowerment and climate stewardship, and intra-state as well as transnational partnerships. As Mary Robinson Foundation-Climate Justice website states:

These principles are rooted in the frameworks of international and regional human rights law and do not require the breaking of any new ground on the part of those who ought, in the name of climate justice, to be willing to take them on. (2012)

However, as discussed in Chapter Two, Catherine MacKinnon argues that women have never been recognized as “human” under the law. Thus, using existing international frameworks without the “breaking of any new ground on the part of those who ought to be willing” (MRFCJ, 2012) to take on the challenge of climate stewardship, holds little hope for reducing the risks that climate change presents to the world's most disenfranchised women, as well as little chance for “empowerment.”

### **Representations of Women and Emergent Themes**

It is important to examine both who is speaking and contributing to discourse, but also the way they talk about the subjects of their discussion. The references to women in relation to climate change constitute a narrow representation of the category “woman.” Women were mentioned in several contexts, but these were used repeatedly across the sample. When examining the ways women are represented in discourse, it is important to consider the ways women are *not* represented, and which women are rendered invisible because of the construction of the category “woman” within the discourse. In other words, examining which kinds of women are spoken about in discourse and the kinds of women that are not mentioned reveals something about the function of the ways “women” as a category is formed through language.

As mentioned previously, the vast majority of tweets concerning women and climate change come from developed countries, but the focus of their discussion is either a universalized and collapsed notion of women or a narrow focus on women of the global South that reifies colonialist and racist stereotypes of women of color outside the U.S. Over 77% of the sample simply used “women” as a generic category, and the other 23% of the sample specified certain types of women in specific places or situations. The representations of women (in other words, the kinds of women who are specifically talked about) that were found in my sample are listed below, along with the percentage that particular representation holds within the 23% of the sample that contained any specific

mention of which women were being talked about: hungry women (2%); indigenous women (6%); rural women (24%); women farmers (41%); women who fetch water (2%); women who use cook stoves (3%); women who gather firewood (1%); mothers whose children die in Africa (1%); women who feed Africa (4.5%); women who speak (24%); and women who live in fear (9%). Save for women who speak (in leadership or protest), these representations feed into existing negative stereotypes about women of color outside the U.S. I will address the representation of women who speak out and how the connection to a neoliberal definition of empowerment still feeds into these negative stereotypes later on in this chapter. Women in several specific countries were also mentioned: Tanzania, Cameroon, Kenya, South Africa, Ghana, Zimbabwe, India, Indonesia, Tibet, Nepal, Bangladesh, Japan, Ecuador, Argentina, Chile, Peru, Mexico, Turkey, and Australia. As this makes clear, the discourse is largely constructed by First World voices, but by and large the focus is on Third World Women.

In the next section I examine the discursive frames in which these represented women were embedded and how recurring themes were linked to women's roles in climate change discourse, revealing the ways this First World-dominated discourse constructs expectations and assumptions about women of the Third World. These frames include: domestic duties; vulnerability; violence against women; empowerment; and militarism.

### *Domestic duties*

Women were most often discussed in terms of their role within the household and activities related to domestic labor such as farming, cooking, cleaning, bearing and raising children, etc. Women's performance of some sort of domestic duty accounted for 16% of the sample, and again, 43% of tweets within this theme came from NGOs and individuals from developed countries. Women's position as domestic laborers was conveyed in tweets such as "During dry season in India and Africa, 30% or more of a woman's daily energy intake is spent just in fetching water #COP17 #Climategender" and "Women not only vulnerable, they collect water & firewood, produce food. They can also find solutions <http://t.co/Jz8ZKR6o> #climate women."

Women were mentioned in relation to the ways that climate change impacts hunger, food security, and food sovereignty. These issues implicate women because it is women who are the majority of the world's food producers, as well as the majority of people responsible for feeding others. As discussed above, women as farmers was one of the most common ways women were referenced in my sample. Sustainable development and the Green Climate Fund were framed by the users of Twitter as things that could be of particular benefit to women, both because they are farmers and because they constitute the majority of the world's hungry. Examples of this include "From the BBC: Ecuador's #Women Farmers Reap Rewards of Joint Work [link to article] #climatewomen #sustainabledev" and

“With nearly 1 in 7 hungry (majority women + girls), we need a Green Climate Fund(ed) now.”

Women were also framed in the discourse in relation to reproduction, family planning and population control. Some users shared links to a documentary called *Weathering Change* produced by Population Action International, and a blog article with a similar message as *Weathering Change*. Examples of this category of tweets include “Free documentary, Weathering Change: Stories about climate change and family from women around the world” and “Most places most vulnerable to #climatechange are also places with a need for #familyplanning’ [link to article] #COP17 #climatewomen.” Linkages were made between family planning and women’s empowerment, such as “To learn more about the connections between climate, family planning, and women’s empowerment: [link to article].” This linkage will be discussed further in the section on the theme of empowerment below.

Several organizations used Twitter to advertise their products or programs by framing their activities as a great benefit to poor, rural women. Examples of this include the International Fund for Agricultural Development (IFAD) tweeting “Building climate-smart smallholder #agriculture experience in 40 countries with women, communities, partners!! #COP17” and a company called Darfur Stoves tweeting “Save lives, empower women, fight #climate change & improve financial security with #cookstoves.”

The most interesting aspect to the domestic-related representation of women in climate change discourse was the presumptions of responsibility for the performance of domestic labor, such as cooking and feeding others. Consider the following examples:

- “How women farmers in South Africa are adapting to climate change to feed their families [link to article]”
- “Small scale women farms in S. Africa are struggling to feed their families”
- “Calls for a fair share of finance to help women feed Africa [link to article]”

Phrases such as “*help women feed Africa*” assume that it is women’s job to feed the people who live on the continent of Africa. Similar presumptions were made around women’s responsibility for family planning and water safety. The emphasis on women’s domestic duties, in the context of climate change discourse functions of two levels. First, it does the important work of bringing to light the material reality of women’s daily lives and the ways in which these responsibilities are part of why women are disproportionately impacted by the effects of climate change. But, in the absence of other representations of women, it also serves to reinforce the assumption that reproductive and domestic labor are *inherently* the responsibility of women.

### ***Vulnerability***

The increased levels of vulnerability that women experience because of their social position in the face of climate change was reiterated on Twitter and was one of the most common themes (16%) I found in my analysis. Climate change “threatens” and “kills” women’s livelihoods; women “live in daily fear of climate change”; climate policy must “protect women” because they “bear the brunt” and are “most at risk” from climate disasters. Articles shared on Twitter discussed “Ghana: The Woes of Women Amid Climate Change”; how women in Indonesia are “least prepared” during natural disasters; and “Char Nongolia, once known for its forests, is barren. Menfolk left for city, leaving #climatewomen behind.” Women “face [a] greater threat from climate change,” and simply put, “Issues with #women rise during #climate change.” Barrenness, threat, risk, fear, and death were discursive frames that tied women to climate change in the discourse. More voices from developing countries tweeted about vulnerability than about other themes, and, within this theme, made up 16% of the users whose geographic location was known. Nonetheless, as with all other findings, this theme was also dominated by First World voices.

Discursive representation of groups of people is never constructed in an apolitical way. Discourse reveals power and constitutes a realm in which power maintains its control. We know that poor, rural women in the least developed countries *are* most disproportionately affected by climate change. While this is true, consequences arise from an overrepresentation of poor rural women’s

vulnerability and victimhood in discourses dominated by First World voices. The vulnerability of women was reinforced in the discourse by another theme: climate change perpetrating violence against women.

***Violence against women***

Related to women's representation as vulnerable victims is the way climate change was represented as a perpetrator of physical violence against women in seven per cent of the sample. This was accomplished by describing the way women are affected by climate change with variations on the phrase "women get hit hardest," such as "Are Climate Change and Natural Disasters Disproportionately *Hitting Women* as the Food Supply is Threatened, Asks Newsweek," "Climate change threatening women's livelihoods? Rural women hardest hit," and "Eye of the Storm: Why *women get walloped* more than men by the globe's ever-changing climate" (emphases added). Violence against women was also conveyed in the article title "Climate Change is Killing Women's Livelihoods" which was mentioned in the previous section, and the phrases "women live with climate terror," "stop climate violence on poor women!" and "climate change kills me."

While using imageries of violence to describe the action of nonhuman entities is a common convention in the English language (e.g., "the violence of the storm"), the frequency with which violent imagery was used to describe the relationship between climate change and women was significant, and the fact the 53% of tweets using such imagery came from individuals in developed countries



must be noted. I will discuss the significance of such imagery in conjunction with the theme of militarism below.

### *Empowerment*

Simultaneously as women are portrayed as vulnerable victims, they are also discussed as empowered agents “poised to drive change.” In general terms, this frame, which made up 25% of the sample, discussed climate change as something that needs to be fixed and that the solution is to include women in the process of responding to climate change from now on; their “involvement” would be the solution. “Rural women as decision makers viewed as pivotal to climate change solutions” is an exemplar of this aspect of representations of women in climate change discourse, as is the article title, “Empower Women and Be Better Prepared for Climate Change, Says World Bank Study.”

Women’s agency was portrayed in ways such as “women demand to be included in climate solutions,” “women impacted by climate change but not as victims,” and “how women are affected by, and can shape, climate policy.” The “not as victims” solution offered by the article related to this tweet was that women are empowered through family planning. Thus, controlling women’s fertility not only is framed as the solution to climate change, but also meets the abstract goal of empowering women. It was also discussed that “women really can lead the way to a green economy” and that including women in climate change solutions will “unlock the future.”

A related secondary theme involved women's voice and speaking to power. Women in Ghana "want [their] voices heard in climate change decisions" and "rural women in Africa speak out at climate change conference: Activists give a stern message to officials." This tweet was related to the event mentioned earlier, when "500 members of South African Rural Women's Movement blocked road outside UN climate conference in Durban" on December 3, 2012.

The exception to the overall representations of women listed at the beginning of this section was the mention of specific women leaders, such as Sheila Sisulu (Deputy Executive Director for Hunger Solutions of the World Food Programme), U.S. Congresswoman Barbara Lee, and Mary Robinson (former president of Ireland, founder of Mary Robinson Foundation - Climate Justice, and United Nations High Commissioner for Human Rights 1997-2002). A discussion occurred around the introduction of House Resolution 84 by U.S. Representative Barbara Lee (D-CA), which urges Congress to consider "the unique capacity and knowledge (of women) to promote and provide for adaptation to climate change" when examining ways to protect U.S. national security from the threat of "migration, refugee crises, and conflicts over scarce natural resources including land and water" caused by climate change (Kalloch 2011). Sheila Sisulu spoke in a short video entitled "Women Matter" that was widely shared on Twitter, and Mary Robinson wrote an editorial, which I discuss in my next section.

Simultaneously, along with representations of vulnerability, my research of Twitter reveals another portrayal of poor, rural, Third World women as valiant

heroines who will save the world—the First World, especially—from climate change disaster. Why are disenfranchised women represented this way, and what is the function of such a representation? How does this representation benefit the First World parties who have the most dominant voice and the most discursive privilege?

From previous research mentioned in Chapter Two, we know that a neoliberal rhetoric of empowering women in the Third World is employed by population control advocates. Such advocates discuss increasing access to family planning and contraceptive options for poor rural women of color as empowerment. And yet, under closer examination, this version of empowerment is something that is *enacted upon* disenfranchised women, rather than something that comes from women and that they can claim for themselves with agency.

While I do not doubt the power of collective action and grassroots social movement, it is clear that the people with the least access to resources and power do not have the ability to single-handedly reverse an entire global system of climate change while the overconsumption and environmental exploitation at the hands of the richest countries goes unchecked. Using different stoves, having fewer babies, or being “empowered” or “mainstreamed” into economic development projects will not result in a miraculous reversal of the systematic changes taking place in our atmosphere and ecosystems; these changes are caused by the burning of fossil fuels and the emission of greenhouse gases into the atmosphere. Yet as my research shows, the rhetoric used in climate change

discourse places the burden of fixing climate change onto the shoulders of the most economically disenfranchised segments of the world population. The usefulness of this rhetoric for those in power is that it creates a diversion of accountability and responsibility away from the world's biggest polluters.

### ***Militarism***

In climate change discourse, imageries of war are used to describe the events and struggles humans are experiencing because of climatic disruptions in seven percent of the sample. In relation to women, in particular, my sample included phrases such as “Women at the frontlines of climate change” and “the role of women in combating climate change.” In this frame, it is particularly interesting to examine the ways women are framed in militaristic terms as warriors and heroines for the world against the foe of climate change. This is discursively connected to women's empowerment and agency, but it is important to look at how the discourse frames women's struggle against climate change, particularly in light of how climate change is also imagined as a perpetrator of violence against women. Women “fight” climate change on behalf of the world, rather than for themselves and their own survival. “Why women are the world's best climate change defense” written by Mary Robinson was one of the most shared articles in my sample and exemplifies this frame. Placing women in the position of defending the world against climate change is problematic and misguided. Doing so creates a diversion and allows those who are the world's largest polluters the

deflection of responsibility of reducing carbon emissions and making the necessary changes to prevent irreversible damage to the earth's atmosphere.

By using words associated with violence and militarism, such as “walloped” “Hardest hit” and “best defense” within a discussion of women, entire sets of symbolic understanding are invoked, such as violence against women and the militarized use of women's bodies. Discussing climate change as though it were an entity capable of perpetrating violence on women's bodies is not a benign image. Rather, it is an invocation of all we know about violence against women, as well as all the typical victim-blaming tropes associated with this issue. Female victims of intimate partner violence and sexual assault are often blamed for not improving their situation by leaving the perpetrator. The focus becomes the individual, rather than the structural constraints that limit women's options and maintain perpetrators' control over women's lives.

By anthropomorphizing the atmospheric phenomenon of climate change by saying that it “wallops” women, similar victim-blaming rhetoric could be invoked and similar deflections away from underlying structural issues of the violence can occur. What is at issue here is that our conceptions of human and non-human “violence” are conflated in our current use of language. I argue that the effect of this is that violence inflicted by humans upon other humans is downplayed and rendered invisible. This conflation is further complicated by the fact that because climate change is a human-caused phenomenon, many weather and climate related disasters could be argued to be directly caused by humans. However, our current

use of language around violence and climate change is far from bringing these connections to light. Non-human forces, such as a storm or tsunami, are destructive and physically powerful, but I challenge us to consider what the consequences may be of using the same terms to describe these events as we use to describe human violence, particularly men's violence towards women.

I argue that there is a difference between violent human behavior and the destruction caused by a non-human, physically forceful phenomenon, such as weather, for example. This distinction must be made more clear through our language use, at the same time that we also bring to light the ways that climate change *is* a human-caused phenomenon, for which those who have perpetrated these ecologically destructive systems should be and must be held accountable.

If the conflated use of violent terminology continues unchallenged, this has a protective effect against the accountability and responsibility required for climate justice to be served, and upholds a militarized view of our responses to climate change. While women around the world may be more vulnerable to the effects of climate change, and therefore more likely to experience the destructive effects of climate change, the "walloping" of women as the focus of the discourse has a similar effect as seeing sexual assault and domestic violence as a "women's issue." As a women's issue, sexual assault is seen as a problem that women need to fix, rather than an issue that requires men to be accountable for preventing the violence from occurring in the first place. Climate change is not capable of being violent

toward women; it is structural oppression that makes women more vulnerable than men to the effects of climate change.

### **Marginalization of Women as a Climate Change Topic**

I did a brief comparison of my findings to broader climate change discourse. Using Topsy.com, I retrieved a sample of tweets containing the term “climate change” from the three date ranges I used in my original sample.

**Table 4: Total # tweets for each search term for each date range, and totals**

Search Term	Total Tweets in Date Range #1 Before COP17	Total Tweets in Date Range #2 During COP17	Total Tweets in Date Sample #3 After COP17	Total
climate change	10,754	50,802	19,872	81,428
women climate	525	1,954	248	2,727
gender climate	104	471	105	680
#climatewomen	86	167	11	264
#climategender	0	60	0	60

There was a total of 81,428 tweets that contained “climate change” in the three date ranges I sampled. I analyzed the first 100 tweets from each date range (total 300) and found zero mention of women or gender. This indicates that within climate change discourse, any attention whatsoever to gender issues or the impacts on women’s lives is marginalized and is indeed considered a “side issue.” Consequently, women’s diverse needs, responsibilities and experiences are rendered invisible by the language surrounding climate change, thus limiting the

possibilities for effective and appropriate gender-responsive climate intervention to occur.

### **The Discursive Feminization of Climate Change**

Climate change discourse has come through several iterations thus far. First, climate change was “scientized” (Keller, 2010) as the IPCC was formed in the 1980s. Climate change then became securitized and militarized, constructed as a threat to state and economic security (e.g., MacGregor 2009 and Trombetta 2008). Under this frame, the construction of “climate change refugees” occurred as a new way to describe migration across borders. Climate change as a problem that required international governance also developed alongside these frames with the establishment of the Kyoto Protocol and the COP/CMP process. The Protocol and the Bali Roadmap paved the way for a new discursive frame: that of commodification. Carbon became a commodity through cap and trade schemes and the formation of a formal carbon market. Within these frames, the response to the problem of climate change has been dominated by men who represent rich, industrialized, polluting nations and powerful transnational corporations.

However, success within these frames is paltry; the Kyoto Protocol is the only successfully negotiated legally binding agreement between nations, but the U.S. and Australia—two of the worlds largest carbon emitters—never ratified the agreement. Those countries that did agree to the Protocol failed to meet the agreed upon targets for cutting emissions rates. The outcome of COP17 was a delay of the expiration of the Kyoto Protocol until 2017 or 2020 (to be negotiated at future



COPs), and while the UNFCCC is calling for a second agreement to take its place, it is unlikely that Russia, Japan, Canada and the U.S. will join a second round of agreements (Broder, 2011). In an interview at the end of COP17, climate and energy fellow at the Council on Foreign Relations in New York, Michael A. Levi, stated:

The reality is that there is no more agreement on the future of the climate talks than there was when negotiators first convened two weeks ago... Europe will continue to insist on a full-blown legally binding agreement; China and India will continue to oppose one; and the United States, while leaving the door open to an agreement that is binding for all, will continue to be unenthusiastic as well. These positions are largely rooted in incompatible views of the future, and there is no reason to believe that more talking will change them. (Broder, 2011)

Over the last few years, we have witnessed the failure of these negotiations to produce fruitful agreements or create any structures through which accountability to these agreements might be measured. Indeed, since 2009 we have seen the utter collapse of the efficacy of the UNFCCC process, evidenced most strikingly by the 2009 agreement to create a fund (the GCF) which would distribute \$30 billion of “fast-track financing” by 2012 and \$100 billion per year from rich countries to poor countries for the purpose of mitigation and adaptation to climate change through 2020, which remains in the design phase and unfunded as of this writing (Gender CC, 2011; IISD, 2011). The expiration of the Kyoto Protocol will likely mark the end of the current framing of climate change.

Calls are being made by climate justice activists and gender advocates for a shift in focus around climate change, from viewing climate change as a scientific

problem needing technological solutions to a social problem needing human rights interventions. This push for a new frame is coming from those involved in the climate change arena; it is important for feminists to help shape the conversation around gender and women as this shift of framing occurs.

My findings illustrate how women are framed in climate change discourse. While the construction of the category “women” in the discourse is largely dominated by NGOs and individuals in developed countries, the discursive focus is on poor rural women of color outside the developed world. Much of the rhetoric employed suggests that empowerment can be something that is *enacted upon* these women through access to family planning, and education on better cooking and farming practices, all things given to them by the developed world. Then, as “empowered” individuals, they will act as warrior-heroines who fight on behalf the world. The idea that they are “fighting” climate change and are “the world’s best climate defense” suggest that such representations may be instrumental in ushering in a new frame of climate change discourse. From commodification, securitization, and governance, climate change discourse may be shifting to feminization, wherein, through neoliberal rhetoric of empowerment, the world’s disenfranchised women become the bearers of heroic responsibility to “unlock the future” for the world through on-the-ground, mitigation techniques such as contraceptive use and cooking with fuel efficient cookstoves.

While the topic of women is currently marginalized within climate change discourse in general, I predict a shift in the discursive framing of the climate

change problem, in which the representation of women will play a major role. This prediction is based on two factors: the call for climate change response to shift from a technoscientific focus to a human rights focus, and the ineffectiveness of the COP process to develop functional and successful response mechanisms within the current frame. The representations of women found in this research on climate change discourse point to how women may be increasingly tied to the topic of climate change: by feminizing the problem. The *discursive feminization of climate change* describes the project by which the securitized, commodified, and governability frames through which climate change is currently viewed will shift to a frame which constructs the problem as a “women’s issue,” focused on solutions rooted in reproductive labor such as population control through family planning and domestic responsibilities of cooking, wood harvesting for household fuel, and water usage. Since nations, and the (mostly) men who represent them, have failed to address the problem of climate change in meaningful and effective ways, I believe that we will increasingly hear more rhetoric that frames poor rural women as the disenfranchised underdogs of the world whose job it is to clean up the mess of climate change.

The phrase *feminization of poverty*, originally coined by Pearce (1978), is used to describe the phenomenon where “the burden of poverty [is] borne by women, especially in developing countries” and is coupled with an informalization of the labor force worldwide (Chen, Vanek, Lund, Heintz, Jhabvala, Bonner, 2005). Likewise, the discursive feminization of climate change places the burden

of this global problem on women in developing countries and represents a shift away from formal climate response in the form of United Nations led international governance and securitization to an informalization and domesticization of the problem.

## Conclusion

In this thesis I articulate a transnational feminist framework through which I examine the representations of women in climate change discourse. I provide background on why climate change is a feminist issue by discussing the existing literature on the ways in which climate change exacerbates overlying systems of social inequality and thus has a disproportionate impact on women's lives, as well as contextualizing the association of women with nature using ecofeminist theory. I discuss why I believe it is important for the feminist and environmental movements to work in solidarity, and why it has been a challenge to do so. I provide a thorough review of the ways in which climate change discourse is currently framed and discuss the hegemonic influences on how we respond to climate change through the UNFCCC COP process. After reviewing the literature on the use of social media for social research and the role of social media in social and environmental movements, I articulate the methodology through which I conduct an analysis of the representations of women on Twitter in relation to climate change and COP17. I discuss the themes that emerged from my data, specifically that imageries and frameworks of violence, imperialism, and militarism are used heavily in the portrayal of women within this discourse, and that the representations of women within climate change discourse depict a collapsed and universalized notion of half the world's population. Additionally, I offer evidence as to why the discursive feminization of climate change may continue to increase.

A shift towards the feminization of climate change discourse is not necessarily negative, but I argue that it does require concerted attention and intervention by feminist scholars and activists. The movement to end violence against women shows us that feminist theory can influence and reshape the framing of an issue, and subsequently, shift policy and institutional responses to a problem. This analysis suggests that we need to question the ways in which images of violence against women are used in climate change discourse. Furthermore, we need to challenge the connections between these images and the discursive construction of women as a vulnerable and universalized group; the role women are placed in as heroic underdogs who will engage in combat against climate change and save humanity; the ways in which population control is offered as an oversimplified solution to climate change that places responsibility for climate change with poor rural women; and the ways that this discursive representation of women relies on the reinforcement of reproductive and domestic labor as “women’s work.” Furthermore, we need to continue to challenge the rhetoric of empowerment in development discourse and the ways that this rhetoric is employed in dubious ways by hegemonic systems of power.

### **Future Research**

There are many other aspects to the role of social media in discourse formation and social movements that I am also interested in exploring besides the specific focus of this thesis. For example, a comparison between discourse on Twitter versus a women-centered platform such as World Pulse Lounge would

reveal fascinating insights around global gender construction in the virtual sphere.

Also, a more detailed study of gender, race, and geography in Twitter users and the relationship between geographic location and discourse contribution would provide greater understanding of who contributes what to global discourse.

Another key direction for future research on climate change discourse and social media is whether or not Twitter allows for a greater multiplicity of voices to enter the discourse than more traditional genres of discourse such as mainstream news outlets, television, and magazines. A comparative study of the voices found on Twitter versus a more traditional media source would be beneficial for social researchers to better understand the potential value of Twitter as a research tool. These aspects are excluded from my study not for a lack of interest or understanding of the value on my part, but simply because of the necessary limits to the scope of this project. I hope to continue expanding upon this work in the future.

### **Climate Privilege and Climate Solidarity**

Feminist scholars need to begin work on understanding what I have termed climate privilege, meaning the unearned geographic and nation-state advantages one possesses in light of climate-related problems and potential disasters. The intersectionality of various forms of oppression and privilege has been a central part of feminist analysis since Crenshaw coined the term in 1989, and the evidence is clear that the unevenly distributed effects of the changing climate add yet

another aspect of unearned privilege and oppression onto our multilayered identities within systems of domination and subordination.

I believe that climate change, as a global problem, can create a platform for work centered on *climate solidarity*, and that a frame of climate solidarity would necessitate an integration of both social and environmental justice perspectives. While climate change is a crisis, let us see this crisis as an opportunity to build global political solidarity between those with climate privilege and those further oppressed by climate change. As Meyer and Prugl (1999) state, “international economic and political crises destabilize entrenched institutions, including institutions of gender, thus opening up opportunities for emancipatory politics” (p. 16). Climate change is one arena in which feminist can engage in what Naples (2002) terms *postliberal* feminist politics:

The postliberal approach to women’s movement politics recognizes that the feminist struggle is not based on “a definable empirical group with a common essence and identity—that is, women—but rather as a struggle against the multiple forms in which the category ‘women’ is constructed in subordination. (p. 278).

As my research shows, the category of women as constructed in climate change discourse is one of many opportunities to engage in postliberal feminist activism and scholarship. Twitter and social media in general, may be one of many possible sites in which to enact climate solidarity by interrupting racist and imperialist representations of women in climate-vulnerable populations.



### **A Call to Action**

The U.S., Australia, and the EU are historically the largest contributors to global climate change through carbon emissions and are the geo-political centers of power around the industries and systems that are perpetuating climate change. They are also political and economic geographies built upon histories of imperialism and colonization of the global South, which currently are far more severely impacted by changes in climate than the North. I argue that western feminists have not only plenty of reasons for scholarly and activist intervention in the climate change arena, but also a moral obligation to address climate change as it relates to their area of research and praxis.

The call to engage with climate change is urgent because we need more people with the kinds of analytical skills feminists possess to be involved in the processes of responding to climate change; from understanding it scientifically, to participating in the formal UNFCCC negotiation process and advocating on the behalf of women; to offering new conceptualizations and new social theories in order to make meaning out of this global reality. Bill McKibben (2010) terms this place we inhabit *Eaarth* to illustrate that, as the science of climate change indicates, permanent climatic shifts are not something looming on the horizon; they have already occurred and we already inhabit a “new world.” Do we want existing patterns of power to remain unchanged on Eaarth, or shall we see our entrance into a new epoch as an opportunity to “turn the world upside down,” and work to make the Anthropocene an era of social transformation toward equality,

justice, and democracy? This can only happen if we acknowledge our environmental and material realities and engage our feminist praxis there, on the ground, so to speak. I fear that if the avoidance of environmental topics and climate change in mainstream feminism continues, a grave opportunity for praxis will be lost, with lasting effects for generations to come. Let us not allow this opportunity to pass by unnoticed.

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**APPENDICES**

**APPENDIX A**  
**TWITTER PARTICIPANTS**

Region Specified	Country	Number of Twitter Accounts	% of total from sample	NGO	State Organization (includes UN)	Individual	News	Business	Other
Global/Int'l	N/A	25	9%	10	3	3	7	-	2
Unspecified	N/A	46	16.5%	5	-	18	11	2	10
Africa									
	Unspecified	3	1%	1	1	-	1	-	-
	Cameroon	1	.3%	-	-	-	1	-	-
	Kenya	4	1%	-	-	3	1	-	-
	Nigeria	2	.7%	-	-	2	-	-	-
	Senegal	1	.3%	1	-	-	-	-	-
	South Africa	7	2.5%	2	-	4	1	-	-
	Tunisia	1	.3%	-	1	-	-	-	-
Asia									
	Unspecified	1	.3%	1	-	-	-	-	-
	China	1	.3%	1	-	-	-	-	-
	India	2	.7%	-	-	1	1	-	-
	Indonesia	2	.7%	1	-	-	1	-	-
	Thailand	1	.3%	-	-	-	-	-	1
Central America									
	Costa Rica	1	.3%	-	-	1	-	-	-





**APPENDIX B**

**MOST COMMONLY SHARED ARTICLES AND LINKS**



# times appeared in sample	Title	Website	Hyperlink
14	"Why Women are World's Best Climate Change Defense"	CNN	<a href="http://www.cnn.com/2011/12/09/opinion/mary-robinson-women-climate/">http://www.cnn.com/2011/12/09/opinion/mary-robinson-women-climate/</a>
14	"BRIDGE Cutting Edge Packs Gender and Climate Change"	BRIDGE	<a href="http://www.bridge.ids.ac.uk/go/bridge-publications/cutting-edge-packs/gender-and-climate-change">http://www.bridge.ids.ac.uk/go/bridge-publications/cutting-edge-packs/gender-and-climate-change</a>
13	"Women Impacted by Climate Change- but Not as Victims"	All Africa	<a href="http://allafrica.com/stories/201112080224.html">http://allafrica.com/stories/201112080224.html</a>

13	“How Women Are Affected By, and Can Shape, Climate Policy”	Greenbiz.com	<a href="http://www.greenbiz.com/blog/2011/12/09/how-women-are-affected-and-can-shape-climate-policy?page=0%2C0&amp;utm_source=GreenBuzz&amp;utm_campaign=58a3404b34-GreenBuzz-2011-12-09&amp;utm_medium=email">http://www.greenbiz.com/blog/2011/12/09/how-women-are-affected-and-can-shape-climate-policy?page=0%2C0&amp;utm_source=GreenBuzz&amp;utm_campaign=58a3404b34-GreenBuzz-2011-12-09&amp;utm_medium=email</a>
11	“Gender and Climate Change: Durban Explores the Intersection”	Think Progress	<a href="http://thinkprogress.org/climate/2011/12/05/381664/gender-and-climate-change-durban/?mobile=nc">http://thinkprogress.org/climate/2011/12/05/381664/gender-and-climate-change-durban/?mobile=nc</a>
9	“Rural Women in Africa Speak Out at Climate Conference”	Voice of America	<a href="http://www.voanews.com/english/news/africa/Rural-Women-in-Africa-Speak-Out-at-Climate-Conference-134825718.html">http://www.voanews.com/english/news/africa/Rural-Women-in-Africa-Speak-Out-at-Climate-Conference-134825718.html</a>

8	“Women Most at Risk from Climate Disasters, says UN Report”	United Nations Environmental Programme	<a href="http://www.unep.org/newscentre/Default.aspx?DocumentID=2661&amp;ArticleID=8975&amp;I=en">http://www.unep.org/newscentre/Default.aspx?DocumentID=2661&amp;ArticleID=8975&amp;I=en</a>
8	“Climate Change Killing Women’s Livelihoods”	News Day	<a href="http://www.newspday.co.zw/article/2011-12-07-climate-change-killing-womens-livelihoods/">http://www.newspday.co.zw/article/2011-12-07-climate-change-killing-womens-livelihoods/</a>
7	“Nepali Women Live with Climate Terror”	IPS News	<a href="http://ipsnews.net/news.asp?idnews=105771">http://ipsnews.net/news.asp?idnews=105771</a>
7	“Unlocking the Future”	You Tube	<a href="http://www.youtube.com/watch?v=QgO-FWNWgXw&amp;feature=youtu.be">http://www.youtube.com/watch?v=QgO-FWNWgXw&amp;feature=youtu.be</a>
7	“Eye of the Storm: Why women get walloped more than men by the globe’s ever-changing climate”	The Daily Beast	<a href="http://www.thedailybeast.com/articles/2011/11/04/climate-change-and-natural-disasters-why-women-get-hit-hardest.html">http://www.thedailybeast.com/articles/2011/11/04/climate-change-and-natural-disasters-why-women-get-hit-hardest.html</a>

6	“Climate Change: Gender and Climate Change- Three Things You Should Know”	Mike Hitchen: i on Global Trends	<a href="http://www.ionglobaltrends.com/2011/11/climate-change-gender-and-climate.html">http://www.ionglobaltrends.com/2011/11/climate-change-gender-and-climate.html</a>
6	“Why the International Climate Negotiations in Durban Matter for Women”	Common Dreams	<a href="http://www.commondreams.org/view/2011/12/07-7">http://www.commondreams.org/view/2011/12/07-7</a>
6	“Women at the frontline of climate change: Gender Risks and Hopes”	United Nations Environmental Programme	<a href="http://www.grida.no/publications/rr/women-and-climate-change/">http://www.grida.no/publications/rr/women-and-climate-change/</a>
5	“Argentina Tribunal”	White Band	<a href="http://whiteband.org/en/women-climate-hearings-argentina">http://whiteband.org/en/women-climate-hearings-argentina</a>
5	“Women Matter”	YouTube	<a href="http://www.youtube.com/watch?v=n_bzIU_4xuc&amp;feature=youtu.be">http://www.youtube.com/watch?v=n_bzIU_4xuc&amp;feature=youtu.be</a>

4	“Weathering Change”	Population Action International	<a href="http://populationaction.org/videos/weathering-change/">http://populationaction.org/videos/weathering-change/</a>
4	“Food Processing Curbs Climate Losses for Women Farmers”	AllAfrica.com	<a href="http://allafrica.com/stories/201112051909.html">http://allafrica.com/stories/201112051909.html</a>
4	“Land is Life in South Africa”	Oxfam Australia	<a href="https://www.oxfam.org.au/grow/land-is-life-in-south-africa/">https://www.oxfam.org.au/grow/land-is-life-in-south-africa/</a>

