

Changing Climate, Uncertain Future

Considering Rural Women in Climate Change Policies and Strategies

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Cet article explore les effets des changements climatiques à partir d'expériences marginalisées chez les femmes rurales et dans leur communauté. En examinant ces changements dans une perspective rurale et genrée on a contextualisé le problème offrant ainsi des directives qui incluent les expériences des femmes rurales dans les stratégies et les politiques des changements climatiques.

There is utter uncertainty about what the future will look like in the age of climate change. Just a handful of the anticipated social, economic and environmental costs of climate change—drought, extreme weather, flooding, fires, disease, starvation, resource depletion—foretells disaster for people and ecosystems around the world. There will be little shelter from the fallout of a changing climate. And there is no doubt that it is the world's poor and marginalized, the people who have had the smallest role in creating climate change and who are the least able to shape responses for adaptation and mitigation, that are the most vulnerable to climate destabilization.

Canadians are witnessing that even the subtlest changes in the climate has the potential to affect our daily lives. From households to workplaces, across urban, rural, and remote landscapes, there is a budding recognition that the climate is changing. Yet, even with the increasingly visible evidence of the force of climate change there is negligible public debate and citizen action, and only restrained policy and strategic responses from municipal, provincial, and federal governments. Even more marginalized is dialogue on how to protect people and ecosystems that are the most vulnerable, and make certain that all public interests and social locations, and not just a select few, are considered in climate change policies.

Ultimately, equitable responses to climate change requires informed citizens and democratic approaches that do not leave communities, regions or segments of the Canadian population out of the negotiations. This article explores the affects of climate change from the typically

marginalized experiences of rural communities and rural women. Examining climate change from rural and gendered perspectives gives context to the problem and provides directions for including the experiences of rural women in climate change polices and strategies.

Canadian Climate Change Policy Directions

Limited public engagement with the issue of climate change reflects the Canadian government's hesitance to fully address the primary causes of climate change: unjust economic relations and unsustainable consumption patterns fueled by fossil fuels. Instead, Canada, like much of the industrialized world has responded to the global challenge of climate change by using market-based principles to guide international negotiations that protect northern interests and priorities.

Canada, unlike the U.S., has at least acknowledged the reality of climate change by endorsing the Kyoto Protocol. Negotiated in 1997, ratified by the Canadian Parliament in December 2002, and becoming international law in February 2005, Kyoto is an international agreement to reduce greenhouse gas emissions, the primary cause of climate change. The irony is that since signing the protocol in 1997 Canada's "business-as-usual" practices have caused greenhouse gas emissions to rise steadily (Suzuki Foundation 2005a).

Regardless of the fundamental flaws in the Kyoto Protocol its premise is supported by Canadian NGOs, like the Suzuki Foundation and Pollution Probe, as a first step in an international response to a global threat. Canada's plans to respond to Kyoto have been outlined in the *Climate Change Plan of Action* released in November 2000, and in the April 13, 2005 revised plan *Project Green—Moving Forward on Climate Change: A Plan for Honouring our Kyoto Commitments*. The 2005 plan proposes to use the full range of policy instruments to shift Canada toward a clean energy future and increase the

efficiency, sustainability and international competitiveness of the Canadian economy, while moving toward our emission reduction objectives under the Kyoto Protocol (Government of Canada 2005). The plan is built on six key elements: competitive and sustainable industries for the twenty-first century, harnessing market forces, partnership among Canada's governments, engaged citizens, sustainable agriculture and forest sectors, sustainable cities and communities.

Response by environmental NGOs to the 2005 plan commended its release, but condemned its lack of teeth to

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confront corporate pollution, and ultimately downloading an unequal share of reducing greenhouse gases onto citizens (Suzuki Foundation 2005b). According to the plan, citizen's

buy-in and active involvement are critical if we are to achieve our climate change and sustainability goals. Canadians need to take action themselves and can play an important role in driving sustainability improvements in communities and industry. (Government of Canada 2005: 28).

Paradoxically, this plan for citizen engagement has been done with limited citizen participation in policy and strategy development. Citizen "buy-in" will require more than a stated policy direction and a few celebrity promoted advertisements in the public media. The abstract science, economic language, and trading mechanisms that dominate discussions of climate change marginalizes other forms of knowledge (Holloway) and is outside the learning approaches of most citizens (McBean and Hengeveld). These technical responses have contributed to a public that is concerned about climate change, yet resistant to translate this concern into action, especially concerning energy conservation (Kasemir, Swartling, Shule, Tabara and Jaeger; Plotnikoff, Wright and Karunamuni).

Citizen engagement is critical to ensure equitable responses to climate change. Currently, climate change approaches are incapable of recognizing differential impacts, the inherent power imbalances in responsibility taking and decision-making, the marginalization of local knowledges, and the unequal risks based on social and geographic locations. Turning a feminist lens on climate change policies and strategies, and in particular viewing the changing climate from rural women's experiences,

offers some direction for dismantling imbedded biases, increasing understanding of the full range of gender-based inequities, and encouraging the participation of women who are the most vulnerable to the impacts of climate change.

Changing Climate in Rural Communities

Across the vast, sparsely populated, rural landscape of Canada, are communities in the throws of a wide range of social, economic and environmental changes. There has been job cuts in the forestry, fishing, mining and food producing sectors, a downsizing of government support, and a growing gap between the "haves" and "have-nots" (Shortall and Bryden). Family farms are on the decline (Sumner), resource communities are experiencing boom-and-bust cycles of growth, stagnation and decline (Reed), and rural communities dependent on multinational manufacturing and industries have lost in aftermath of free trade and restructuring by losing plants to lower wage communities (Winson and Leach).

The prospect of climate change increases the vulnerability of these rural communities, consequently threatening the very foundation of Canada's social, economic and environmental well-being. Already in rural and remote parts of Canada reports of floods, forest fires, drought, shrinking glaciers, and shorter ice seasons are indicators of a changing climate (Lemmen and Warren). Agricultural production, crucial for feeding Canadians, has had signs of things to come. The extreme drought and heat that plagued much of Canada in 2001 resulted in some prairie provinces having lowered crop yields and threatening the availability of water and feed for livestock (Lemmen and Warren). And in Canada's north the impacts of a changing climate has resulted in shorter winter seasons and unpredictable ice conditions that has compromised the safety of traditional hunting and fishing practices, has undermined traditional knowledge of living with the land and resources, and made ice roads unreliable (CCME).

Clearly, the remaking of rural Canada has been occurring in a manner that raises uncertainty about the agency of rural people, and the ability to have equitable input into local, regional, and national policy and strategic development. Climate change is only increasing the likelihood of conflict in rural areas that will make it extremely difficult for working collectively toward viable solutions (Pendergraft). Too often, all levels of urban-centric policy development is based on assumptions that rural communities are stagnant, homogeneous, pastoral places empty of multiple identities, oppressions or acts of resistance (Sachs 1996) where everyone lives in harmony with nature (Li 1996) and where there is a presumed lack of difference and implied consensus and agreement on practices and ideology (Abowitz). In fact, rural areas are places where dominant groups exercise control over meaning (Dupuis and VADERGEEST), there are increasing inequalities

(Scott, Park and Cocklin), and where issues of most concern to women are often subservient to community issues (Li 1996).

Ensuring an equitable policy process, and in particular a rural policy process, requires recognition of the power relations that allow the structural exclusion of women (Shortall). To confront power relations that exclude the experiences of rural women it is imperative to shape an understanding of the gender and rural dimensions of climate change.

Rural Women and Climate Change: Policy Considerations

Researchers argue that rural women, particularly in the South, will be especially vulnerable to the effects of climate change (Denton; Dankleman). In wealthier societies, like Canada, there is likely to be less gender differentiation from the effects of climate change (Skutsch). However, in a context where changes in rural Canada has led to the reorganization of government work and plant closures, where the necessity of off-farm labour and relocation has increased women's isolation, limited women's ability to find paid work, and reduced access to needed social services and health care (Leach; Shortall), it can be concluded that women will be unjustly exposed to the pressures of climate change.

Margaret Skutsch argues addressing rural women and gender concerns in climate change policies will increase the efficiency of climate change responses, and ensure that work toward gender equity will not be threatened. Clearly, feminist research and advocacy on climate change in general, and rural women in particular, needs to do more to develop comprehensive knowledge to direct equitable and gender-sensitive policy development, as well as to contribute to energy efficiency, and mitigation and adaptation strategies being planned to respond to climate change. Situating Skutsch's argument within a Canadian context, and recognizing that there is no one rural women's experience, the following discussion outlines how rural women, already experiencing disparity, will be further vulnerable if policy development in areas as diverse as health, agriculture, natural resources, energy conservation, technology, and transportation continue to neglect gender and rural inequalities.

Health

Health Canada's Climate Change and Health Office predicts that the increased smog episodes, heat waves, water and food borne contamination, vector borne diseases, stratospheric ozone depletion, and extreme weather events that result from climate change will compromise the general health and well-being of Canadians. The impact of these changes will be adversely experienced by the most vulnerable of our society. Most affected will be

the elderly, children, immuno-compromised individuals, and the poor and Aboriginal populations (see also Lemmen and Warren) with the elderly and women experiencing the most morbidity from heat waves (WHO). And undoubtedly, "some communities will be more vulnerable than others, for geographic reasons, due to health status or because of limited resources" (Climate Change and Health Office 1).

Women who live in rural areas already have limited health resources as current systems for health information are poorly coordinated and inadequately promoted, and

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health services are often infrequent, irregular and limited (Centres of Excellence for Women's Health). The ongoing lack of health services, combined with state-introduced cutbacks, means that rural women have even more responsibility for caring for dependents, both young and old (Winson and Leach). Combined with the increased levels of illness, as well as responding to food shortages, nutritional problems, and food and water shortages because of climate change women's burden will likely increase exponentially (Villagrasa; Wamukonya and Skutsch).

Agriculture Production

Agricultural sectors are seeing the impacts of warmer temperatures, moisture loss, and extreme weather conditions affecting soils, livestock, pests and weeds, and water resources (Lemmen and Warren). Despite the extreme vulnerability of agriculture to climate change, scientists continue to construct debates in such a way as to marginalize other forms of situated knowledge and practices about farming (Holloway). Lewis Holloway argues that to respond to climate change

recognition must be given to the way that the environment is constructed in locally specific ways by farmers through their experiences of physical and biological processes understood within particular social, economic and cultural contexts. (2030)

Women, while active in all aspects of agriculture, are even more marginalized and underrepresented in decision-making about agricultural policy and global issues (Angeles). Therefore, scientists and climate change adaptation specialists must also strive to include the situated

experiences of rural women in policies and strategies. Carolyn Sachs (1996) argues that the concept of situated knowledges proves particularly useful when grappling with issues and questions related to rural women. Including the situated knowledges of rural women provides access to disaggregated information into the decision-making process within the household on farm production choices and strategies, offering a rethinking of how local knowledge can be used to organize alternative approaches to agriculture (Feldman and Walsh).

Natural Resource Management

In Canadian society, rural women's dependence on natural resources is practically invisible. While fewer women work directly in natural resource extraction, women and their families' livelihoods depend on their labour in after-extraction processing, and in most of the general support services in local communities. The invisibility of women's role in natural resources, compounded by women's relatively low organizational status in North America natural resource management, has meant that women have had little influence in decision-making and in public forums (Davidson and Black). For example, in the Atlantic fisheries women have been excluded from decision-making about their future (Christiansen-Ruffman) and in British Columbia forestry

planning initiatives and transition programs first segregated issues into gender categories and second assign the greatest need for and support of interest attributed to men. (Reed 190)

Including women's perspectives in natural resource management provides access to a "wholistic approach to problems—considering family, community and environment—as their starting point" (Christiansen-Ruffman 60) and a broader understanding of how land and resource use is linked to daily life of production, reproduction, and community caregiving (Reed). As climate change responses in rural areas will involve comprehensive land and resource use solutions, gender-sensitive approaches in the design and implementation are important for enabling populations to survive inevitable changes in the climate (Skutsch).

Household Energy Conservation

Canada's climate change plans are challenging citizens to reduce their greenhouse gas emissions by one tonne by taking actions at home, at work, and on the road (Government of Canada 2005). Women, as primary caregivers of the household, will be placed in a position to reduce household energy consumption and teach children how to conserve energy. However, the feminization of poverty has resulted in single women, senior women, and women-

led families spending at least 20 per cent of their income on heating and electricity, especially since poverty is linked to less energy-efficient housing and reliance on older inefficient appliances (Clancy and Roeher). Specifically, in rural areas, women have unique housing issues related to affordability, suitability, maintenance, and property management that have been ignored in housing policies (Steele). The only conclusion that can be drawn from this situation is that if women are being put in a position to contribute to stabilizing the levels of greenhouse gases in the atmosphere than women should clearly be in a position to be active participants in determining energy conservation policies and strategies.

Technology

Strategies to respond to climate change are currently not about reducing production and economic growth, but aimed toward the adoption of clean, green, and renewable energy technology. Historically, households, farms and communities in rural areas have experienced that advances in technology have uncoupled production from employment (Reed) and increased women's domestic workload (Riney-Kehrberg). Gender imbalances related to technology had "clearly done more to alleviate the workload in the barn than in the farm" (Fleming 32) confirming that "technology merely served as a tangible, countable symbol of women's secondary status on the family farm" (Jellison 183). This trend continues today where technology development is still aimed toward men, as they are considered the decision-makers and users of the technology (Skutsch). Women's role in technology is largely overlooked resulting in many technological innovations that are inappropriate for women's lives (Cecelski). Working toward gender-sensitive policies in technology development have the potential to include women as active participants and promoters of sustainable technologies and challenge dominant technological practices (Milne 2003b).

Transportation

Climate change will likely affect roads, rail, air, and water transportation corridors (Lemmen and Warren), while responding to the Kyoto Protocol will change the way we currently use and design transportation systems. Rural areas already have significant transportation problems. Most areas are not serviced by public transport, and travel is often on treacherous roads that may be unpaved (Reed). Rural women have to travel long distances to access employment, healthcare, and other necessities. There are extreme financial, emotional, and social costs of living without adequate transportation services. For example, being away from the family, especially during a health crisis, where basic travel costs may not be covered is very stressful (Centres of Excellence for Women's Health). Transportation is already an obvious barrier to

rural women's equality and will need to be considered in climate change policy development.

Conclusion: Engaging Rural Women in Climate Change

Climate change is not gender, class or geo-political neutral. Therefore, all international, national, and local policies and strategies need to consider equitable approaches to reducing greenhouse gases and responding to changes in the climate. To ensure a more gender-sensitive approach there is a need for more women on the various commissions within the climate change policy development process, and gender considerations need to be included in future policy formulations and activities (Villagrasa). Specifically, as Njeri Wamukonya and Margaret Skutsch argue, rural women should be targeted and included as active participants in policy decision-making, mitigation activities, vulnerability studies, projects for adaptation, technology transfer and capacity-building.

Engaging rural women in climate change policy and strategy development will require working through conflicts, diversity, and entrenched interests. While some rural women are very active in maintaining the status quo in rural areas and frequently fight environmental activism that threatens traditional ways of life (Brandth and Haugen; Reed) other rural women are at the forefront of environmental activism and social change (Sachs 1994). However, there is also precedence in rural areas of women working across vast differences, learning from each others experiences, and working collaboratively in the interests of the community. As Margaret Grace and June Lennie argue, including rural women in problem-solving and decision-making processes provides alternative and innovative perspectives.

The diversity of rural women's personal identities, skills and knowledge, and in terms of the wide range of issues they bring to public forums, is one of their greatest strengths and needs greater recognition ... rural women bring a holistic and future-oriented perspective to complex social, environmental and economic issues. We would argue that such a perspective is necessary in our rapidly changing world where innovative solutions to problematic issues is urgently needed. (366)

There is little doubt that climate change is the most complex social, economic, and environmental problem that will be faced this century. Including rural women in the climate change policy and strategy process not only ensures equity, innovation, and access to situated knowledges, but it goes a long way toward ensuring the very health of rural communities and peoples across the planet.

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