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Towards a Green Economy in Canada

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Abstract

The paper examines mobilization around the green economy in Canada. Based on a content analysis of media and organizational documents in BC and Ontario, the paper compares the framing strategies of various stakeholder groups, including environmental non-government organizations (ENGOs), social justice groups, labour unions, governments at the federal, provincial and municipal level, in order to determine why the green economies in BC and Ontario progressed differently within the same historical period. The findings point to four main frames used by various stakeholders that advocate for a green economy, including Eco-Bridging, Eco-Equity, Eco-Opportunity, and Eco-Urban Politics of Sustainability. The paper discusses these overlapping, but often competing frames as well as the opportunities for uniting diverse frames in order to increase the impact on policy outcomes in both regions. The paper concludes by pointing to the need for a new master frame to link environmental and social justice movements, to reflect the social, economic and environmental dimensions of an equitable and robust green economy. The paper argues that a Social Determinants of Health framework is well-suited for linking these dimensions because it highlights the root causes of inequities, including how these manifest more acutely in some populations than others, and underscores the link between environmental outcomes and social well-being.

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Introduction

Debates about transitioning to a green economy often focus on the dilemma of creating and sustaining jobs versus protecting the environment, with opponents highlighting concerns about the potential negative economic impact of a low-carbon economy, including job losses and rising energy prices. Yet, investment in a green economy in Canada, including renewable energy such as solar and wind technology, has the potential to create thousands of jobs while also serving to reduce greenhouse gas (GHG) emissions. While Canada needs to substantially reduce GHG emissions, the country lacks a robust national clean energy strategy, despite growing evidence that the green energy sector creates more jobs than traditional sectors, including the Canadian oil sands (Clean Energy Canada, 2014). At the same time, certain provinces in Canada have implemented green economic policies that are robust, while others are less advanced in this area. What are the factors that shape the development and implementation of green economic policies? The development of a green economy in Canada involves social processes as well as technical and political challenges.

Based on content analysis of organizational, government and media documents related to the green economy in British Columbia (BC) and Ontario, the paper uses a comparative case study of green economy policies, including governance and investment policies in green workforce initiatives and training, and social movement advocacy for green jobs in these two regions where there is broad public and government support for innovation and investment in a low carbon-emissions economy. Policy discourses are analyzed to determine how the "environment versus the economy" rhetoric impacted their environmental and economic development policies differently. First, the paper examines how social movement organizations and other stakeholders frame the mobilization around the green economy. The role of stakeholder groups, including environmental non-government organizations (ENGOs), social justice movements, labour, governments at the federal, provincial and municipal level, and the media are discussed to determine why the green economies in BC and Ontario progressed differently within the same historical period. Particular attention is given to how frames were used by diverse stakeholders to further their advocacy for a green economy.

The findings point to four main frames used by various stakeholders that advocate for a green economy: (1) Eco-Bridging, which emphasizes how a green economy can address the deleterious consequences of climate change; (2) Eco-Equity, which stresses the importance of social and climate justice; (3) Eco-Opportunity, which points to the capacity of a green economy to support green workforce training and living-wage jobs; and (4) Eco-Urban Politics of Sustainability, which underscores the unique role cities can play in mitigating climate change as incubators for green economies through coordinated local and regional action. The paper discusses these overlapping, but often competing frames as well as the opportunities for uniting diverse frames in order to increase the impact on policy outcomes in both regions.

The paper concludes by pointing to the need for a new master frame to link environmental (EJ) and social justice (SJ) movements, to reflect the social, economic and environmental dimensions of an equitable and robust green economy. The paper argues

that a Social Determinants of Health (SDoH) framework is well-suited for linking these dimensions because it highlights the root causes of inequities, including how these manifest more acutely in some populations than others, and underscores the link between environmental outcomes and social well-being.

Climate Policy in Canada

The United Nations Framework Convention on Climate Change (UNFCCC) seeks to protect a sustainable degree of social and economic development by stabilizing greenhouse gas (GHG) emissions that threaten ecosystems and food security. Member nations should act to protect the climate system on the basis of "common but differentiated responsibilities", and developed nations should "take the lead" in addressing climate change (UNFCCC, 2005, Article 3.1). In the late 1990s, Canada played a leadership role in the development of the Kyoto Protocol, an international agreement to address the effects of climate change that commits signatories to binding reduction targets for GHG emissions. Under a majority Liberal government, Canada became a signatory through ratification by Parliament in 2002.

A 2006 report on the Economics of Climate Change by Lord Nicolas Stern argued for national investments of one percent of global GDP to build the infrastructure needed to develop a "Green Economy". By 2008, the term *Green Economy* emerged in policy discussions that concerned environmental conservation, reductions in carbon emissions and "green" economic development, such as sustainable energy production and use, green construction, and eco-tourism. The period from 2007 to 2009 was particularly important for climate change policy in Canada as Canadian Provinces took leadership in operationalizing commitments to Kyoto through the reduction of GHG emissions as well as the development of a "green economy" and "green jobs". This involved policy development at multiple scales, including international, provincial, regional and local, as well as with multiple stakeholders, from government and business to labour and other civil society organizations.

In 2007, the provinces of BC and Quebec joined the Western Climate Initiative (WCI), an international "non-profit corporation formed to provide administrative and technical services to support the implementation of state and provincial greenhouse gas emissions trading programs" (WCI, 2015). At the time, Ontario also expressed interest in joining, but as of April 2015, the Board of Directors for WCI, Inc. includes officials from the provinces of Quebec and BC, and the State of California. In 2007, BC launched its *Climate Action Charter*, which was followed in 2008 with the implementation of the BC Carbon Tax. In 2009, Ontario launched its *Green Energy and Green Economy Act*. In December 2009, Canada and the world looked to the United Nations Climate Change Conference, known as the Copenhagen Summit, in anticipation of an agreement for climate change mitigation beyond 2012.

Hopes for a strong commitment to addressing climate change were dashed as the 2009 Copenhagen Accord's targets were non-binding. The failure to reach a binding agreement in Copenhagen is partly due to the impact of the global economic crisis of 2008, but also

to geo-political challenges between member countries. In response to the global economic downturn, politicians, think tanks and fossil fuel industry lobbyists reframed debates away from environmental and social justice to focus on economic concerns. Once again the mantra "it's the environment *or* the economy" became the norm (Gunster, 2011; Severin, 2014; Wahlström et al., 2013). The shift away from environmental to economic concerns was played up in media stories, despite increasing evidence of the merits of a green economy to create jobs as well as protect the environment (Cartwright, 2009; Pearson, 2007). In Canada, a Conservative minority government with deep ties to the fossil fuel industry, sought to extricate Canada from its commitments under the Kyoto Accord. They opposed Kyoto at the 2007 Climate Change Conference in Bali, citing global GHG emissions targets could not be met as long as China and India were exempt from the agreement, and that this created an un-level playing field for countries like Canada who would have to bear the cost of retooling their economies while manufacturing jobs were already being lost overseas due to labour competition.

Social Movements and Political Opportunities

Meanwhile, in recent years, the relationship between the state and civil society groups advocating for more robust climate change policies is changing; governments and policy makers are less willing to engage with environmentalists and other key stakeholders when developing policy (Boyd, 2003; Harrison, 2007). Recent changes in the political context in Canada – including the failure of the Kyoto Accord and other international climate change agreements, the renewed focus on resource extraction and oil and gas exports by federal and provincial governments, and the curtailing of environmental protection – has disenfranchised the civil society from the political process, and resulted in a "policy monopoly" on the part of the government and decreased access to policy allies for environmental organizations and other key stakeholders (Meyer, 2003).

In the face of changing opportunities at the state level, the capacity of non-governmental organizations and other levels of government to influence federal policies is waning, and some scholars suggest that these sectors must revitalize and adapt to the changing political context in order to reassert their influence (Gottlieb, 2005; Robinson, 2013; Shellenberger and Nordhaus, 2004). These scholars argue that the environmental movement in particular has largely failed in terms of changing policies and regulations and ensuring pathways to ecological, social and economic sustainability, especially in light of the growing climate crisis (Giddens, 1994, 2009; Shellenberger and Nordhaus, 2004). How have organizations and stakeholders responded to the lack of political opportunities at the federal level for implementing a robust climate change policy? Across Canada, environmental leaders and other stakeholder organizations, including local and provincial governments are adapting to these changing political opportunities by adopting new frames that can potentially unite actors and organizations across movement and policy sectors (Klinsky, 2013).

Adopting new frames of social and environmental justice around the common goal of mitigating climate change has the capacity to increase the influence of social movements and policy makers in relation to climate change policies, in the face of the increasing

closure of political opportunity structures (Gottlieb, 2005; Obach, 2004; Robinson, 2013). Social movements play a key role in bringing diverse stakeholders together under a common green economy frame focused on environmental and social justice.

Anthony Giddens, for example, argues that the production and reproduction of social and economic systems is shaped by the interaction between institutions and actors at multiple scales, including global, national, state, regional and municipal levels (Grabb, 2007). At a macro-level, Giddens' theory is well suited for understanding issues of environmental justice as it interrogates power in systems of social inequality, including the role of the state, class and class structure in shaping prospects for inequality in future societies (p. 173). Giddens promotes the 'democratizing of democracy' by creating structures to better engage civil society through social movements. He points to the critical role of "citizens groups and other organizations that exist outside of the formal economic and political realms" (Grabb, 2007, p. 187) for influencing public policy, particularly as it relates to climate change.

Framing Protest: Collective Meanings and Social Movements

A key role for social movements is framing the way that issues are understood in order to resonate with political elites and policy makers and mobilize public action. Social movement scholars have emphasized the importance of interpreting opportunities and constructing grievances for mobilizing support for a movement's goals (Benford and Snow, 2000; Goffman, 1974). As a way of moving beyond structural or static explanations of contention, many social movement scholars have pointed to the role of *frames* – the construction of meaning – in shaping collective behavior and for linking previously disconnected movements through common messages. One of the most important framing strategies utilized by social movement actors is the creation of common messages that link together ideologically similar, but previously disconnected groups to mobilize broader support. Social movement organizations utilize "master frames" that resonate broadly, allowing them to move beyond single-issue, ideological-driven causes and build networks across diverse groups (Benford and Snow, 2000; Carroll and Ratner, 1996).

In the context of climate change, social movements, including those that mobilize for environmental and social justice, can potentially play a key role in shaping policy by constructing frames that unite diverse groups through master frames that emphasize the link between environmental problems and social well-being. Scholars have pointed to the link between environment and human health and the threat to societies' well-being from climate change. Radical feminists like Donna Haraway (1992) were the first to articulate how the reproductive (or private) sphere, which supports the productive (or public sphere), innately ties the health and wellness of humans and society to their environments. Eco-feminists highlighted the dangers of subordinating the reproductive sphere to the rise of global capitalism and neoliberalism, including the "re-privitization, commodification, and increasing deregulation of all things relating to social wellbeing, including the assurance of a liveable wage, affordable healthcare, decent education, breathable air, and clean water" (Di Chiro, 2008, p. 278). More recently, scholars

focusing on the social determinants of health (SDoH) illuminate how social factors, such as employment and income, social networks and supports, education, neighbourhood structures and institutions and physical environment shape individual health and well-being (Bernauer and Koubi, 2009; Kawachi, 2000; Marmot et al., 2008; Raphael, 2009; Tarlov, 1996; Wilkinson et al., 2010).

At the same time, the EJ movement has focused largely on the ecological impact of the productive sphere, including the link between economic systems and climate change. The environmental movement has been critiqued for ignoring the social impact of environmental problems and engaging in narrow discourses around what should be considered as the environment, and hence, what is worth advocating for or protecting (Clapp and Dauvergne, 2005; Giddens, 2009, Schlosberg, 2013). Lessons learned from environmental policy agendas like the Western Climate Initiative highlight the need for collective action and broad, multi-scalar agreement on the purpose and benefits of policies like a carbon tax if they are to be successful. The magnitude of support needed to implement such policies implies a social process as well as technical and political challenges (Klinsky, 2013).

Given the context of increased environmental harm and the unequal distribution of environmental risk, the outcomes of EJ movements are contingent upon the ability of social justice and other social movement organizations – particularly labour unions – to overcome ideological constraints and strategically link frames across movement sectors. By synthesizing environmental, labour and social justice frames, organizations can draw attention to the growing threats to economic and social stability from increased environmental pollution and degradation and bring together disparate networks by building a robust broad-based movement to combat these issues and shape policies around a just sustainability. One potential area for uniting these groups is the transition to a green energy economy and investment in green jobs and green workforce training. The transition to a green economy can be achieved through the creation of green manufacturing jobs and investment in alternative energy sources and green workforce training. Transitioning to a green economy has the dual benefit of creating a "high road" clean energy economy based on skilled, well-paid labour, and protecting the environment from further degradation by shifting away from a carbon-based economy (Deitche, 2010; Gough, 2010; Gould and Lewis, 2009, Severin, 2014).

Despite the economic and environmental opportunities of green economic growth, the green jobs/green energy economy has lacked prominence in the Canadian political landscape over the past decade. This may be due to the influence of a Conservative federal government who has largely ignored the prospects of a green economy in favour of fossil fuel development. At the same time, Canadian movements failed to frame a green economy as "minimally plausible and culturally resonant" beyond the local and eventually some provincial levels (Amenta et al., 2010). Some social movement scholars argue that we need more research on external forces that shape the discursive field of Canadian environmentalism (Haluza-Delay et al., 2011). How can the concept of bridging frames move from rhetorical to concrete policies and social change? What are the motivations behind the framing of green jobs, who influences the terms of

participation in policy development, how are policy options identified and what influences the ensuing political debate? (Kouri and Clarke, 2014)

We argue that in order to move from rhetorical to concrete policies that foster green jobs and green energy economies, framing must be adjusted to resonate beyond eco-justice movements to a variety of stakeholders – namely government, business, labour and the broader public (as influenced by the media). We hypothesize this can best be accomplished by a) incorporating risk/externalities into framing around economic and environmental sustainability through rigorous cost-benefit analysis; b) linking the concerns of social and environmental justice groups under a common social determinants of health (SDoH) framework that illustrates root causes of inequities and how these manifest more acutely in some populations than others; and c) that not addressing these inequities will result in *increased environmental degradation and social costs.*

Methods and Models for Framing Eco-Justice and the Green Economy

Framing is defined as "a dynamic process by which a movement and its struggle for social change is connected with a larger set of cultural values, beliefs and practices… it encompasses the culture and even the language that is used by a movement" (Novotny, 2000, p. xviii). This is reflective of Giddens' theory of structuration where the production and reproduction of social and economic systems is based on the interaction between structure and agents. Wahlström et al.'s (2013, p. 104) model of framing political movements builds on Snow et al.'s seminal work (1986) and involves three dimensions: a) diagnostic framing - how movements define problems; b) prognostic framing (devising solutions to problems; and c) motivational framing, mobilizing new support for the cause. This model is similar to Kingdon's "streams" model of policy agenda-setting, but arguably, precedes it because political movements do not always successfully impact policy making. Indeed, "issues do not come to the attention of policy makers as 'objective' problems whose meaning is established and uncontested", and the uptake of an issue involves a complex process of evaluating its salience within the larger political agenda (Pralle, 2009, p. 785). Kingdon breaks down this process into three streams.

First, the problem stream is how issues come to the attention of policy makers via indicators, feedback on existing programs and focusing events, which are then contested. Second, the policy stream occurs when solutions are generated by specialists and experts to address the salient problems of the day (and the feasibility and desirability of the solutions impact whether the issue makes it to decision-makers' agendas). Third, the politics stream focuses on national mood, organized political forces (e.g., interest groups) and administrative or legislative turnover, which may shape agendas and the selection of alternatives (Pralle, 2009, p. 784). Similarly, social movement scholars point to the importance of organizations to deploy frames that resonate with political elites and the political agenda in order to increase the chance that their claims will be heard and acted upon (Diani, 1996; Meyer, 2004; Robinson, 2013).

Diagnostic framing	Defining problems →→→	Problem stream (indicators, program feedback, focusing events)
Prognostic framing	Devising solutions →→→	Policy stream (feasibility and desirability of solutions proposed)
Motivational framing	Mobilizing support →→→	Politics stream (national mood, interest groups, players, alternatives)

Wahlström et al.'s model of framing political movements can be used to identify how EJ and SJ movements engage in problem solving. Kingdon's "streams" model can be used as a lens to examine how policy makers react to EJ and SJ movements through the process of political agenda-setting.

Comparing Cases: The Development of Green Economic Policies in British Columbia and Ontario

The paper uses data from a case study of British Columbia (BC) and Ontario to analyze the trajectories and outcomes of green economic policies in both places. Grounded by Anthony Giddens' theory of structuration,[1] research examined the mobilization around green jobs and green workforce training by social movement organizations, including labour unions and environmental organizations, as well as identified policies and practices around investment in green jobs and workforce training by governments and policy makers in BC and Ontario in response to the climate crisis.

Data sources include scholarly publications, government and other policy reports (e.g., from ENGOs), advocacy and labour organizations' newsletters and blogs, and popular media sources. 2007 was a pivotal year in the development of green economic policies in Canada as it marked the start of the Economic Crisis of 2007/08 as well as the formation of the Western Climate Initiative, including the state of California and the provinces of BC and Quebec. The York University and Queen's University Library databases were searched from 2007 to 2015 using the following key words: social in/justice; environmental/eco- justice; climate justice; good green jobs; green skills/training; economic stimulus; research; Leadership in Energy and Environmental Design (LEED); clean-tech; Western Climate Initiative; decoupling; distributed energy; clean energy technology/ manufacturing/ research/ infrastructure; alternative energy; renewable energy generation; solar energy; wind energy; photovoltaics; fuel cells; biofuels; smart-grid technology; grid conversion; carbon sequestration; community choice legislation; public interest; environmental activism; trade union activism; risk; frames; knowledge production; policy; policy development; evidence; differentiation; re/distribution; vulnerability; inequality; "triple-jeopardy"; impacts; adaptation.

[1] Structuration: that the production and reproduction of social and economic systems is based on the interaction between structure and agents at multiple scales (global, national, state, regional, municipal and community).

The search identified 17 peer-reviewed articles related to the Green Economy in BC (Bramley et al., 2009; Burch et al., 2013; Deitche, 2010; Gunster, 2011; Haluza-Delay and Fernhout, 2011; Klinsky, 2013; Lee, 2010; Lee and Card, 2012; Lee, Legg and Rees, 2013; Legg, 2011; Nugent, 2011; Peyman, 2010; Robinson et al., 2007; Robinson and Stoddart, 2015; Severin, 2014; Thompson and Duffy, 2010; Tindall, Robinson and Stoddart, 2015); 11 grey literature references; and five media references (there were many others, but only five were selected as sources as they best represented the themes that emerged from the search).

The search identified seven peer-reviewed articles related to the Green Economy in Ontario (O'Connor, 2010; Haluza-Delay and Fernhout, 2011; Hrynyshyn and Ross, 2011; Klinsky, 2013; Krupa et al., 2013; Nugent, 2011; Winfield and Dolter, 2014); 5 grey literature references; and 13 media references (there were many others, but only thirteen were used as sources as they best represented the themes that emerged from the search). Articles relating to the Canadian context generally also included 12 grey literature references and 13 media references.

The documents were analysed using Wahlström et al.'s model of framing political movements to identify how EJ and SJ movements engage in problem solving. Evidence of Kingdon's "streams" model was used as a lens to examine, where possible, how policy makers react to EJ and SJ movements through the process of political agenda-setting.

Framing Green Jobs

A literature review was conducted to better understand the concept of framing in environmental activism as well as identify the specific frames used by social and environmental movements to move the Green Jobs agenda forward. The search was narrowed to the 21st century, though a few seminal works from the 1970s were also reviewed for historical context and theoretical foundation (Carroll and Ratner, 1996; Diani, 1996; Esping-Andersen, 1999; Giddens, 1994; Goffman, 1994). From the academic literature, 40 articles pertained to Inequality, Injustice and Agency; 30 to Political Economy and Governance; 17 to Green Collar Economic Development; and 11 to Frames, Discourses and Agenda Setting. What follows is a summary of the major themes discovered in the analysis of frames used by social and environmental scholars and advocates.

According to Kouri and Clarke, green jobs have been framed by three rhetorics: *calamity* (oncoming environmental crises), *justice* (workers deserve jobs), and *opportunity*, and these "serve as a collective symbol and iconographic metaphor for the links between economy and the environment" (2011, p. 223). Indeed, an examination of how green economies are framed in the EJ and SJ literature reveals three major themes similar to calamity, justice and opportunity: Eco-Bridging; Eco-Equity; and Eco-Opportunity. However, the Eco-equity/justice frame extends beyond the economy into what eco-feminists refer to as the "reproductive sphere", people's private lives that support labour and production (Di Chiro, 2008; Katz, 2001; Haraway, 1992). A fourth frame, dubbed Eco-Urban Politics of Sustainability, has been added because of the strength of World

City movements to "secure urbanism and resilient infrastructure" (Hodson and Marvin, 2007) across the developed world and the unique characteristics of cities' vulnerabilities to climate change.

The first of these major frames, "Eco-Bridging", involves two dimensions: Greening society and sustainable development; and expanding the narratives of climate change to include real life stories in time and space. Greening society frames are used to demonstrate that the concept of a green economy is too vague and fails to account for the some of the consequences of the current economic system, including increased poverty and inequality (Fulai et al., 2011; Holdren, 2006; Tanner and Allouche, 2011; Winter and Moore, 2013; Wiseman and Edwards, 2012). The term "green washing" is used to describe how traditional economic theory founded on unlimited growth can be hidden within the framing of a green economy. For example, Vancouver's goal to become the "greenest city in the world" by uniting economic growth with green technologies has been criticized by prominent environmentalists including "U.B.C. professor Bill Rees, developer of the 'ecological footprint' concept, [who] argues that economic growth and environmentalism cannot happen in tandem, an idea that opposes the basic tenets of western capitalism" (Barett, 2009). Sustainable development has three policy pillars that need to be integrated – economic, environmental and social. More work is needed to identify the risks of not implementing political and social innovations to address climate change, including what kind of policies are needed to move beyond simply tinkering with the status quo. The most radical of the calamity rhetoric involves advocates for entire ecosystems and the rights of non-human interests and a halt to the reproduction of unsustainable practices (Roberts and Parks, 2007, 2009; Schlosberg, 2013; Walker, 2009, 2012; Wanner, 2014).

The second subset of Eco-Bridging – expanding the narratives of climate change – is concerned with naming socio-environmental futures, conflicts and struggles and views climate change as a question of democracy (Gough, 2006; Jay, 2013; Rootes, 2013; Schlosberg 2013; Sharzer, 2011; Swyngedouw, 2010; Teelucksingh and Poland, 2011; Walker, 2009, 2012; Wanner, 2014). This frame encourages alliances between rights movements, including civil, indigenous, solidarity, urban environments, smart growth, energy development and jobs, women and youth, food justice and local food movements. Proponents of the eco-bridging frame argue that the "enemy" of climate change is externalized and disembodied, and thus new stories are needed to "put a face" to climate change in order to mobilize action.

> "Innovative environmental justice and reproductive justice coalitions articulate people's concerns about their families' and communities' access to *social reproduction* – the maintenance and sustainability of everyday life and earthly survival made all the more difficult by global economic and environmental crises" (DiChiro, 2008, p. 294).

From populist politics to elevating local issues to universal threats, this involves articulating the external side-effects of global, neo-liberal capitalism.

In the Canadian context, scale and accountability within the environmental movement are also lacking. Most movements are local or regional in nature and are not consulted in the development of provincial and national environmental policy (Jay, 2013). This is problematic because local environmental campaigns "are usually unable to realize their goals because those who have the power to make decisions that affect the local environment are not themselves local" (Rootes, 2013, p. 96). The only national scale organizations are ENGOs who, since the 1980s, have become more reliant on foundation moneys to fund their operations. This has led to a lack of transparency and top-down leadership structures, a phenomenon that has eroded the democratic process because "activists, members of the public and residents of directly affected communities have no direct influence at all if they're not occupying staff positions [in ENGOs]" (Jay, 2013, p. 2). There is a need for a democratic venue to mobilize environmental movement members, perhaps a national, government funded, non-partisan organization accountable to Parliament.

The second major frame, "Eco-Equity", can be further sub-divided into three sub-frames: (1) Inequity of distribution, which stresses human rights, social and environmental justice and public health approaches; (2) The externalisation of social and environmental costs resulting from neo-liberal economic policies based on unbridled growth and government deregulation; and (3) The link between cultural and institutional structures and inequity, including the importance of participatory democracy. The inequity of distribution frame attempts to better integrate the three policy pillars. It points to the class and race-based uneven distribution of social and environmental "bads" and increased health risks as a consequence (DiChero, 2008; Fulai et al., 2011; Novotny, 2000; Schlosberg, 2013; Tanner and Allouche, 2011; Teelucksingh and Poland, 2011; Roberts and Parks, 2009; Walker, 2009; Wanner, 2014; Wilkinson et al., 2010). Scale and structural effects are multiple, calling for interdisciplinary approaches to marry political economy with health geography/social epidemiology to better understand the historical, economic and social complexities that impact people's everyday environments. The inequity of distribution frame highlights the concept of 'where we live, work and play' as a way of making connections between bodies, neighbourhoods, water, food, air and workplaces. Human rights movements have advocated for restitution to those harmed by social and environmental injustices, highlighting aspects of social relations (the ontology of justice), and forging alliances around women's reproductive rights, children's health, indigenous rights, and labour (Amenta et al., 2010; DiChero, 2008; Gough, 2010; Walker, 2009). These frames work best in legal settings and demonstrate:

> "when the environment is connected with longstanding grievances in communities as well as cast in such immediately understandable terms as racism, rights, or injustice, involvement with the environment is more readily engaged by groups in these communities" (Novotny, 2000, p. 4).

The second sub-frame, the externalisation of social and environmental costs, is more technical in nature, calling for comprehensive planning of infrastructure development that considers environmental costs. This type of frame points to the need to develop national policies and standards to guide decision-making at local scales, including sustainable development indicators (Bernhagen, 2012; DiChero, 2008; Jackson and Victor, 2013;

Jordan et al., 2003; Lehtonen, 2008; Rootes, 2013; Schlosberg, 2013; Tanner and Allouche, 2011; Roberts and Parks, 2009; Walker, 2009; Wanner, 2014). Stakeholders who deploy this frame include feminists, Marxists, green parties, and unions, who call for equity and restorative justice as well as the necessity of understanding the impact of economic development on the reproductive as well as the productive spheres of society. The scale of the reproductive, or private sphere, is the home. The health of the private sphere is greatly influenced by the social safety nets provided by governments, such as unemployment insurance, pensions, parental leaves, early childhood education and care, education and healthcare, as well as environmental policy (e.g., water, ground and pollution control). The productive, or public sphere, is the economy and political arenas. The sub-frame of the externalisation of social and environmental costs strives to demonstrate how the health and functioning of the reproductive sphere is necessary to economic well-being because it supports the productive sphere. Neo-liberal political economies have tended to focus solely on the productive sphere with the view that as long as the economy is healthy, the private sphere will be supported. This has not proven to be the case as growing inequities in wealth and power lead to an uneven burden of social and environmental costs that have class, gender and race dimensions (Esping-Andersen, 1999; Gosine and Teelucksingh, 2008; Wilkinson and Pickett, 2010).

The third Eco-equity sub-frame examines the link between cultural and institutional structures and social inequity and highlights the importance of participatory democracy. Institutional structures like government, corporations and financial institutions are well connected and have access to professional services (Bernauer and Koubi, 2008; Danson, 1998; Fulai et al., 2011; Gough, 2010; Rootes, 2013; Schlosberg 2013; Sharzer, 2011; Tanner and Allouche, 2011; Walker, 2009; Wanner, 2014; Wilkinson et al., 2010). The question becomes whose interests are served – elites or broader society? The challenge for SJ and EJ movements is how to generate "scale shifts" to escalate their local concerns when they are faced by governments and corporations that have far greater access to legal services and policy analysts. They aim to mobilize local groups to resist development projects that are not in their best interests, whereby citizens demand greater participatory democracy in decision-making. Local concerns (sometimes labelled NIMBY – not in my back yard) are protests that can seek out supporters at larger scales to draw the attention of policy-makers (Rootes, 2013). This can involve transnational networks like Greenpeace (Bernhagen, 2011; Tarrow, 2005) or in cases where there is a lack of support at the national level, jumping scales, from the local to the global, where "climate justice acts as a master frame to bridge between climate protection and global justice" (Wahlström et al., 2013, p. 104). One area that shows promise is "eco-education" and youth leadership development as demonstrated by the Environmental Justice and Climate Change Initiative in the United States. The program involves developing training for youth on climate science, policy, EJ theory, media literacy, and community organizing so young environmentalists and activists have the tools to work with local organizations to adopt pollution prevention programs, ecological protection, and the greening of industry (DiChero, 2008). Though youth may lack political power now, they hold tremendous potential to effect change, especially if such a program were to be adopted internationally, given that they are the leaders of tomorrow and their values will shape future economic and environmental policy.

The third major frame identified in the environmental and social justice literature is "Eco-Opportunity" which can be further sub-divided into three sub-frames: (1) Economic growth; (2) Markets, government and labour; and (3) National and energy security. The economic growth sub-frame seeks to foster innovation, new infrastructure investments and job creation. It emphasizes pricing the economic costs of carbon use and incentives to transition to non-carbon based forms of energy use and manufacturing (Bernhagen, 2011; Hazell, 2009; Kahn, 2009; Teelucksingh and Poland, 2011; Roberts and Parks, 2009; Wilkinson et al., 2010). "If a 'green economy' is good irrespective of its climate/environmental benefits, then it can be the end in itself rather than the means to an end" (Vezirgiannidou, 2013, p. 601). However, critics have noted pitfalls associated with pro-climate policy doubling as a pro-economic policy. It can be detrimental if it confounds job creation with environmental protection and mitigation. "It is possible that green-job creation will be a beneficial side-effect of policies to improve environmental standards, but these policies should be judged on their merits, based on this objective, rather than job creation (green or otherwise)" (Winter and Moore, 2013, p. 3). Alliances include labour, research and development sectors (green tech clusters), and public-private sector partnerships. The economic growth frame has been most successful with the alternative energy sector (where there is no presence of fossil fuel industries). At the same time, this frame is limited in its ability to fully address arguments about the unfair burden of carbon pricing and economic competitiveness on low-income individuals and small businesses. There are also challenges around the definition of green jobs, the metrics used to measure efficiency and productivity, and the distinction between green employment and employment in traditional environmental sectors such as farming, forestry, and mining.

The markets, government and labour sub-frame struggles with understanding to what degree big brand sustainability and eco-consumerism can address climate change against what role governments should play in investing in research and development and assuming the risks related to new innovations (Dauvergne and Lister, 2012; Janicke and Jacob, 2004). Alliances include multi-nationals, government regulators, consumers and labour. Greening the economy involves firms becoming more sustainable in their production processes and consumers becoming more discerning in buying green products. Governments can play a role investing in innovations to sustain these activities.

The national and energy security sub-frame seeks to counter the "environment versus the economy" rhetoric by emphasizing the co-benefits of greening an economy in terms of job growth and environmental protection (Bernhagen, 2011; Vezirgiannidou, 2103). Clean energy is presented as a strategy to reduce import dependency and need for fossil fuels. Tactics include eliminating subsidies for fossil fuels, cap and trade and carbon taxes. However, oil exploration is still the conventional approach to energy security for most nations and strong lobbies by industrial sectors that stand to lose by regulation or carbon taxing have slowed progress on greening the economy. Short-term views about cost prevail rather than longer terms views about investment in green industry. Sub-national efforts to steer from partisan politics at the national level have found their efforts frustrated by the environment versus the economy rhetoric, and oftentimes, the influence of national subsidies is linked to cost efficiency rather than innovation. At its worse, this

frame can lead to greater exploitation of fossil fuels and marginalize the urgency of climate change (Bernhagen, 2011; Vezirgiannidou, 2013).

The fourth major frame, Eco-Urban Politics of Sustainability, strives to secure urbanism and resilient infrastructure (Hodson and Marvin, 2007). Cities are places of high carbon development pathways and are particularly vulnerable to climate change because of their multiple environmental stressors, growing population densities and emissions, "paired with limited financial and regulatory capacities…[highlighting] the importance of collaboration amongst governments, the private sector, civil society and individuals" (Burch et al., 823). Cities are where conflicts between environmental and economic interests play out at the local level, including market liberalisation, privatization, the development of new technologies, and a variety of forms of regulation (Bulkeley and Betsill, 2013; Danson, 1998; Neumayer, 2003; Sharzer, 2011; Teelucksingh and Poland, 2011). Alliances include multi-level government "spheres of authority" (Bulkeley and Betsill, 2013), ENGOs, green parties, and labour and industry. Global cities seek to share knowledge, including how to secure financial resources to address climate change at the local level given resistance at higher levels (Jackson and Victor, 2013). Energy, transportation, housing, waste management, air and water quality are all major foci. Success stories include Melbourne, Australia's stringent sustainable building strategy and the Kuyusa project in Cape Town, South Africa, a low-cost urban housing energy upgrade project.

As mentioned, in Canada, environmental movements have had difficulty scaling up beyond the provincial level, with the notable exception of Greenpeace, which was active in the late 1960s, protesting against nuclear detonations by the US on the Aleutian Peninsula of BC. Its activities against the commercial whaling industry brought it prominence on the world stage and eventual absorption into European eco-political arenas (i.e., world headquarters moved to the Netherlands in 1979).

> "Canadian organizations tended to be highly localized, in contrast to the larger, national ENGOs found in the United States. While the early Canadian ENGOs originally excelled by virtue of their focus on local pollution problems, the shift to more abstract, underlying problems was met with varying success. Ultimately, they were ill-equipped to address the larger, transnational issues that came to dominate the environmental agenda in the 1980s and 1990s" (O'Connor, 2010, p. iii).

The following case study analysis sheds light on how framing by different stakeholder groups, including governments, ENGOs, social justice movements, labour and the media influenced the development of green economies in BC and Ontario.

Results from Case Study Analysis: Comparing British Columbia and Ontario Green Economy Policy

From a technical perspective, the very nature of Canadian federalism makes it difficult to talk about a national green economic development strategy due to the independent

legislative authority of provinces and territories. Much of the effort to green an economy centres on renewable energy policies, which are complex and involve multiple scales of decision making. For example, while policies exist at the federal level to support the development of renewable energy (e.g., the Infrastructure Stimulus Fund)[2], electricity is governed at the provincial level. While renewable energy programs have been challenging to launch because of issues of governance and scale, significant strides have been made in green construction and retrofitting. Leadership in Energy and Environmental Design (LEED), a national consortium and member of the World Green Building Council, is transforming the built environment for a sustainable future by changing industry standards including, developing best design practices and guidelines, advocating for green buildings and legislation to support green construction, and developing educational tools to support sustainable design and construction practices.[3] Membership includes BC Hydro, the Toronto and Region Sustainable Housing Foundation, CISCO, Lafarge and other industries and ENGOs.

Unions and higher learning institutions recognize that growing a green economy requires new skills, which presents opportunities for retraining workers currently unemployed to creating new teaching jobs at colleges and universities (Berger, 2008; Deveau, 2012; Dignan, 2009; Katz, 2012; Roach, 2009; Ryan, 2009; Stewart, 2008; The Good Green Jobs Map, 2012, a and b). There are also added opportunities for construction and engineering in public transit projects (Katz-Rosene, 2011).

In the interest of levelling competition between firms in different provinces, a federal policy on carbon pricing (whether a carbon tax or cap-and-trade, or a combination of both) would be highly desirable. Further, it would supersede provincial politics and pressure (such as Alberta's reticence to price carbon emissions), and reflects the views of the vast majority of Canadians. The most recent poll by the Environics Institute for Survey Research shows that almost 90 percent of Canadians want the country to do more to reduce GHG emissions, "and as with many large-scale issues, the public looks first to governments to take a leadership role in coming up with an appropriate response, through laws, policies and whatever mechanism they may have at their disposal" (Neuman and Bruce, 2014, p. 1). In a recent poll, a majority of Canadians recognize the country's "dismal" track record on reducing GHGs, and "want the federal government to take the lead in creating tax policies for curbing emissions". However, they do not want those costs passed down to them at the gas pumps or on home heating bills (Galloway, 2015, paras. 1 and 2).

As noted earlier, the Conservative Government has yet to implement any form of carbon pricing policy. As oil prices plummet, Prime Minister Harper told Parliament "under the current circumstances of the oil and gas sector, it would be crazy…it would be crazy economic policy to do unilateral penalties on that sector" (McCarthy, 2014). Not only

[2] This is a jointly funded program between the government of Canada and the provinces to work in partnership with municipalities to build a strong economy, safe and healthy communities, and a healthy, sustainable environment.
[3] Canada Green Building Council http://www.cagbc.org/

does public opinion reveal strong support for a national policy to reduce carbon emissions, there is increasing evidence that transitioning to a green economy and pricing carbon are viable pathways for both ensuring a robust Canadian economy and environment protection (Environics Research Group, 2011). "Canada's increasing reliance on the oil sands is not the best strategy for the economy or our environment", states BlueGreen Canada, who warned of the economic risks of relying on the volatile oil market in their 2012 report. This ENGO is an alliance between Canadian labour unions and environmental and civil society organizations that advocates for working people and the environment by promoting solutions to environmental issues that have positive employment and economic impacts. They demonstrated how Canada would have 18,000 more jobs if the "$1.3 billion in government subsidies, now given to the oil and gas sector, were instead invested in renewable energy and energy efficiency". Further, another 25,000 new jobs would be created by "slashing energy consumption by a quarter over the next decade…curbing power use would add $3.7 billion to the economy and help cut the federal and provincial deficits by almost $2 billion annually by 2025" (Boyle, 2013).

Canada's lack of national leadership in addressing climate change ignores public opinion that demonstrates support for rigorous climate policy, but also evidence of the positive impact of green economies on employment and the environment. Despite a lack of federal support, the governments of BC and Ontario have emerged as Canadian leaders in efforts to foster a greener economy because of their commitment to fostering alternative energy sectors and employment, as well as carbon market strategies to address greenhouse gas emissions. However, a closer look at climate policy in each place reveals that the framing strategies used by diverse stakeholder groups resulted in divergent trajectories and policy outcomes, pointing to the importance of frames in the political process.

Sustainability and Economic Adaptation to Climate Change in British Columbia

As in the United States, BC's "first wave" environmental movement traces back to the 1950s where middle class citizens became concerned about conservation and preserving places of nature and leisure. Groups like the Sierra Club would eventually take root and a Canadian chapter was formally established in 1989 under Elizabeth May, the current leader of the Federal Green Party. Conservation movements also became concerned with environmental issues like pollution in the late 1960s following the publication of Rachael Carson's seminal book *Silent Spring*. Already noted, Greenpeace had its roots in BC. In 1969, the Society Promoting Environmental Conservation (SPEC) was BC's first ENGO, with a particular focus on urban communities in the Lower Mainland and the Georgia Basin. Still in operation today, SPEC works to raise public awareness on environmental issues and encourage policies and practices that lead to urban sustainability.

Waste management became a key area of concern in the 1970s not only as a way to reduce pollution and energy consumption, but also in terms of the economic benefits of recycling. It was at this point that framing environmentalism became linked with economic development. Modelled after an American counterpart, the BC Recycling

Council was formed in 1973 to help promote recycling as a new industry. While there were conflicts between the environmental groups (often allied with aboriginal groups) and labour militants around potential lost jobs in forestry, fisheries and mining in the latter 20th century, the 21st century has led to the forging of new alliances around the green economy. Labour and environmental groups now stand together around issues like "proposed uranium mining, protection of salmon habitat, embracing recycling strategies for cities and more recently developing a new vision for forest management" (Thompson and Duffy, 2010, p. 8). As business opportunities associated with a greener society started to proliferate the environmental movement agenda in BC, ties to labour, First Nations and social groups began to evolve more cooperatively. In part, this was because BC had access to prominent pro-environment research and policy think tanks such as the Columbia Institute (and its Centre for Civic Governance), the Pembina Institute and the David Suzuki Foundation that valued community-based problem solving and were vocal in raising awareness around the socio-economic impacts, as well as environmental impacts of environmental degradation. These research institutes were physically located near provincial decision-makers in Vancouver, but also reflected BC's history and culture. They helped connect the dots between global capitalism and emerging transnational environmental issues of the 80s and 90s, paving the way for action on climate change in the 2000s (Lee, 2010; Lee and Card, 2012; Lee, Legg and Rees, 2013; Legg, 2011; Peyman, 2010; Robinson et al., 2007; Thompson and Duffy, 2010; Tindall, Robinson and Stoddart, 2015).

Today, the BC Federation of Labour's Climate Change Working Group promotes a sustainable green economy as the way to ensure that "nobody is left behind". They frame BC's green jobs strategy as the way to ensure the protection of jobs, social and environmental justice and the creation of new jobs (B.C. Federation of Labour, 2014). In 2011, the formal alliance between the BC environmental movement and labour took shape under the banner of *Green Jobs BC*. Green Jobs BC exists to "advance economic and environmental initiatives that: provide good green jobs; are socially equitable; are ecologically responsible; and, result in the reduction of GHG emissions" (Green Jobs BC, 2014). Its steering committee has representation from the BC Government and Services Employee Union, Organizing for Change, the Columbia Institute, the Pembina Institute, the David Suzuki Foundation, the BC Federation of Labour, the International Association of Heat and Frost Insulators and Allied Workers Union, VanCity, Unifor and the Sierra Club.

An important point is that in BC, the effects of climate change were acutely felt by the public and policy makers alike, as extensive wildfires impinged on people's safety and threatened the forestry industry; the infestation of the mountain pine beetle continues to devastate forestry; and changing weather patterns are leading to seasonal droughts that impact agriculture in the interior and increased flooding risks on the coasts that threaten salmon production (Gunster, 2011; Legg, 2011). These issues served as powerful icons on the effects of climate change and were picked up in the media. For example, in a 2007 piece entitled *Going Green Collar: Labour Responds to Global Warming*, the spread of the mountain pine beetle was directly linked to climate change, the infestation killing as many as 80 million trees, affecting 25,000 remote families who rely on the forestry and tourism industries for their livelihood (Pearson, 2007). In BC, strong public opinion

backed up by articulate and respected environmental scientists and activists led to robust policy development at the provincial level. However, while BC "set about fostering a green economy, many detractors still published reports claiming the carbon tax would kill jobs" (Severin, 2014, p. 75), illustrating the pervasive power of the "environment versus the economy" frame of neo-liberals.

According to the provincial government website, the 2007 *BC Energy Plan*[4] "puts British Columbia at the forefront of environmental and economic leadership". Alternative energy will meet British Columbians' needs (e.g., bioenergy, geothermal energy, tidal, run-of-river, solar and wind power). New solutions and technologies will be fostered:

> "to 'green the grid' and provide clean remote energy and reduce energy losses. BC Hydro has developed a long-term integrated resource plan that includes an aggressive energy efficiency and conservation plan to shift to zero-carbon hydro generation over time" (Calvert and Lee, 2012).

The BC Energy Plan's policy actions will mean more jobs, new investment and ultimately greater prosperity for British Columbia. Further, BC established a carbon tax system across virtually all sectors to curb GHG emissions by at least 33 percent below 2007 levels by 2020. BC's sustainability plans acknowledge the difference between economic development (creating a more efficient economy) and economic growth (creating a bigger economy), and reflect society's dependence on the ecosphere (Legg, 2011). However, "developing BC-based green manufacturing and reprocessing industries may be the most challenging part of the plan, but this is needed to close the loop of resources", shifting away from a traditional economy where materials are extracted and then made into consumer goods, sold and then disposed of, to a resource recovery model (Lee et al., 2013, p. 42).

The key to unlocking an extensive retrofit program involves providing grants for up-front costs that can be repaid by businesses and homeowners over time. In a report by Thompson and Duffy of the Columbia Institute, 8,200 to 13,000 person years of employment would be gained by basic retrofits to 25 percent of homes in BC and reduce GHG emissions by 242,000 tons of carbon dioxide. A more extensive program is projected to create 14,000 to 30,000 jobs over several years (2010). As of 2010, provincial funding included an endowment of $94.5 million to the Pacific Institute for Climate Solutions, a consortium to further incubate BC's clean tech sectors, and $14 billion for the expansion of transit and increased ridership. Also, $1 billion to tackle climate change, $30 million for the development of clean energy sources (solar, etc.), $3 million for carbon capture and storage technology, $77 million for building retrofits and efficiencies and $10 million in biodiesel incentives (Severin, 2014, p. 12).

An assessment of the current value (2011) of BC's green industry conducted by KPMG states that "BC's green economy sector is forecasted to be $2.5 billion in 2011, a 57 percent increase compared to 2008. In contrast to the service sector, green jobs pay decent salaries. The average salary for a green job is $72,000" (Centre for Civic

[4] 2007 *BC Energy Plan* http://www.energyplan.gov.bc.ca/

Governance, June 21, 2011). Price Waterhouse Cooper identifies BC as a world leader in clean tech with a total industry revenue of $2.5 billion in 2011, which they forecast will double by 2020 (Severin, 2014). All indicators show that BC's energy plan is paying dividends by creating good, green jobs as well as reducing GHG emissions. The media and public opinion has also been supportive of BC's burgeoning green economy (Barsuk, 2009; Burt, 2009a; Parfitt, 2011).

Provincial legislation on climate change action also requires municipalities to deliver GHG inventories of community emissions and strategies for addressing these so as to be carbon neutral in their own operations by 2012 (Burch et al., 2013). Municipal governments are on board with the provincial green jobs strategy as 96 percent of regional governments are part of the BC Climate Action Charter (http://www.cscd.gov.bc.ca/lgd/greencommunities/climate_action_charter.htm). In order to meet the province's ambitious GHG emissions targets, municipalities were prompted to engage with the private sector.

In 2010, Metro Vancouver launched a pilot program in partnership with seven member municipalities and a hundred Small and Medium-sized Enterprises (SME's) to create a GHG management training program that was provided by Climate Smart Business Inc., a social enterprise. This is an interesting example of "municipal governments partnering with the private sector to increase understanding of and capacity for climate change mitigate and demonstrate leadership, while sharing costs" (Burch et al., 2013, p. 829). As early as 1999, then Premier Glen Clark of BC noted, "small and medium-sized companies could create thousands of jobs [in green adaptive technologies]" (Anonymous, 1999). Vancouver has framed its participation on the international stage by vying to become the "greenest city by 2020". It is considered a world leader in fuel cell technology, but its firms tend to be small and niche-focused, and so it would benefit from broader based partnerships to reach out to markets like Asia through trade missions that could generate significant export revenue (Peyman, 2010). Vancouver's amendments to building codes for all new builds to be carbon neutral and to improve energy efficiency in existing stock is leading edge for Canada and an example of the Eco-Urban Politics of Sustainability frame which strives to secure urbanism and resilient infrastructure.

The "environment versus the economy" narrative ceased to hold effect in BC after 2006 and the launch of the Stern Review, which encouraged the development of green economies to take action against climate change, but also as a strategy to address inequalities tied to climate security. This was followed by a study carried out by the David Suzuki Foundation and the Pembina Institute called *Climate Leadership, Economic Prosperity* that called for a limit on GHG emissions to limit temperature rise to two degrees, yet showed that Gross Domestic Product growth would still occur across provinces that adopted mitigation strategies to limit the two degree ceiling (Bramley et al., 2009). By 2009, BC "had moved into the socio-political arena of thinking about economic development and environmental protection as potentially simultaneous activities instead of undertakings that were, at their root, in opposition of one another" (Severin, 2014, p. 35). While the global economic downturn of 2008 and its aftershocks did little to deter BC's plans for a green economy, the situation in Ontario proved quite different.

Ontario's Green Energy Strategy

Ontario's "first wave" environmental movement in the 1960s and 1970s tended to focus on "end-of the pipe" local issues around pollution, mainly in the Great Lakes area. This involved groups like Group Action to Stop Pollution (GASP), the Toronto-based Pollution Probe, and the more radical Zero Population Growth Toronto. In particular, Pollution Probe challenged Ontario Hydro around pollution stemming from coal-fired electricity generation and framed the issue around human health effects, stressing:

> "the idea that change necessitated working within the system, not outside it. This approach, attributable to the early leadership by members with impeccable establishment pedigrees, resulted in an effort to bridge the divide between government, corporations, foundations, and ENGOs" (O'Connor, 2010, p. 287).

Not all Ontario ENGOs were as successful, and the disjointed, more localized efforts of the environmental movement made ENGOs vulnerable to the influence of corporations and foundations, whose contributions were necessary to their continuing operations budgets. The most stunning example of conflict of interest occurred with Energy Probe, an ENGO that lobbied against nuclear power in Ontario. Interestingly, the motive for the protest had more to do with protecting the interests of fossil fuel producers than it did with saving Ontario populations from the storage and security risks associated with nuclear energy. Energy Probe was libertarian in its ideology, in favour of the free market as environmental regulator. In 1983, they launched a campaign "to educate Canadians to the social, environmental and economic benefits of less regulation in the petroleum field". Boasting an endorsement from the Canadian Petroleum Association, Energy Probe would soon thereafter add hydro to the list of energy forms it opposed, leaving little doubt that the organization had compromised its credibility (O'Connor, 2010, p. 251).

In 1984, Energy Probe sought to break Ontario Hydro's monopoly on power supply and called for the privatization of the utility. It also opposed Canadian foreign aid projects in energy generation in other countries. The potential conflict of interest that ENGOs face in their funding arrangements calls for more attention to the lack of definition around green jobs or green collar jobs and whether their designation should hinge on the carbon footprint arising from the industries that generate said employment versus other modes of environmental protection (Legg, 2011; Severin, 2014).

In 1975, the IS Five Foundation put recycling on the map with the spread of the blue box program in Toronto. In 1978, the Recycling Council of Ontario was formed, including members from ENGOs, municipal governments and the private sector. In 1986, waste management was elevated to the provincial stage with the formation of Ontario Multi-Materials Recycling, which highlighted environmentalists:

> "success in selling the concept of recycling to the public and the business community. While this was an important victory…the complete solution, as outlined in Pollution Probe's 3Rs waste hierarchy, began with a reduction of the throughput, and continued with an emphasis on purchasing reusable goods" (O'Connor, 2010, p. 266).

Pollution Probe also found itself in difficulty when it partnered with Loblaws supermarkets endorsing their Green Line of products in exchange for one percent of royalties. The Green Line included biodegradable disposable diapers, but this alliance alienated environmentalists because it contributed to, rather than reduced throughput of garbage.

At the beginning of the new millennium, the environmental movement in Ontario was increasingly concerned about pollution emanating from coal-fired electricity plants. Unlike BC whose electricity generation produces very low levels of GHGs (Thompson and Duffy, 2010), in 2003, Ontario derived 25 percent of its electricity from coal-fired plants. This prompted Ontario to undertake the largest climate change initiative in North America. As of 2014, Ontario is the first coal-free electricity generating jurisdiction in North America (Clean Energy in Ontario, 2014). Alternative energy sources became a huge focus for the Ministry of Energy, though not all would be renewable, nor all projects successful. Ontario moved primarily to natural gas-fired electricity generation, which is more polluting than renewable sources such as solar or wind energy.

After the global economic downturn in 2008, Ontario was faced with massive layoffs in the automotive manufacturing sector. Ironically, Ontario's demise in the manufacturing sector was aggravated by the rising petro-dollar fueled by Alberta and the federal government's focus on the expansion of the tar sands (Cartwright, 2009). This led to an attempt by the Ontario government to stimulate green jobs in the alternative energy sectors as well as through building energy efficiency retrofits, the adoption of recycling and organics programs and the expansion of district heating and cooling (BlueGreen Canada, 2013). Ontario's 2009 Green Energy Act highlights how the energy sector is one of the engines that drives the provincial economy. The Act was designed to spark growth in renewable energy sources such as wind, solar, hydroelectricity and bioenergy. A Feed-in Tariff program was designed to provide stable prices for energy generation from renewable sources, bringing clean sources of energy into the supply mix and investing to modernize the transmission and distribution of electricity. Ontario seeks to expand renewable energy generation, encourage energy conservation and promote the creation of clean energy jobs (Anonymous, 2008; Kirby et al., 2013; Sinclair, 2013; Winfield and Dolter, 2014).

At the same time, Ontario suffered certain setbacks that resulted in criticism of the Green Energy Act. The first involved a deal with EarthTronics, a US-based firm that sought to manufacture small wind turbines for residential and commercial rooftops. The venture would bring 200 manufacturing jobs to Windsor, a city where 15 percent of people were out of work, the highest unemployment rate in Canada (Anonymous, 2008; Hamilton, 2009; Lucier, 2009; Shackleton, 2008). A location was secured in an abandoned manufacturing plant and "the Ontario Ministry of Energy provided a $2.7 million incentive that included other benefits, namely the promise of a province-wide feed-in tariff for small-scale wind projects that could have helped create a market for the WindTronics turbine" (Brumback and Boomgaard, 2013). Unfortunately, the design of the wind turbine fell well short of its promises for power generation. The entire business model was flawed and the company went bankrupt. The terms of the agreement with the Ontario Ministry of Energy stated that the firm would have to pay back the incentive if it

failed to create the 200 jobs promised; it made no proviso for the company failing and not being able to pay back the grant. This major setback was widely covered by the press and the government's credibility suffered because of the incident (Brumback and Boomgaard, 2013; Hamilton, 2009).

Another setback occurred in 2013 when Japan and the European Union launched complaints to the World Trade Organization (WTO) that the local content requirements of Ontario's Green Energy Act were in conflict with international trade rules (Sinclair, 2013). The WTO ruled in their favour. Despite this setback, the local development goals of the Act can be pursued providing the government uses "more traditional public sector procurement practices" (p. 19) which has the added benefit of more transparency in the use of Ontario tax dollars to build a renewable energy sector.

Under new leadership, Ontario's Liberal government has committed to further investments in the green economy. Launched in 2014, the Canada-Ontario Infrastructure Funding program sees over $5 billion earmarked for larger-scale infrastructure projects and $1 billion for smaller scale projects in communities with less than 100,000 people. A 2012 report by BlueGreen Canada on building Ontario's green economy reports that the Green Energy and Economy Act is working, with 30 green energy manufacturing facilities now up and running creating over 13,000 jobs (2012a, p. 2). Further, with an $18.6 billion investment over ten years, Ontario's Green Energy initiative is expected to generate another 35,000 new position per year (2012a, p. 5).

BlueGreen also suggests that the impact of cutting electricity and natural gas use by 25 percent by 2025 would create another 25,000 new jobs, reduce GHG emissions by nine percent, increase Ontario's GDP by $3.7 billion and cut the deficit by $982 million (2012, p. 2). This is deemed feasible because Ontario uses 50 percent more energy per capita than residents of New York State, an area whose climate is similar.

At the same time, while the Ontario government promised to institute a price on carbon in 2008 when Ontario sought to join the Western Climate Initiative (WCI) with California, BC and Quebec, it has yet to do so. There are some advances in this area however, as the Environment Minister is currently evaluating the merits of cap-and-trade and carbon taxation to make good on its commitment. Ontario environmentalists seem optimistic that now is the time for a robust carbon pricing policy (Morrow, 2014, 2015). Political will in Ontario seems to be increasing. For example, BC Premier Christy Clark met with Premier Kathleen Wynne in Toronto in December 2014 to discuss climate change and the possibility of moving towards a national energy strategy "across the country, from manufacturing in Ontario to oil extraction in Alberta and Saskatchewan" (Morrow, 2014, p. 1). Discussions between all the provinces around climate change and a national strategy for carbon pricing are scheduled for spring of 2015.

Carbon Markets as Social Processes

The Western Climate Initiative (WCI), which strives to create a consistent approach to emissions regulations in North America via cap-and-trade carbon pricing, is comprised of

eleven partners from across Canada and the United States, including BC and Ontario. The WCI evolved in 2007 at the state and provincial level via politicians who were concerned about climate change, despite little support for substantive policies at the national levels of government. The Conservatives withdrew Canada's participation from the Kyoto Accord when they came to power in 2006 and the Obama administration struggled with Republican blocks against the very science of climate change, let alone the creation of a carbon market. In 2008, BC established a revenue-neutral carbon tax while Ontario delayed implementation (with the latest round of consultation with stakeholders occurring in 2013).

From a policy perspective, reducing greenhouse emissions involves both the regulation of pollution, but also, the stimulus of innovation around the development of clean energy sources and cleaner manufacturing processes. The framing of carbon markets to limit greenhouse gas emissions has been subject to change over time, depending on several variables: the political stripes of those in office, the state of the economy, the public's views on climate change, the presence of carbon-based energy economies and/or the potential for renewable energy production, and what other large-scale carbon market initiatives were doing (e.g., the European Union's Emission Trading Scheme which started in 2005). There are also differences between environmental policy and industrial policy at multiple scales when discussing green economies in the context of addressing climate change (Hess 2012; Klinsky, 2013).

Hess states that framing energy policy has become increasingly positioned with business development and job creation, but developmentalist ideologies may differ based on how they are viewed through various political ideologies. Liberalism permits government intervention in the economy for environmental purposes to address issues of distributive justice. Neoliberalism advances policies that strengthen markets dominated by large corporations (e.g., Big Oil) (DeVogli, 2015; Harvey, 2005). Greens support public ownership of resources and transfers to localities, including households and small businesses (2012). In the WCI, early adopter states and provinces did not have strong fossil fuel sectors so transportation sectors were usually the largest emitters. The 2008 economic downtown led to increased concerns regarding the balance between government environmental regulations and economic competitiveness. It was around this time that skepticism about the effects of climate change (more so in the US than in Canada) was high, which culminated in some partners like Ontario stalling implementation of carbon market policies (Klinsky, 2013). Yet the pendulum is swinging again. The Climate Change Summit of 2014 led to more public awareness about the risks associated with climate change and the new agreement between the United States and China to tackle greenhouse gas emissions is historic (Walker, 2014). As oil prices continue to plunge, ironically there is more focus on nations where sustainable energy and the greening of economies has not only led to decreased emissions, but to greater economic stability against the shocks of the oil market. A window of opportunity is opening to re-engage in discussions around a "continental approach" to climate policy more broadly (Kirby et al., 2013) through the creation of carbon markets, but also, through the promotion of alternative energy as economic development.

Alternative Energy – Governance, Markets and Costing Social Welfare

Kingdon's policy stream suggests that solutions for current social and environmental problems are generated by specialists and experts. Winfield and Dolter's discourse analysis of the Ontario Green Energy and Green Economy Act (2009) revealed that differences in the perspectives of policy analysts about appropriate roles between markets and the state in the development of the renewable energy sector and the assumptions they use in their economic models greatly influenced the feasibility and desirability of the solutions proposed to decision-makers. Coined "market fundamentalists" and "economic rationalists" by Dryzek (2013), these critics argue that the development of renewable energy sources ends up being more expensive to consumers than other alternative energy sources, and as a result, leads to economic stagnation, negative employment and decreased social welfare. But their analysis neglects several key variables, including subsidies and tax breaks for traditional energy sectors, capital costs incurred previously at a discounted rate for nuclear plants and hydro-electric infrastructure, and external costs such as pollution, air, water and soil contamination, and environmental destabilization such as tremors associated with fracking (Dryzek, 2013; Winfield and Dolter, 2009).

Economic rationalism prevailed in Ontario, resulting in a move to natural gas-fired electricity generation to replace the more polluting coal-fired generation. Natural gas is not as clean as solar or wind, yet low natural gas prices across North America, stability in energy delivery during peak use and less expansive infrastructure costs for conversion made this solution more appealing to policy-makers.

At the same time, "ecological modernists" counter these arguments, calling for a review of the true costs of non-renewable energy alternatives. There are several hidden costs within the chain of commodity production, including social costs associated with cheap labour and an "unbalanced ecological footprint" (Roberts and Parks, 2009). Ecological Modernization Theory (Mol and Spaargaren, 2000; York and Rosa, 2012), which evolved from Europe, supports restructuring and government policy to develop a more environmentally sustainable, progressive political economy, including the creation of innovative industrial sectors, green skills training and jobs (Winfield and Dolter, 2014). Once subsidies, risks and externalities are factored into economic models that compare the costs of traditional energy versus renewable energy, policy-makers can be provided with a full understanding of how renewable energy initiatives impact social welfare.

The gap in economic modeling is further evidenced by the design and execution of the Ontario Power Authority's Feed-in Tariff (FIT) Program as compared to similar FIT programs in Europe. Ontario energy rates, particularly for wind and solar PV, were considered excessive, which invoked the critique of market fundamentalists. The Ontario program also lacked links between rates and "the avoided environmental costs of conventional technologies or the pace of renewable energy deployment" (Winfield and Dolter, 2014) and costs management features of European FIT models.

Finally, while the Ontario Green Energy and Green Economy Act included incentives for renewable energy projects with significant community and/or Aboriginal participation, "the capacity of community proponents to propose and finance projects was far less

developed than was the case in European jurisdictions that inspired the FIT program" (Winfield and Dolter, 2014, p. 429). Large-scale commercial developers dominated participation in the program because they could realize economies of scale.

Despite these challenges, the Pic River First Nation's hydroelectric installations stands out as a success, and provides an example of the type of governance needed to support community-based alternative energy projects. The Pic River First Nation in Northern Ontario undertook an incremental approach to alternative energy development that began in 1987 with the construction of a small 5-megawatt hydroelectric generating station on reserve land in partnership with a Toronto-based private-sector developer. Today, the band participates in a multi-stakeholder consortium as majority owners with lead renewable energy developer status for a 24-megawatt facility. They are also investigating opportunities around Aboriginal-owned manufacturing facilities for wind turbines (Krupa, Galbraith and Burch, 2013). According to Krupa and colleagues, the band is pursuing a leadership role in policy advocacy for First Nation development, using "innovative public engagement strategies" (2013, p. 10) and community involvement to make principled decisions around the use of their lands and developing relationships between the state and the Indigenous peoples of Ontario. They highlight that framing sustainable energy projects requires "a project design that reflects community values, incorporates community control, and incentivises indigenous ownership" (p. 1). The initiation for the project came from the private sector, but through community involvement, the band was able to ensure that the use of the land for traditional practices was not disrupted and also to eventually acquire full ownership rights to the site. One critical outcome of the project is the reversal of "the trends of societal decay [high levels of substance abuse, diminished sense of self-worth, low educational attainment, high unemployment], enhance community sustainability, and create viable life opportunities for future generations" through their burgeoning renewable energy development projects and process (Krupa et al., 2013, p. 9).

Labour and a Green New Deal

The framing of "labour-environmentalism" in Canada has evolved over time, with some key successes as well as challenges. The issue of climate change presented labour with opportunities to develop new political alliances around the benefits of ecological modernization and the development of sustainable energy. Framed by the United Steelworkers Union as a "Green New Deal", the state, domestic capital and labour could work together to create new "good, green jobs" in manufacturing and construction (Nugent, 2011). Dubbed "Blue-Green alliances", blue-collar workers stood to gain from emission reduction strategies through the creation of new employment and new workforce training opportunities. There has been considerable debate around the definition of a "green job", which also impacts the employment statistics for a green economy, but Deitche defines them as "careers that transcend the general environmental sciences, to encompass professional jobs that promote sustainability, as well as jobs in old industries that are adapting to the trend of sustainability" (2010, p. 57).

The Canadian Labour Congress, Canada's largest labour body, has been a vocal supporter of the Kyoto Protocol "in spite of the country's relatively high proportion of workers in the energy, automotive, mining, forestry, and other environmentally sensitive sectors" (Savage and Soron, 2011, p. 38). In 2001 they developed the *Green Job Creation Project* to frame how the Canadian labour movement envisioned environmental policy as a job creation opportunity, countering corporate lobbying against emission regulation. It also linked environmental concerns to neoliberal capitalism, including "globalization, free trade, deregulation, privatization, and the transnational corporate agenda" (Nugent, 2011, p. 64), opening up opportunities for labour, environmental and social justice advocates to work together. As such, "energy was reimagined as a public service that should be produced to meet human needs" rather than corporate profits, which would strengthen Canada's control of its environment, economy and sovereignty (Nugent, 2011, p. 65).

However, implementing a labour-environmentalist agenda proved increasingly challenging, particularly with the election of the Conservative Party in 2006 and arguably, a schism within the centre-left. Then economic crisis of 2008 had a tremendous impact on the manufacturing sector in Canada, particularly auto manufacturing in Ontario. Interestingly, Ontario was particularly vulnerable because the North American "Big Three" corporations' strategy favoured Ontario as the location for the production of the largest size vehicles like light trucks and SUVs (Nugent, 2010). So the combination of soaring gas process and the costs of reducing emissions led to reduced production and huge job losses. Corporations, especially auto manufacturing companies, took up the "jobs versus the environment" rhetoric, pointing to increased government regulation around greenhouse gas emissions as one of the reasons Canada was no longer competitive for manufacturing and lobbied against ratification of the Kyoto Accord. Even Buzz Hargrove, President of the Canadian Auto Workers Union (CAW), warned that 150,000 jobs were at stake and denounced Kyoto and the environmental movement as "insane" (Nugent, 2011, p. 68). The Conservatives, who embraced neoliberal political and economic ideology, moved swiftly to remove barriers to business recovery and competitiveness, including a withdrawal from the Kyoto Accord in 2011.

The effects of wage competition due to globalization led to the decline of auto manufacturing in Canada, which had a particularly devastating effect in Ontario, creating structural unemployment (Radwanski, 2014). Unions committed to social unionism took up the issue of climate change, though the rank-and-file did not necessarily associate it as a product of the neoliberalist corporate agendas that led to the decline of good-paying, unionized jobs in the first place (Nugent, 2011). In the case of CAW who supported environmental activism, once widespread job losses became a reality in the automotive sector, social unionism succumbed to the defensive strategies of business unionism and militant particularism, with an emphasis on preserving wages and working conditions in a dying sector rather than trying to battle for a just transition to a green economy (Hrynyshyn and Ross, 2011; Nugent, 2011).

Further, social justice advocates would challenge that New Green Dealism, which focuses on the creation of unionized jobs in the green economy by partnering with the state and local capital, does not address broader social and environmental issues associated with neoliberalism and global capital such as whether Canadian firms are

propagating unjust wage and work conditions abroad or using polluting technologies in regions with less regulation (Cahill and Fitzpatrick, 2002; Deitche, 2010; Harris, 2010; Nugent 2011; Okereke, 2007).

Linking Environmental and Social Justice – a Bridge too far?

Haluza-Delay and Fernhout (2011) found that poverty/socio-economic status was the most prevalent dimension of SJ found within the frames of one third of member organizations of the Canadian Environmental Network. Notably, the Ontario Healthy Communities Coalition measures communities based on four dimensions: the economy, society, the environment and health. It also identified the racialization of poverty as a further subset to social and environmental inequalities. Though these links were framed and advocated through education to mobilize support, environmental projects were the least developed, and did not progress to prognostic framing or the problem stream for policy makers. Similarly, the Toronto Environmental Alliance, which promotes public transit as a basic need and social right, does not go beyond the diagnostic frame – that public transit can help mitigate climate change.

A capabilities approach to social and environmental justice places the individual within their larger community, but also applies to the treatment of the environment itself, and creates links between the functioning of living systems and the potential interruption of capabilities for both human and non-human beings (Powers and Faden, 2008; Schlosberg, 2013). A detailed study on climate change in the BC media leading up to, and during, the Copenhagen climate summit of 2009, revealed "Canada's ugly new face" and the public's dissatisfaction with the failure of government to address climate change (Gunster, 2011). However, the media did not balance the stories of failure with any discussion around which policies might work. This can undermine a capabilities approach to climate change because the marginalization of success stories (like BC) "in favour of stories that dwell upon nothing but the failures of political actors and institutions can destroy the capacity of the public to invest any hope in the political process" (Gunster, 2011, p. 489).

Indeed, the media has been a significant barrier to gains by alliances between EJ and SJ movements because by and large, popular media, and even protesters themselves, invoke the "dominant prognostic framing that climate change must be dealt with by changing the attitudes and behaviour of individual citizens, by legislation, or by policy change" rather than "solutions to climate change that involve system change or global justice" (Wahlström et al., 2013, p. 119). This plays into the neo-liberal agenda and is counter to organizations who rely on collective action like the labour movement.

The bailout to the automotive industry's Big Three following the recession of 2008 is an example of this type of policy making. Despite the fact that 486,000 full-time jobs have been lost in Canada, never to return, rather than investing in green-collar jobs like Japan (solar power) and the European Union (wind turbines), the Canadian government has been "bailing out a 'sunset' industry with billions of taxpayers' dollars – ostensibly to protect jobs" (Harris, 2009). Cliff Stainsbury, who represents labour in numerous

community-based environmental organizations in BC notes, "the business-as-usual scenario is the job-killer [while] dealing with global warming is the job-creator" (Pearson, 2007, p. 19). Yet autoworkers in Ontario continued to fear for their jobs without a Just Transition plan in place, "making them feel they must choose between their financial security and long-term environmental security" (Pearson, 2007, p. 25). This is a very important point, especially with respect to the climate science debate itself because "when individuals perceived their own definition of the problem to be out of synch with the larger community, they changed their assessment in the direction of that made by the community" (Pralle, 2009, p. 790). The Labour movement in Ontario fell back into protectionist practices of trying to keep existing jobs in a dying industry. Arguably, its membership would have been better served if union leaders focused on advocating for a Just Transition to a green economy, which would further economic as well as environmental sustainability.

A key example of the media's influence on government policy is its treatment of the *Climate Leadership, Economic Prosperity* study calling for a limit on GHG emissions in order to prevent a temperature rise of two degrees. Media analysis tended to reflect neo-liberal rhetoric around growth as the cure to inequalities caused by climate change rather than fully understanding the implications of the study's cost-benefit analysis. Regions like Alberta and Saskatchewan who were poised for growth from fossil fuels extraction reacted differently than other provinces who were losing out economically and environmentally. As Severin points out:

> "Media reporting did not highlight what the losses were from projected growth, nor was it evident that growth was still overwhelmingly positive. The fact that it was, on the whole, better distributed across regions, was actually used to detract from the analysis with critics such as Stelmach calling it a 'wealth transfer'" (Severin, 2014, p. 40).

Policies that limit GHG emissions in other jurisdictions have been shown to address the inequalities caused by climate change, an objective whose value seems lost to neo-liberal elites and the media. There has been an absence of leadership at the federal level regarding pricing carbon, though the lack of such a policy allows regional inequalities to persist. In Vancouver, B.C., it was several municipal governments, a social enterprise and several small and medium-sized enterprises (SMEs) that formed a novel coalition of multi-sector networks to address climate change, and eventually, the Province instituted a carbon tax (Burch et al., 2013). If SJ and EJ movements are to counter the "drill baby drill" sentiment of the climate change denial industry fueled by Big Oil, they must work with municipal governments and SMEs to develop "careful regulation linking new products to local production" (Cartwright, 2009, p. 2).

Framing Opportunities: Factoring External Costs into Social Reproduction and Resilience

As the 2015 election looms, the Conservative government has been criticized for inaction on the climate change file. Implementation of the Kyoto Protocol was abandoned via an

omnibus bill passed by the Conservatives in 2012. But Bill C-38 had greater implications for environmental and social justice in Canada through its repeal of the Canadian Environmental Assessment Act, the Department of Social Development Act (thereby eliminating the National Council of Welfare), the International Centre for Human Rights and Democratic Development Act (thereby terminating the Centre's activities), the Fair Wages and Hours of Labour Act, and authorized the Minister of Indian Affairs and Northern Development to close the First Nations Statistical Institute (Government of Canada, 2012). These changes impact how government deals with issues of social and environmental justice.

One frame that can be used to link the SJ and EJ movements is health, which can be particularly powerful within the context of Eco-Urban Politics of Sustainability, which strives to secure urbanism and resilient infrastructure (Moulaert, 2010). Indeed, "green jobs are usually cleaner, safer, healthier, and more durable" and thus addresses workplace safety as well as employment stability (Pearson, 2007). But the creation of bike paths, public transit and greener buildings can also lead to healthier people who are better connected to their environments.

Beyond green jobs, the environmental movement itself needs to be positioned as both essential to the evolution of modern economies, but also to "the ability of social reproduction – community functioning, not simply individual exposures" (Schlosberg, 2013, p. 43). Environmental struggles are fights for social reproduction because:

> "*all* environmental issues are reproductive issues; efforts to protect the health and integrity of natural systems – water, air, soil, biodiversity – are struggles to sustain the ecosystems that make all life possible and enable the production and reproduction processes upon which all communities (human and non-human) depend" (Di Chiro, 2008, p. 285).

As humankind finds itself at the environmental tipping point, "the global union movement has coined the cautionary phrase: "There are no jobs on a dead planet" (Cartwright, 2009, p. 1).

However, the calamity frame has not been sufficient to garner public outcry or the level of government action needed to halt climate change. Interestingly, "citizens in affluent democracies are more concerned about the potential human health effects of climate change than any other impacts" (Pralle, 2009, p. 792), yet this frame is rarely used by EJ or SJ advocates. The adaptation of economies to green policies is only likely to be successful "with programs designed to cope with stresses not [only] related to climate change, and this claim has been echoed on the mitigation side" (Burch et al., 2013, p. 827).

Social Determinants of Health (SDoH) frameworks provide a way of expressing how social and environmental factors impact human health. The Ottawa Charter of 1986 provides a framework for health promotion, articulating a set of key values that would form the foundation of a "new public health". These included peace, social justice and equity, ecosystem health, empowerment, "whole of government" and "whole of

community/society", and a settings approach whereby "[h]ealth is created and lived by people within the settings of their everyday life; where they learn, work, play and love" (World Health Organization, 1986). Several disciplines (Dietz, Michie and Oughton, 2011) like political economy, sociology and health geography use SDoH frameworks to address the effects of climate change and environmental degradation because:

> "beyond documenting circumstances of inequality, a more fundamental question is to ask why environmental harm concentrates in certain sectors of society, including the role of ideology impacting the efforts of government or civil society organizations" (Haluza-DeLay and Fernhout, 2011, p. 742).

Eco-feminists have also shed light on how gender, social class and ethnicity impact inequality, arguing that work in the reproductive or private sphere (e.g., having and raising children, maintaining a household, feeding and caring for family members) ties them to human needs and nature in different ways than work in the productive sphere (Haraway, 1992). Classic economics tends to focus only on economic outputs from production, while a basic tenet of capitalism is that the reproductive sphere must function to support production. Climate justice can be positioned as a necessary means to ensuring the function of the reproductive sphere, and by extension, social reproduction. Framing environmentalism within the context of where people live, work and play can challenge, "public misconceptions that climate change is largely a problem of the future and its impacts will, for the most part, be confined to the non-human world" (Gunster, 2011, p. 484). Regionally specific stories about the impact of climate change can create a sense of urgency, as did the wildfires and flooding in BC (Sheppard et al., 2011).

A key challenge is to balance communication around threat messages and challenge appraisals because "when risks are perceived as threats (i.e. beyond our capacity to respond), they generate maladaptive behaviour in the form of denial, paralysis, or apathy" (Gunster, 2011, p. 497). Critical policy assessments and sound science can frame climate change as a challenge to rise above, not just a threat, to galvanize innovative ideas and political action that supports community and individual resilience. Activists and policy analysts need to emphasize the availability and feasibility of solutions to prevent cynicism (Pralle, 2009).

The success of the Pic River First Nation alternative energy schemes stress the need for trust-building and co-production of knowledge at the outset of a project, providing for participatory governance models that allow the values of a community to be reflected in the vision for development. What may be perceived as a central community goal (such as alleviating local sources of pollution and/or job creation) may not align with all members of the community, or community-members may remain suspicious about development projects in general. So early consultation and on-going communication are needed to ensure that, in perception and reality, industry and community both benefit from the development. Further, social as well as environmental desirable outcomes should be highlighted (Krupa et al., 2013, p. 15). These best practices are important for smaller, local projects, but even more so when projects are scaled up to include customers or users from outside of the alternative energy development site.

Climate-change politics is "undoubtedly an important site of the ideological struggle where status quo arrangements have been called into question" (Nugent, 2011, p. 60). It has been suggested, by Hrynyshyn and Ross, that collective action frames like Just Transition could unite EJ, SJ and labour, and revive a more militant social unionism (2011). It could unite the working class more broadly, rising above members' interests by emphasizing the shared needs of workers as citizens of the planet and the importance of the reproductive as well as the productive sphere. The Canadian Labour Congress predicted a net gain of 1.5 million sustainable jobs "if the Kyoto Accord is implemented thoroughly and seriously" (2001, p. 12). A Just Transition frame could be deployed to press the government to address structural unemployment as well as social and environmental degradation.

Vancouver has been able to build a repertoire of tangible examples of successes, with large corporations engaging in social responsibility as well as SMEs, to build awareness within the business community and the public about the positive effects of the green economy. "Framing climate mitigation in terms of business risks and opportunities… rather than using purely moral or ethical arguments for environmental management" may resonate with consumers as well as businesses, and invoke market drivers like increased pressure by suppliers for greener products, consumer interest in sustainability, participating in and influencing policy development, and green sector networking (Burch et al., 2013, p. 827). This also calls for the development of a solid definition of green jobs and metrics to ensure the success of green jobs is being tracked effectively. Critics have been quick to quibble over assumptions about the green economy, "a sign of the unfinished debate over what is green" (Bula, 2014, p. 1).

McCann's notion of "policy boosterism" as applied to Vancouver's bid to be the "greenest city" outlines how successful local and regional policy practices and programs are promoted to broader communities, including branding with the aim of attracting new investment, retaining or attracting skilled labour, and mobilizing public support. Branding strategies are:

> "ideological, political projects that seek to create a general sense of local common purpose in order to naturalize the notion that certain types of development and growth are good for everyone, in one way or another, and to marginalize any group or individual that questions this myth" (2013, p. 8).

In this case, green economic development is coupled with environmentalism and eco-tourism to provide the city of Vancouver with a strategic advantage that positions it as a "leader" on the world stage and a success story to be emulated, all the while increasing its competitiveness for attracting capital and labour. However, the competitive nature of policy boosterism has its problems in that the economic and social gains are not always shared equally across communities, as evidenced by Vancouver, which has the second-highest child poverty rate in the country at 13.8% (Statistics Canada table 202-0802, 2015).

This highlights the need to evaluate environmental policy in terms of how equitable are the benefits derived and distributed, and for more rigorous cost-benefit analysis that

includes the costs of subsidies to carbon industries as well as the risks (environmental and health) and externalities (social and environmental inequities). When these factors are considered in cost-benefit analyses, "the additional costs of renewable energy initiatives, relative to conventional technologies and approaches to acquiring new energy supplies, are significantly reduced if not eliminated" (Winfield and Dolter, 2014).

Canadian social labour promoted renewable energies yet stood strongly against the expansion of nuclear energy in 2006. It clearly articulated how external costs and risks are not factored into market process for energy, and that it is taxpayers who end up footing the bill for increased health care costs, regulation and pollution control, and environmental clean-ups. Local 444 of the Canadian Auto Workers stated:

> "renewable energy sources are a bit more expensive than conventional sources, but the price we pay for electricity does not take into account the subsidies, the environmental damage and other external costs associated with the use of fossil and nuclear fuels" (Savage and Soron, 2011, p. 52).

The framing of the green economy will involve "setting measurable indicators for economic development and adopting triple-bottom line accounting (which includes social, economic and ecological objectives), all helpful steps in transitioning from growth to development" (Legg, 2011, p. 28). This is how climate change policy can be designed to "encourage future administrations to pay attention to the problem and discourage future efforts to overturn or ignore it" (Pralle, 2009, p. 795). However, the practice of:

> "measuring/projecting opportunity in a discrete economy is a new angle in the relatively new field of green economics where definitions and parametres are still in flux and very much a part of the current debate. Disagreement comes in many forms: political, logistical, methodological or policy-oriented, and there is a limited amount of peer-reviewed material to draw on, with very few exceptions" (Severin, 2014, p. 42).

A new paradigm could be developed to promote sustainable development using an equity framework that is compatible in supporting the interests of health and social welfare, economic development, and environmental policy. Future research is needed to provide "a more descriptive and historical effort to understand[ing] how path dependencies" emerge and identify the "critical junctures" that "prompted or permitted states to make dramatic shifts" in social and environmental public policy (Snyder, 2013 p. 556). This paper provides new insights into policy discourses and praxis on the development of a green economy in BC and Ontario and how the "environment versus the economy" rhetoric impacted their environmental and economic development policies differently.

Conclusion

Framing a green economy has revealed three major themes: (1) Eco-Bridging (how a green economy can address the impending calamity of climate change); (2) Eco-Equity (social and climate justice); and (3) Eco-Opportunity (how a green economy can create better jobs in a global capitalist system). A fourth frame, dubbed Eco-Urban Politics of

Sustainability, speaks to the unique situation of cities in terms of their added vulnerability to climate change but also how they can act as incubators for green economies through coordinated local and regional action. The framing of carbon markets to limit greenhouse gas emissions has been subject to change over time, depending on several variables: the political stripes of those in office, the state of the economy, the public's views on climate change, the presence of carbon-based energy economies and/or the potential for renewable energy production, and the characteristics of other large-scale carbon market initiatives. At the federal level, policies that favour the fossil fuels sector have led to inaction on the climate change file and damaged Canada's reputation internationally. At the same time, the latest evidence shows:

> "climate change clearly matters to citizens, but it has yet to become an issue that determines voting choices, and politicians have been able to get away with the usual platitudes that fall short of concrete policy commitments…[but] Canadians are ready to follow when governments do finally start to move on the issue" (Canadian Institute for Environmental Law and Policy, 2011; Neuman and Bruce, 2014).

The environmental movement in Canada has remained largely grass roots in nature and the only national scale organizations are non-governmental. These ENGOs suffer high levels of non-transparency because of their reliance on corporate funders. The process by which important policy decisions around the environment are made needs to be democratized in Canada. The formation of a non-partisan, government funded national environmental organization with accountability to Parliament could provide the leadership needed to bring together the politically diverse ENGOs as well as harness the energy and commitment of scientists, business interests, labour, environmental and social justice advocates, and concerned citizens.

The development of a green economy is a complex undertaking. It involves social processes as well as technical and political challenges (Klinsky, 2013). There are multiple stakeholder groups who have different views about what constitutes a green economy and its utility in ensuring social reproduction. In order to move from rhetorical to concrete policies that foster green jobs and green energy economies, framing must be adjusted to resonate beyond eco-justice movements to a variety of stakeholders – namely government, business, labour and the broader public (as influenced by the media). We demonstrate how this can best be accomplished by incorporating risk and externalities into framing around economic and environmental sustainability through rigorous cost-benefit analysis; linking the concerns of SJ and EJ under a Social Determinants of Health framework that illustrates root causes of inequities and how these manifest more acutely in some populations than others; and that not addressing these inequities will lead not only to environmental degradation, but also to failures in social reproduction. In this way, environmental and social justice advocates can influence the green economy political agenda by identifying and promoting solutions to problems through success stories like BC, then mobilizing labour and the public to galvanize resolve and intensify political will. Finally, policy analysts, who are so important to the policy stream, will need the tools to generate meaningful knowledge around the full costs of climate change, including risks and externalities, to better inform policy makers and silence the critiques

of market fundamentalists and economic rationalists. This is our prescription for building a green economy in Canada that promotes good green jobs, social equality and environmental health.

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