

# TAPPING THE POTENTIAL OF THE SILENT MAJORITY

## THE ROLE OF SMALL BUSINESSES AND ENTREPRENEURS IN BUILDING RESILIENT, LOW-CARBON COMMUNITIES

Sarah Burch

### Key Points

- While the responsibility for responding to climate change is commonly placed squarely on the shoulders of government, the technical skills and innovative potential required to design effective responses are often located in the private sector.
- Small and medium-sized enterprises (SMEs) are responsible for up to 60 percent of total carbon emissions but are rarely engaged by government due to their incredible diversity and abundance.
- SMEs possess an array of assets — including a close link between the vision of the entrepreneur and the firm’s operations, and a nimble organizational structure that allows the firm to recognize market opportunities and capitalize on them — that make them ideal sustainability innovators.
- SMEs face barriers to responding to sustainability challenges such as greenhouse gas (GHG) reduction. Most of these barriers pertain to capacity gaps because, relative to larger firms, SMEs often lack the time, personnel and technical expertise to identify GHG reduction opportunities.

### Introduction: Canada’s Climate Change Commitments in Light of the Paris Negotiations

On April 22, 2016, Canadian Prime Minister Justin Trudeau signed the Paris Agreement to limit and respond to global climate change. He was joined by representatives from 174 other countries — more than have ever signed a deal of this kind. The Paris Agreement emerged out of the twenty-first session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC). The agreement states that the parties should work to limit the increase in global average temperatures over pre-industrial levels to 1.5°C, an ambitious goal supported by Canadian Minister of Environment and Climate Change Catherine McKenna. Holding global warming to this level can only be achieved by making specific commitments to reduce GHG emissions, and until new targets are set by the current federal government, Canada will be held to the targets set by the previous government led by Stephen Harper: emissions at 30 percent below 2005 levels by 2030.

While the Paris Agreement is an important symbol of the global collective will to significantly reduce GHG emissions and to manage the impacts of climate change, it does not enter into force until the next step is taken: 55 countries representing at least 55 percent of global emissions must ratify it. In other words, domestic decisions breathe life into international law, giving it force and effect for individuals and communities. Canada (and other countries, especially large emitters such as the United States and China) must develop ambitious, nationwide climate change policies that target the largest sources of emissions while also limiting potential trade-offs and unintended consequences for vulnerable populations.

On March 3, 2016, Trudeau emerged from his First Ministers’ Meeting with premiers and territorial leaders to announce that they were taking steps to create



a national climate change plan, including a price on carbon.<sup>1</sup> Not long before the Paris negotiations, Ontario's premier, Kathleen Wynne, had declared that the province would be developing a cap-and-trade system to price carbon, joining Quebec, Manitoba, British Columbia and some US states in the Western Climate Initiative,<sup>2</sup> while British Columbia has had a revenue-neutral carbon tax in place since 2008. In Alberta, the heart of Canada's resource-based economy, Premier Rachel Notley confirmed that a price will be placed on carbon starting in 2017, a controversial move by a new provincial government grappling with dramatically diminished oil and gas revenue.

Although responsibility for responding to climate change and other sustainability problems (such as biodiversity conservation, social equity, air quality and water quality) is commonly placed squarely on the shoulders of government, the technical skills and potential for innovation required to design effective responses are often located in the private sector. Small businesses, in particular, are responsible for approximately 40–60 percent of commercial GHG emissions in countries such as the United Kingdom and Canada (Aragón-Correa et al., 2008; Martín-Tapia, Aragón-Correa and Rueda-Manzanares 2010), but they are rarely engaged by government, due to their incredible diversity and abundance. This policy brief aims to address the potential gap between Canada's ambitions and the realities of creating resilient, low-carbon communities by proposing a collaborative and creative avenue to achieving both GHG reduction and a more transformative approach to sustainability.

This brief explores the idea of sustainability entrepreneurship, and the potential role that small businesses, if they are coordinated effectively, could play in response to the climate change challenge. Examples of small business innovation and unique partnerships with different levels of government are offered as evidence for the sustainability potential in this sector.

## What Is Needed to Reach Canada's Climate Change Goals?

In answer to the Kyoto Protocol, and in the run-up to the more recent Paris Agreement, climate change mitigation and adaptation strategies have multiplied at the municipal, provincial and federal government levels in Canada. Yet the momentum

1 While this policy brief focuses mainly on the topic of reducing GHG emissions, it has frequently been argued that the types of transformative change necessary to build fundamentally resilient, low-carbon communities require more holistic sustainability approaches (Burch et al. 2014; Shaw et al. 2014). A summary of these perspectives can also be found in Burch (2016).

2 The Western Climate Initiative, Inc., is a non-profit corporation that was formed to support the design and implementation of GHG pricing and trading (such as cap-and-trade) policies in North America. More information can be found at [www.wci-inc.org](http://www.wci-inc.org).

behind the creation of these strategies has not been enough to produce significant reductions in GHG emissions. However, municipalities, many of whom pursued the "five milestone" system for measuring and reducing GHG emissions as offered by the Federation of Canadian Municipalities and ICLEI (the latter founded as the International Council for Local Environmental Initiatives but now known in full as Local Governments for Sustainability),<sup>3</sup> often first addressed the emissions over which they had direct control (such as those from municipally owned facilities, buildings and fleets). These sources typically generate only one to three percent of total community emissions, suggesting the need for climate change action plans that target emissions from residences, businesses and industry. Nonetheless, this milestone-based system has enabled municipalities to also identify the key sources of emissions in their communities, including the residential and commercial sectors.

Each level of government holds jurisdiction over different sources of GHG emissions, necessitating coherence and compatibility among policies at each level (Burch et al. 2014; Dale 2009). For example, while municipalities develop land use plans that can shape the need for individually owned vehicles, provinces play a role in public transit funding and the federal government regulates fuel efficiency. Provincial ministries of economic development and employment, along with ministries of environment and climate change, are well placed to enable municipal governments that have close physical links to the SME community. But even if all three parties are fully supportive of emissions reductions (which is far from assured), other gaps must be filled to deliver results. Are fuel-efficient and cost-effective vehicle technologies available? Do employers encourage employees to work from home or share rides? Do smartphone applications enable drivers to avoid congestion and conserve fuel? SMEs might be able to provide answers to these questions, but they are rarely engaged in the process of climate-change decision making. While SMEs possess particular capacities that make them ideal innovators in the sustainability space, they also face distinct barriers that require partnerships with government, other SMEs and civil society groups to overcome.

## What SMEs Have and What They Lack

It is no surprise that SMEs are often ignored when climate change mitigation is being discussed. Transnational corporations such as Walmart emit quantities of GHG emissions equivalent to those of small countries (International Energy Agency [IEA] 2011), and can make decisions that have upstream and

3 ICLEI's five milestone system provides guidance to municipalities that are tracking their corporate and community GHG emissions, and consists of measuring emissions, setting targets, developing an action plan to address the emissions, implementing the action plan and monitoring progress. More information can be found at [www.icleicanada.org/programs/mitigation/pcp](http://www.icleicanada.org/programs/mitigation/pcp).

downstream ripple effects through vast supply chains. While many of the suppliers to retailers such as Walmart are themselves transnational corporations, others are SMEs that are struggling to grow, compete and innovate.

The sheer number of SMEs makes them an unwieldy and diverse “sector” with which to engage: fully 99.86 percent (over one million) of Canada’s businesses are considered small or medium (having fewer than 500 employees), and the vast majority of these (98.2 percent of Canada’s businesses) have fewer than 100 employees (Industry Canada 2013). More important than the quantity of registered businesses, however, is their role in the economy. In 2012, SMEs employed 89.9 percent of the total private labour force in Canada, or around 10 million individuals, and created approximately 52 percent of private sector GDP (*ibid.*).

In comparison with their larger, multinational counterparts, SMEs are generally understood to be nimble firms that can recognize market opportunities and capitalize on them with fewer organizational encumbrances (Bos-Brouwers 2010; Masurel 2007; Moore and Manring 2009). The individual entrepreneur or visionary who leads an SME may be more closely linked to the daily activities of the business (Hansen and Klewitz 2012), allowing them to make adjustments to organizational practices (such as hiring, promotion and employee engagement programs, for instance) and product development to reflect sustainability objectives. As such, the owner’s own values and identity (for instance, as a socially responsible leader) are more likely to influence the SME’s activities (Rodgers 2010). SMEs might also be deeply embedded in their communities or physical neighbourhoods, leading to a social enterprise logic wherein social or environmental benefit is of equal importance to profit.

One of the most important assets that SMEs possess, especially when compared to government, is an intimate knowledge of the products or services that they offer and the organizational practices that go into their development. This knowledge allows an SME, if it is also equipped with the relevant information and capital, to tailor sustainability solutions that address key sources of GHG emissions and resource consumption. For instance, with the help of a Vancouver-based social enterprise (Climate Smart<sup>4</sup>) the River Market in Westminster Quay engaged food vendors to minimize food waste and maximize recycling, while it also upgraded heating, ventilation and air conditioning systems to reduce emissions by 23.8 percent between 2011 and 2013. Similarly, Aggressive Tube Bending, a steel-fabricating service

4 Climate Smart is a social enterprise that trains SMEs to measure their GHG emissions and make the technical or organizational shifts required to reduce them. These activities are often carried out through a partnership model, in which municipal and regional governments provide funds to reduce the costs faced by SMEs in pursuing Climate Smart’s training program (while simultaneously helping to reach policy priorities set out by partnering governments). For more information see [www.climatesmartbusiness.com](http://www.climatesmartbusiness.com) and [www.vancouvereconomic.com/climatesmart/](http://www.vancouvereconomic.com/climatesmart/).

in Vancouver, obtained incentives from the provincial electrical utility (BC Hydro) to replace old air compressors. This change led to a 13 percent reduction in annual GHG emissions with a payback period of only 1.6 years. Clearly, opportunities exist to reduce GHG emissions and material consumption with modest payback periods and even the potential for increased profits in the short to medium term — but incentives and technical expertise must be available to reveal these opportunities.

Despite these valuable assets, however, SMEs responding to sustainability challenges can be impeded by gaps in their own capacity. Relative to larger firms, SMEs often do not have the time, personnel and technical expertise to identify GHG reduction opportunities (Granek and Hassanali 2006; Hansen and Klewitz 2012). With less capacity might come risk aversion or conservatism, leading some SMEs to be viewed as reactionary rather than proactive in the face of environmental regulation (del Brío and Junquera 2003), or in the case of a carbon cap-and-trade system that only targets large emitters, to escape regulation completely. Sufficient, dependable funding for organizations in the start-up stage might also prove central to developing and implementing a sustainability vision.

These capacity gaps are specific to individual firms, but a collective challenge exists as well. SMEs often lack the coordination mechanisms necessary to give them a powerful voice in decision making at the local, provincial, national and international levels. Chambers of commerce, boards of trade, business associations, sector-by-sector networks (such as the Canadian Clean Technology Innovation partnership, a network among non-governmental organizations, investors and clean technology companies, whose aim is to increase the influence and success of this sector in Canada) and transnational networks begin to fill this gap, but participation in these organizations can be viewed as yet another role to be filled by an already overworked entrepreneur.

Taking these capacity gaps and barriers into account, it is apparent that significant motivation already exists among some SMEs to apply an entrepreneurial approach to sustainability challenges. These motivations are diverse, including cutting costs through energy or materials efficiency (Bos-Brouwers 2010; Friedman, Miles and Adams 2000), employee retention, social responsibility and regulation (Masurel 2007), as well as government-initiative incentives (Granek and Hassanali 2006) and a longer-term focus on sustainability objectives (del Brío and Junquera 2003).

So what does it take to transform a latent potential for sustainability innovation into tangible action on pressing issues such as climate change, overcoming significant barriers in the process? Ultimately, achieving this tangible action is a challenge of multi-level governance; SMEs are one set of actors that can



be enabled by incentives, partnerships and policy to innovate more actively in the sustainability space.

## A Multi-level Approach to Triggering and Accelerating SME Innovation

A common assumption, subtly reinforced during Canada's federal election of 2015 (for instance) is that economic prosperity and environmental or social sustainability are fundamentally at odds with one another — a benefit to one comes at direct cost to another. This assumption shapes perceptions of GHG reduction, perpetuating the myth that reducing emissions is inherently costly and has the potential to slow economic growth from the scale of the firm to the nation.

Since 2000, however, more than 20 countries have reduced annual GHG emissions while growing their economies (Aden 2016). Although there might be carbon leakage implicit in these numbers (i.e., in some countries the industrial share of the GDP went down, which means manufacturing was moved elsewhere), something else was at play because the average change in industrial share was three percent while the average emissions reduction was 15 percent (ibid.). Globally, GHG emissions remained flat in 2014 and 2015, while GDP grew by 3.4 percent and 3.1 percent respectively (IEA 2016).

The first step toward the inclusion of SMEs in the effective governance of sustainability is to challenge the assumption that climate action is costly, and to explicitly cultivate win-win solutions that are economically attractive for individual countries, regions or firms.

The next step is to forge partnerships between SMEs and other actors who can fill capacity gaps, scale up action and support innovation with policy. There appears to be considerable agreement within the literature that, while SMEs may have significant transformative potential, external organizations are instrumental in engaging SMEs in improving the environmental aspect of their operations. Intermediaries and networks or collaborative spaces can be crucial tools in the effective governance of sustainability transitions, particularly in urban spaces. It is at this scale, rather than at the national or international scale, that dialogue can most effectively be fostered and trust built. Even so, the federal government in Canada can play a central role in fostering urban sustainability entrepreneurship by developing a nation-wide SME engagement strategy that provides incentives for potentially transformative innovations, delivers crucial research and development support, and connects SMEs with non-governmental organizations and other civil society partners.

Ultimately, sustainability entrepreneurship and the growing momentum behind social enterprise models create an opening to fundamentally redefine what is meant by economic growth. Long-term profits are more likely to be secured by firms that

address sustainability concerns and remain competitive in a shifting global market. Even so, well-being consists of more than profit, and small businesses can contribute to crucial health, equity, environmental and community vitality outcomes.

## Policy Recommendations

### Build a Canada-wide strategy for engaging SMEs on both climate change mitigation and adaptation.

The key features of SME engagement on climate change and sustainability across Canada have been its modest scale and piecemeal approach. A coherent, ambitious Canada-wide strategy has the potential to mobilize a much wider swathe of the Canadian economy, facilitating a transition toward a more resilient, low-carbon development pathway. This strategy requires collaboration among municipal, provincial and federal governments (with leadership by a federal ministry such as Innovation, Science and Economic Development or Environment and Climate Change), taking into account the multitude of incentives and tools that are already in existence. Civil society and non-governmental organizations will play a central role in facilitating this collaboration, serving as trusted messengers to the business community.

### Send the right signals: put a price on carbon to address market externalities.

Without a price on carbon, individuals, firms and governments lack the incentive to find cost-effective strategies to reduce GHG emissions and manage resource consumption. While a price on carbon is not a silver bullet, it is a first step toward acknowledging the true social and environmental costs of doing business. Provincial carbon pricing schemes are a first step toward this objective, but a harmonized federal approach is necessary to ensure that commitments made under the Paris Agreement are reached, and that businesses and individuals based in one province are not unfairly penalized relative to their counterparts elsewhere.

### Learn more about SMEs.

Given the incredible diversity of small businesses in Canada, any initiatives to engage them must be based on a robust understanding of their motivations, capacities and barriers. While case studies of sustainability leadership exist, studies that explore the transformative potential of SMEs not explicitly identifying as environmental leaders or social innovators are scarce.

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## About the Author



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*CIGI Paper No. 105*  
Jeff Rubin

Prime Minister Justin Trudeau has announced his intention of forging a national climate change strategy with the provinces to reduce carbon dioxide emissions to at least 30 percent below their 2005 levels by 2030. Yet without a national standard for emissions pricing, and a federal mechanism to enforce it, the country has been left with a hodgepodge of highly disparate provincial emissions regulations that put Canada in no better position to achieve current emissions targets than it was to meet past targets. The federal government needs to assume a leadership role by establishing a national carbon tax that can be harmonized with existing provincial pricing mechanisms to achieve national emissions reduction targets.



### Limiting Dangerous Climate Change: The Critical Role of Citizen Suits and Domestic Courts — Despite the Paris Agreement

*CIGI Paper No. 101*  
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This paper focuses on the emerging new role of citizen suits, domestic courts and human rights commissions in limiting dangerous climate change. Given the failure of states to stop the almost constant increase in global carbon emissions (and now the worrying practical and legal gaps in the 2015 Paris Agreement), frustrated citizens are increasingly looking to domestic courts to require governments to mitigate emissions and limit climate harm. This emerging role is demonstrated in three important 2015 decisions: *Urgenda* from the Netherlands; *Leghari* from Pakistan; and *Foster v Washington Department of Ecology* from the United States.



### The Impact of Green Banking Guidelines on the Sustainability Performance of Banks: The Chinese Case

*CIGI Policy Brief No. 79*  
Olaf Weber

The Green Credit Policy introduced guidelines and regulations for integrating environmental issues into financial decision making. The results of the analysis presented in the policy brief suggest that the environmental and social performance of Chinese banks improved significantly between 2009 and 2013 because the Green Credit Guidelines require banks to become active with regard to integrating environmental risks into their credit risk assessment procedures.



### Definitional Issues in the Sustainability Analysis Framework: A Proposal

*CIGI Policy Brief No. 77*  
Martin Guzman

The definition of public debt sustainability in the International Monetary Fund debt sustainability analysis framework refers to fiscal adjustment and primary balance as the central elements of the policy course that is most likely to ensure debt sustainability; the induced policy approach is not contributing to the recovery of economies in distress, and instead it is contributing to delays in sovereign debt restructuring, as well as to insufficient debt relief (when the restructuring occurs) for distressed sovereign debtors. The definition needs to be revised to be in tune with macroeconomic theory that is overwhelmingly supported by evidence.



### Growth, Innovation and COP21: The Case for New Investment in Innovation Infrastructure

*CIGI Policy Brief No. 73*  
Céline Bak

Forged by private and public sector cooperation, Mission Innovation was announced at the twenty-first Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change as a commitment to doubling, by 2020, the investment in energy innovation by participating countries. Mission Innovation heralds a new period of active private-public sector engagement on energy, climate and innovation policy.



### Uncovering the Implications of the Paris Agreement: Climate Change as a Catalyst for Transformative Sustainability in Cities

*CIGI Policy Brief No. 72*  
Sarah Burch

This policy brief examines the power of exploring synergies between responding to climate change and other development priorities in cities: in other words, can decision makers devise response strategies that are both adaptive and mitigative, while simultaneously creating healthy, vibrant, innovative communities? Using examples from communities around the world that take a holistic approach to sustainability rather than addressing climate change in isolation, this brief uncovers the roots of climate change co-benefits, and possible governance strategies for achieving them.



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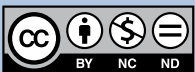
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