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**Regional Sustainability Strategies: A Comparison of Eight Canadian Approaches**

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**Summary:**

As municipalities set out to tackle sustainable development, it is useful to examine existing Canadian regional sustainability plans/strategies. This paper summarizes the approaches taken by eight different Canadian regions. It highlights the variances in plan formulation and content, focusing on the potential of multi-time horizon planning and of collaborative strategy through partnership models.

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## Introduction

It is not news to Canadian planning professionals that sustainability is all the rage these days. Whether to give the city an attractive “green” image, or to meet the funding requirements of the Gas Tax Agreements, planners and other municipal practitioners are attempting to make sense of sustainability and apply it in their local context. In some ways, the tenets of sustainability – integrating social, economic and environmental concerns; strategizing for long term development; including multiple stakeholders’ voices in decision making – are not so different from those of good planning. As such, planning and sustainability make natural allies.

The concept of a *sustainable city* emerged in the 1990s, and is outlined in a series of United Nations agreements including Agenda 21 (UNCED, 1992), the Habitat Agenda (UNCHS, 1996), and the Johannesburg Plan of Implementation (WSSD, 2002). Since at least 1992, when Hamilton adopted its Vision 2020, Canadian municipalities have been engaging in the creation of sustainability strategies. More recently, the momentum has increased along with heightened stakeholder awareness. Numerous frameworks for conceptualizing and enacting sustainability at a municipal level are available including Local Agenda 21<sup>1</sup>, The Natural Step for Communities<sup>2</sup>, and Partners for Long-Term Urban Sustainability (PLUS)<sup>3</sup>. To apply integrated sustainability thinking, many municipalities are drawn to regional approaches to sustainability planning. Regional approaches allow for sustainability plans to be more geographically meaningful (especially when boundaries are set at the bio-regional level). They also allow neighbouring or overlapping jurisdictions to pull their resources together and to align their efforts for greater effect. Finally, they can also create further visibility and excitement in a region around sustainability plans.

In this context, and as municipalities set out to create their sustainability plans, it is useful to examine existing Canadian regional sustainability plans/strategies. This paper summarizes the sustainable development planning approaches taken by eight different Canadian regions. It highlights the variances in plan formulation and content, and the potential of collaborative strategy, predictive modeling (including back-casting), and multi-time horizon planning.

## Methodology

The research underlying this article was conducted as a pilot study for a PhD thesis. In order to focus the analysis, the study focused on regions with a population larger than 300,000. As the purpose was to study variations in formulation of the plans, regions with plans that seemed to have similar features to pre-existing plans from another region of similar size were excluded. Further selection criteria were applied to ensure the final set of regions exhibited variation in the time horizon of the plan, variation in formulation process, and variation in population size. The selected comparative regions from east to west are: Halifax, Montreal, Toronto, Kitchener, Hamilton-Wentworth, Edmonton, Calgary, and Greater Vancouver. In some plans, the boundaries were set as the city, and in others as the regional district / municipality; thus the term region means a geographic region and not necessarily a specific regional government.

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<sup>1</sup> For more information on Local Agenda 21 see: [www.iclei.org](http://www.iclei.org); [www.unhabitat.org/](http://www.unhabitat.org/); and (in French) <http://www.a211.qc.ca/>

<sup>2</sup> For more information on TNS for Communities see: [www.naturalstep.ca](http://www.naturalstep.ca)

<sup>3</sup> For more information on the PLUS Network see: [www.icsc.ca](http://www.icsc.ca) and <http://plusnetwork.org/>

Once the short list of eight regions was generated, available municipal plans, sustainable development strategies, and/or environmental plans and information about the content and process were collected. The data collection for this phase of the study was limited to documentation publicly assessable online through various municipalities' websites. Table 1 outlines the regions and their plans, strategies or approaches used.

**Table 1: Relevant Documents**

Region	Plans of Interest	Plan Type	Timeframe
Halifax	<ul style="list-style-type: none"> <li>No SD plan, but Economic Strategy</li> <li>Regional Plan</li> <li>TNS Report and Issue based strategies (2004)</li> </ul>	Economic Strategy Official Plan Issue-Specific Plans	Under development 2005 – 2030 (~25 years)
Montreal	<ul style="list-style-type: none"> <li>Sustainable Development Strategy</li> <li>Master Plan</li> </ul>	SD Strategy Official Plan	2005 – 2009 (~5 years) 2004 – 2014 (~10 years)
Toronto	<ul style="list-style-type: none"> <li>Toronto Master Plan</li> <li>Ecological Plan</li> </ul>	Official Plan Environment Plan	2002 – 2032 (~30 years) 2000 – 2025 (~25 years)
Kitchener	<ul style="list-style-type: none"> <li>Environmental Strategic Plan (1992)</li> <li>Master Plan</li> </ul>	Environment Plan Official Plan	1992 - ... Updated yearly 2005 - ... Updated at 5 years
Hamilton	<ul style="list-style-type: none"> <li>Vision 2020</li> <li>New Official Plan</li> <li>GRIDS (Growth Strategy)</li> </ul>	SD Strategy Official Plan Issue-Specific Plan	1992 - 2020 (~28 years) (~20 to 30 years)
Edmonton	<ul style="list-style-type: none"> <li>Urban Sustainability Action Plan (2004)</li> <li>Plan Edmonton (1998)</li> <li>Edmonton's Second Century: Sustaining the Vision - Corporate Business Plan</li> <li>Environmental Strategic Plan (1999)</li> </ul>	SD Action Plan Official Plan Corporate Plan  Environmental Strategy	2004 - ? (~5 years) 1998 – 2008 (~10 years) 2005 – 2007 (~2 years)  1999 – 2019 (mostly short term goals)
Calgary	<ul style="list-style-type: none"> <li>100-Year Imagine Calgary</li> <li>The Calgary Plan (master plan)</li> <li>ISO 14001 (Enviro. Management System)</li> <li>Environmental Policy (2001)</li> <li>Triple Bottom Line Policy Framework (2004)</li> <li>Climate Change Plan and Report</li> </ul>	SD Strategy Official Plan Process Environment Policy Process Issue-Specific Plan	2006? – 2106 (~100 years) 1995 – 2024 (~30 years)
Vancouver	<ul style="list-style-type: none"> <li>Long-term Plan for Greater Vancouver</li> <li>Liveable City Plan</li> </ul>	SD Strategy Official Plan	2003 – 2103 (~100 years) 1996 - 2020 (~25 years)

### Variations among Selected Regions

The first apparent variation was in the types or titles of the plans. All regions had an official plan or municipal plan, as often mandated by provincial regulations, which dealt with the subject of sustainability to some extent. The real variations became apparent when considering the additional plans and strategies that complement the official plan. Some regions such as Vancouver, Montreal, Hamilton and Calgary, have created stand-alone sustainable development strategies. Each of these followed different frameworks, had different champions, and employed different collaboration models. Other relevant plans that exist in some regions are an environmental strategy, economic strategy, corporate business plan and/or growth plan which might include or be complemented by issue-specific strategies on topics such as climate change, waste management, air quality or energy. Cross cutting environmental strategies exist in Edmonton, Toronto and Kitchener, while Halifax is creating multiple functional plans to cover various areas of environmental concerns.

Other important differences among regions are related to the models for stakeholder engagement, and framing of the time horizon. Each of these differences has implications for both process and content of the plans, as described further below.

## Partnership versus Participation Models of Stakeholder Engagement

When it comes to planning for sustainability, engaging a variety of stakeholders is not only a good idea, it is essential. This is because the goal of sustainable development is much larger than the role or mandate of any one organization. Additionally, such a hefty goal cannot be reached without significant buy-in and sense of ownership from the larger community. While the municipal or regional government must always be involved in a regional sustainability strategy, other levels of government, academic institutions, local businesses, non-governmental organizations, and civic society, in general, have key roles to play.

There are various models available for engaging stakeholders, two of which are worth discussing in the context of this study. One approach focuses on **participation**. It involves an invitation from the municipality to receive input from stakeholders who can have an impact on or be impacted by the plan. If done well, this approach allows for an understanding of the interests, hopes and fears of different stakeholders, which in turn shape the sustainability plans the municipality commits to. The result is a document that is owned by the local government but reflects on the desires of the community. The participation model is used in the formulation of the official plans in the eight regions studied.

A second engagement model that has been used specifically for sustainable development planning is a **partnership** model. Here, the invitation is not simply for stakeholders to give input into a planning process, but to collaborate on a joint planning project as organizational partners. The results this process is the creation of a document that is owned by multiple organizations, which includes each organization's commitment to actions towards achieving the collective goals. Box 1 displays how the partnership model allows for the inclusion of considerations that typically exceed the jurisdiction of the municipality through the example of encouraging a local "green economy".

### **Box 1 - Examples of Green Economy Considerations in Regional Sustainable Development Plans**

Montreal (Partnership):

- Adopt good sustainable development practices in business, institutions and industries
- Create an information network
- Implement an Environmental Management System (roles for both city and businesses defined)
- Green Procurement (both city and partners)
- Product design based on waste reduction (universities, businesses, city)

Halifax (Participation):

- Urban Streetscape Design to enhance desirability as an economic and cultural centre
- Natural Resource and Agriculture Zone
- Public transportation based around residential/mixed use clusters

As can be seen in Table 2, Vancouver, Montreal, Calgary and Hamilton all follow a partnership model with some variations. One implication of the partnership model (as opposed to the participation model) is that the lead organization (or **champion**) may not necessarily be the municipality. Instead, there is room for other partners to have significant roles. For example, in the case of Vancouver, the Sheltair Group consulting firm partnered with the regional government (GVRD), a university (University of BC), a non-governmental organization (International Center for Sustainable Communities) and a business association (Canadian Gas Association) to lead the creation of their 100-year strategy. The City of Montreal has been the lead on their strategy, but has teamed up with numerous partners in both the formulation and implementation phases, each of whom reports back to the municipality on its own progress towards the collective sustainable city goals. In Hamilton, a citizen's task force, in consultation with a wide range of citizens, developed their Vision 2020, and municipality incorporated one quarter of the recommendations into their Official Plan. The municipal implementation

proceeded, but struggling with the implementation of the community goals, the local government are developing more of a partnership model.

**Table 2: Variations in Frame and Champion of Collaborative Strategies (Partnership Model)**

Concept	Variable	Calgary	Hamilton	Montreal	Vancouver
Demographic	Province	Ab	On	PQ	BC
Champion	Municipality (M), Consultants (C) and/ or NGO (N)	M N	M	M	C
Frame	Time Horizon for Collaborative SD Strategy	100	28	5	100
	Modeling – Backcasting (B)	B			B

To summarize, the collaborative partnership model appears to have certain advantages as an engagement model for regional sustainability planning. These include:

- Diversity of organizational participation in formation and implementation
- Geographic and community goals rather than organizational goals
- Diverse frameworks, goal types, perspectives and tools
- Overcoming some jurisdictional barriers
- Tapping into the creativity and excitement of the community
- Strong buy-in from partners

Drawbacks of the partnership model include that it requires an investment of time from the various partners in creating relationships at the onset of the planning process, which then must then be maintained during the implementation. There is no one formula for the partnership model as each collaboration has unique features, making it a difficult to implement without a visionary champion willing to take some risks and explore a new approach. Also, by engaging in a common vision, there is the potential for some loss of control and flexibility for some of the partners.

### Time Horizon and Modeling

The content of a sustainability plan is highly influenced by the way the process is framed. Particularly of interest to the variance found among these case studies are the time horizons and the predictive modeling used. Sustainable development, by definition, implies thinking about intergenerational timeframes which are often difficult to address in a short-term strategy. At the same time, short-term strategies may be desirable to hold actors accountable for implementing actions that are immediately visible, demonstrating quick successes as a way of inspiring more change. There is large variation among the eight municipalities studied on the **time horizon** chosen for each sustainability plan, as can

Box 2 - Examples of Planning for Water in Regional Sustainability Plans of Different Time Horizons

**Montreal (5 years):**

Action items such as “control the illicit usage of water” or “increase water access points”

**Halifax (25 years):**

Planning for land designation of residential development based on feasibility of water and sewer infrastructure expansion over 25 years

**Vancouver (100 years):**

Plan water supply infrastructure based on decreased supply due to climate change and increased population

be seen in Table 1. Table 2 outlines the four sustainable development strategies that used the partnership approach. Vancouver and Calgary use a 100-year timeframe, Hamilton has a 30-year timeframe, while Montreal has a 5-year timeframe.

The implications are that 100-year documents are both visionary and strategic and allow for radical innovation but are much harder to sustain partner involvement, 2-5 year documents are more action focused and allow for immediate buy-in on implementation, and 15-30 year documents are somewhere in between. Ideally, a municipality will want to focus on all three levels and conduct multi-time horizon planning. Box 2 demonstrates the content implications of three different time horizons. Generally, the implications of different time horizons include:

- Different integration of ecological, social and economic considerations. (Ecological considerations such as climate change tend to become more important in long term planning, while economic considerations are more immediate.)
- Different capacity to accommodate ecological limits and intergenerational timeframes of infrastructure projects.
- Different topics are covered in more depth based on their cycle and strategy.

A final variation that is worth pointing out is the differences in predictive models used in the planning. Traditionally, long-range predictions are done through forecasting; extrapolation of past trends, building scenarios for future trends, or modeling future trends. More recently, there has been a movement towards what is referred to in the literature as “backcasting” (Robinson, 1988, 2003). **Backcasting** involves defining ecological limits and/or determining ‘most desirable future outcomes’ well into the future, determining current benchmarks, and creating paths from the present to that long-term goal, while staying safely within the sustainability parameters. The backcasting approach was used by Vancouver and Calgary and is gaining more momentum, especially through the work of organizations such as The Natural Step Canada (for example in Whistler and Canmore).

## Conclusion

As shown in this paper, the eight case studies on regional sustainable development planning differ in a number of ways. While each approach has its merits and drawbacks, it is important for municipalities setting out to do sustainability planning to select their approach carefully and with awareness of the possible set of tools and models available to them to draw on. Specifically this article highlights the potential benefits of the partnership model, of multiple time horizons, and of backcasting. Future research by the lead author will focus on governance models during the implementation of collaborative sustainability strategies.

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