

Sustainable Development: *A Primer for a Sustainable York Region*

Purpose of the Report

This informal report offers an introduction to the concept, definition and components of sustainable development. The Federal Government's position and role on promoting sustainability in Canadian communities is also discussed. The key questions posed are:

- What is the origin and definition of sustainable development?
- How does the Federal Government interpret the concept of sustainability?
- How committed is the Federal Government to creating sustainable communities?
- What are Sustainable Development Strategies?
- What are some Canadian and International examples of best practices in sustainable development?
- Is York Region practicing sustainable development? How can we improve?

The notion of sustainable development is universal, but its definition is subject to interpretation and varies across numerous disciplinary backgrounds. Sustainable development refers to a holistic approach of interconnecting the economy, society and the environment to achieve a state of well-being. York Region has intuitively adopted this approach to decision-making in its planning and growth management policy framework and programs.

Analysis

1. What is the origin and definition of sustainable development?

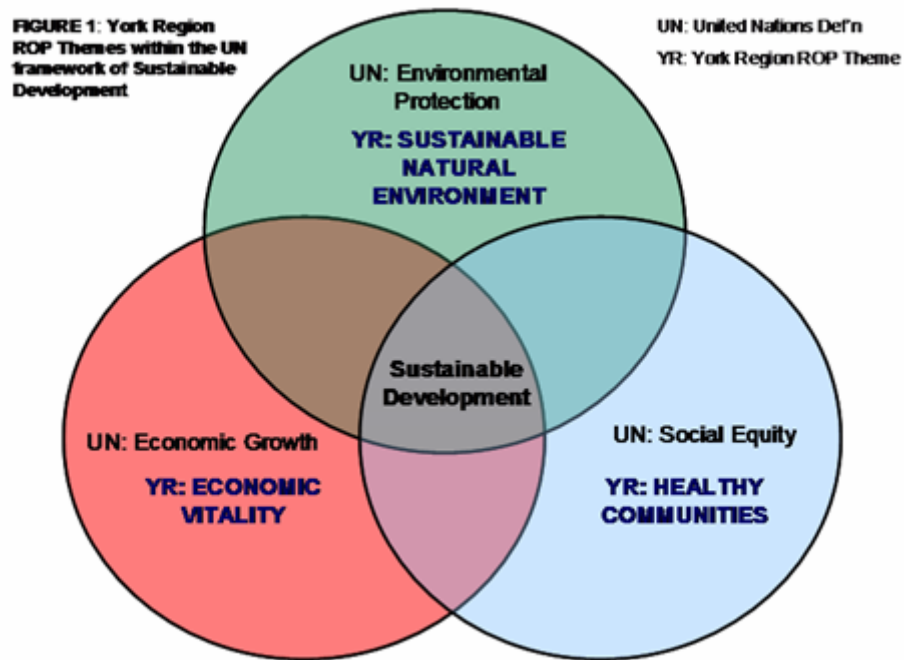
- The concept of sustainable development has its origin in environmental protection. During the 1960s and 1970s, the typical approach to growth was to expand the economy at the expense of the environment and social equity. During the 1980s, the international community agreed that the existing model of economic development was causing natural resource depletion and increasing poverty, particularly in developing nations.¹ In effect, a new paradigm of growth and development was created through the notion of sustainability.
- In 1987, the United Nations Commission on the Environment and Development produced the *Brundtland Commission Report* that defined sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*”²

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- This definition provided the basis for the 1992 United Nations Earth Summit in Rio de Janeiro wherein the 18 principles of sustainability were established. The *Rio Declaration* emphasized, among other factors, people’s right to a productive life in harmony with nature.³

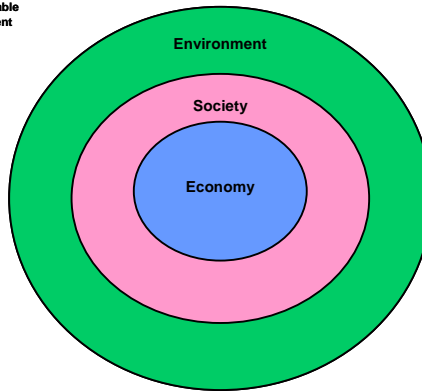
Sustainable Development Conceptual Frameworks

- The United Nations recognizes that sustainable development across all levels of government and economic sectors involves “triple bottom-line sustainability”. That is, the simultaneous creation of economic, social and environmental value with a focus on positive outcomes, instead of trade-offs between the three elements. If one considers the three elements to be overlapping circles, the area of overlap in the centre is human well-being as shown in Figure 1.



- The International Council for Local Environmental Initiatives (ICLEI) offers another interpretation of sustainable development that better reflects its environmental roots. A sustainable community is one that strives to grow their economy within the given local societal and environmental limitations and capacities. As Figure 2 demonstrates, the economy operates in a manner that maintains social equity, all within the context of environmental conservation.⁴ As will be discussed later, the Federal Government appears to have adopted this conceptual approach to sustainable development.

Figure 2: ICLEI Framework of Sustainable Development



- In 2002, The United Nations Environment Programme (UNEP) in partnership with ICLEI and the Environmental Protection Authority in Victoria, Australia organized an International Charette to develop 10 Principles for Sustainable Cities known as the *Melbourne Principles*. Some of the key principles include:⁵
 - Provide a long-term vision for cities based on: sustainability, intergenerational, social, economic and political equity; and their individuality;
 - Enable communities to minimize their ecological footprint; and,
 - Enable continual improvement, based on accountability, transparency and good governance.
- The United Nations and ICLEI offer vague definitions and conceptual frameworks of sustainable development which are subject to interpretation across many disciplinary backgrounds, cultures and political structures.
- The goal of sustainable development is not fixed at one point in time, but rather, a cyclical process involving on-going evaluation and improvement of public policy and implementation.

Sustainable development refers to a *holistic* approach to effective and on-going decision-making in government that focuses on positive outcomes, emphasizes economic development within the local societal and environmental limitation and capacity, and simultaneously creates value across these three elements. This decision-making process is one that is participatory, transparent, equitable and accountable, and is unique to each community.⁶

2. How does the Federal Government interpret the concept of sustainability?

The Kyoto Protocol Agreement

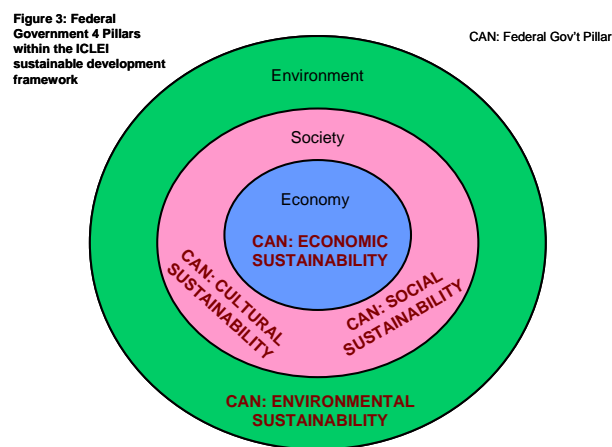
- Canada's commitment to *The Kyoto Protocol Agreement* of 1997 prioritized the issue of sustainability on the Federal Government's political agenda. In accordance with the ICLEI model of sustainable development, the *National Roundtable of the Economy and Environment (NTREE)*

initiated the *Urban Sustainability Program* which aims to balance economic growth with environmental preservation by:

- Promoting “green” operations in business and government;
- Supporting the use of public transit;
- Promoting sustainable infrastructure; and
- Encouraging energy and land efficiency.⁷

The New Deal for Cities

- The Minister of Infrastructure and Community, Mr. John Godfrey, stated that the New Deal for Cities is “*about all orders of government working in harmony in four priority areas of sustainability: environmental, economic, social and cultural sustainability*”.⁸ Figure 3 illustrates how these pillars conform to the ICLEI sustainable development framework.



- The following quotations by Mr. John Godfrey, Minister of Infrastructure and Community appeared in various speeches summarize the Federal Government’s position on sustainability and the New Deal for Cities.

“For us, this is about more than specific environmental challenges like reducing greenhouse gas emissions or its related economic benefits. We take a much broader view...” – September 30, 2004.⁹

“By sustainable infrastructure...we mean infrastructure that enhances economic, social and cultural opportunity – the quality of life of our citizens both today and in the future – while protecting and improving the quality of our environment upon which people and economies depend.” – September 30, 2004.¹⁰

“We’ve got to reach for sustainability, not as some nebulous Shangri-La la land or trendy buzzword but as a practical concept that can be implemented and measured. For this reason those of us in the infrastructure portfolio have been working with Environment Canada to determine exactly what it is we mean by ‘sustainable’ or ‘green infrastructure’.” – November 1, 2004.¹¹

The Federal Government's concept of sustainable development is in accordance with that of the UN definition and ICLEI model; however the specific issues and objectives that constitute sustainability in Canada appear to be continuously evolving. Presently, the Federal Government seems to accord environmental protection a high priority to meet its Kyoto obligations by promoting "green" economic and infrastructure, and alternative transportation methods, such as public transit.

3. How committed is the Federal Government to creating sustainable communities?

Funding Programs for Canadian Municipalities

- The following lists some of the main federal funding programs to assist regions and municipalities in attaining sustainability as discussed above:
 - *Green Municipal Enabling Funds*: These funds consist of a \$250 million endowment from the Federal Government to the Federation of Canadian Municipalities (FCM) and are designed to remove investment barriers to green municipal infrastructure, such as real or perceived risks and higher capital costs. The Fund's priorities are to cut greenhouse gas emissions, improve local air, water and soil quality, and promote renewable energy.¹²
 - *Federal Gas Tax Revenues*: The Federal Government has promised to distribute \$5 billion over five years to enable municipalities to invest in new sustainable infrastructure projects in areas like transit, roads, clean water and sewers.¹³
 - *Partners for Climate Protectors (PCP)*: A network of more than 121 Canadian municipal governments who have committed to reduced greenhouse gases and acting on climate change. PCP is a partnership between the FCM and ICLEI, and receives financial support from the Canadian Government through the Climate Change Action Fund (CCAF).¹⁴
 - *Canada Strategic Infrastructure Fund (CSIF)*: Through *Infrastructure Canada*, the Federal Government has set aside \$4 billion for regions and municipalities that seek to invest in infrastructure projects that promote effective urban development, and use innovative technologies and practices to minimize greenhouse gas emissions and other pollutants. Other federal programs of this nature include: the Infrastructure Canada Program (ICP) and the Municipal Rural Infrastructure Program (MRIP)¹⁵

The Budget 2005: Delivering a New Deal for Cities and Communities¹⁶

- *Federal Gas Tax Revenue*:

- Between 2005-2006, the federal gas tax dedicated to Cities and Communities will be \$600 million.
- By 2009-2010, the share will increase to \$2 billion, representing 5 cents per litre.
- *Infrastructure Programs:* Such programs as the CSIF and the MRIP will be renewed which invest more than 50 percent in funding towards sustainable infrastructure.

According to the 2005 Liberal Budget, the gas tax sharing, the goods and services tax (GST) rebate implemented in Budget 2004 and the Green Municipal Funds will provide Canadian communities with over \$9 billion over the next five years.

4. What are Sustainable Development Strategies (SDS)?

- A *Sustainable Development Strategy (SDS)* is defined as a coordinated, participatory, and iterative process of thoughts and actions to achieve economic, environmental and social objectives in a balanced and integrated manner at the national and local levels. It is a cyclical *process* that emphasizes managing and monitoring progress towards sustainability rather than producing a one-time document or plan as an end-product.¹⁷
- ICLEI has published a planning guide to developing a SDS which planning staff are in the process of obtaining, however a high level synopsis of the process is outlined below:¹⁸
 - The overall process is participatory involving all levels of governments, economic sectors, community groups and other key stakeholders;
 - The SDS should be founded on the sustainable development principles that are specifically suited to the community;
 - The Visioning Phase should take a grass-root perspective that involves not only traditional public consultation, but also public engagement (i.e. focus groups, questionnaires etc.).
 - The Visioning Phase should identify important issues related to the long-term health of the community (i.e. air quality, homelessness, job opportunities);
 - The Strategy and Action Plan should take a holistic approach to implementing the SDS goals, demonstrate an interrelation between the three elements of environment, society and economy, and achieve triple bottom-line sustainability (i.e. public transit, green infrastructure, and water and energy conservation programs).
- Within the Canadian Government, all departments and agencies have formulated their own SDSs based on their specific mandate and operations. These strategies stress a coordinated approach to information, support and expertise in attaining triple bottom-line sustainability in communities which are based on public consultation with other levels of governments, and other stakeholders.¹⁹

A Sustainable Development Strategy (SDS) answers the question of “how” (as opposed to “what”) is a government going to do to engage in sustainable development practices. There is no standard or blueprint for a SDS as it builds upon the prevailing political, historical, cultural, and ecological circumstances of the given community.²⁰

5. What are some Canadian and International examples of best practices in sustainable development?

City of Ottawa: The New Official Plan and 20/20

- The overarching objective of the *City of Ottawa Official Plan* is to create a sustainable community that successfully balances economic development with the protection of the environment and social values.²¹
- It is evident that the City of Ottawa has adopted the cyclical process of carrying out sustainable development consistent with that of the United Nations and ICLEI. The general approach to implementing the Official Plan is outlined below:²²
 1. Outline a clear long-term vision.
 2. Determine community values and needs.
 3. Develop strategies to achieve community goals in all sectors (i.e. economic, human services, arts and heritage, environmental etc...)
 4. Set clear targets.
 5. Monitor and reporting on progress.
 6. Review and reconfirm or revise strategies.
- *Ottawa 20/20* is a framework for managing growth over the next 20 years in a manner that will execute the primary goal of sustainability in the new Official Plan. The City established a set of principles to guide the implementation process of the 20/20 plan, some of which are listed below:²³
 - A Green and Environmentally Sensitive City;
 - A City of Distinct, Liveable Communities;
 - An Innovative City where Prosperity is Shared among all; and,
 - A Healthy and Active City.

The Greater Vancouver Regional District (GVRD): The Liveable Region Strategic Plan (LRSP) and the Sustainable Region Initiative (SRI)

- The GVRD formulated *The Liveable Region Strategic Plan (LRSP)* as the growth management plan for the region. Similar to the City of Ottawa 20/20 principles, and the sustainability goals of the Federal Government and the United Nations, the LRSP approach to guiding growth over the long-term rests of four fundamental strategies:²⁴
 - Protect the Green Zone;
 - Build Complete Communities;
 - Achieve a Compact Metropolitan Region; and,
 - Increase Transportation Choice.
- To complement the LRSP, the GVRD established the *Sustainable Region Initiative (SRI)* that provides a framework, vision, and action for the region based on the concept of triple bottom-line sustainability.²⁵
- The SRI's integrated and collaborative views are addressed in 11 target categories ranging from land, economy, energy, solid waste, transportation and government employees. A set of performance indicators have been and continue to be developed for each category to benchmark progress.²⁶
- In 2003, the GVRD established the *Sustainability Enterprise Fund (SEF)* to help area municipalities make investments in sustainability initiatives, and to share the risks and benefits with pursuing innovative approaches in their core business functions. The SEF will provide up to \$125,000 in total per year for such municipal projects as greenhouse gas reduction, storm- and ground-water management, and sewer odour control.²⁷

International Case Studies²⁸

Santa Monica, USA: Baysaver Plumbing Fixture Rebate Program

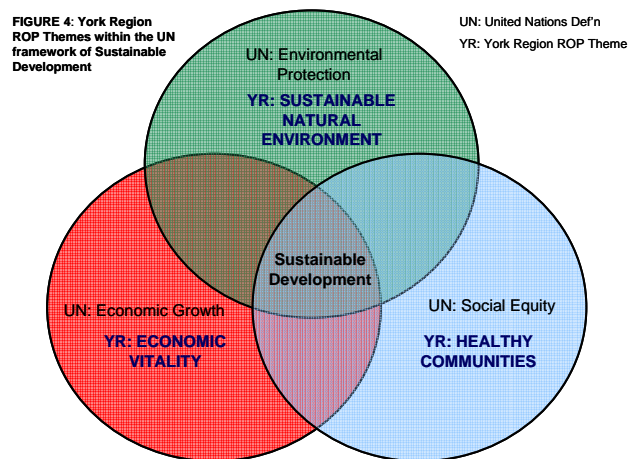
- Santa Monica has finite water resources as 50% of the City's drinking water comes from a ground water aquifer which is currently being extracted at the maximum sustainable rate. The other 50% is purchased from the Metropolitan Water District of Southern California.
- The goal of the program is to reduce water usage in Santa Monica by retrofitting 50% of residential buildings and 25% of commercial buildings with water saving devices. In this way, the program aims to reduce the demands for new water supplies and new waste water treatment facilities.
- To date, the Baysaver Program has approached pollution prevention by successfully reducing water usage by 15% and waste water flows by 20%. This has allowed the City of Santa Monica to defer the purchase of costly treatment infrastructure.
- The on-going program is financed with general water and waste water revenues, Water District credits for water conservation initiatives, water mitigation fees and plumbing fixture surcharges.

Curitiba, Brazil: Integration of Land-Use and Transportation Planning

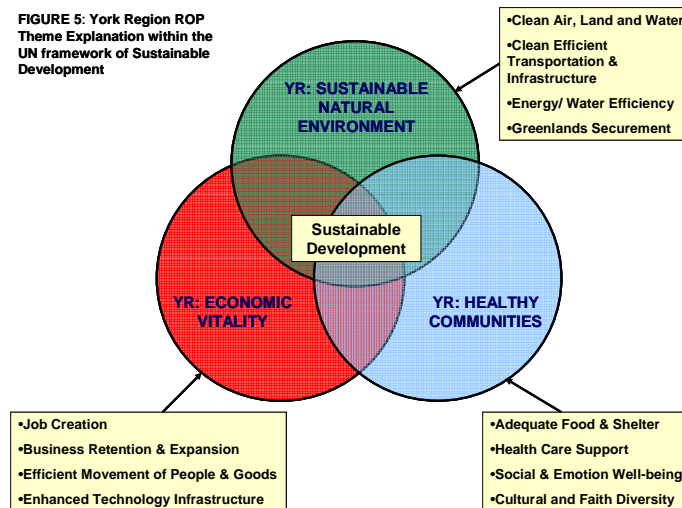
- The goal is to integrate land-use and transportation planning in order to create high-density population corridors that can support transportation modes and services that are accessible, affordable, economically sustaining and environmentally friendly.
- Public transit rights-of-way were created separate from the private road lanes to permit maximum operating efficiency and to accommodate public transit upgrades as ridership increases. For example, light rail vehicles will replace bus service on the same lanes.
- “Structural axes” were created to concentrate population and commercial activity along public transit rights-of-way. Each structural axis consists of two blocks of highest density zoning. The axes are used as express transit corridors which are served by the existing bus feeder lines.
- The land-use policy instruments used to create the high densities include residential intensification along main streets, incentive zoning, conversion of non-residential buildings for residential use, placement of public housing on main corridors, relaxing parking space requirements using the availability of public transit as a justification, and establishment of an urban boundary through zoning or park development to prevent sprawl.
- The Curitiba public transit system supports 70% of the average daily commuter trips on a city-wide basis at a profitable level of operation, combined with efficient land use and infrastructure. As a result, Curitiba partnered with private transport carriers enabling the transit system to operate without any direct subsidy from the city government.

6. Is York Region practicing sustainable development?

- The *Regional Official Plan (ROP)* and the Growth Management Strategy, *Vision 2026*, conform to the UN definition and conceptual framework of sustainable development and the Federal Government’s four pillars of sustainability. These plans are based on a holistic approach of integrating the three ROP themes of healthy communities, economic vitality and sustainable natural environment, shown in Figure 4.



- Although York Region does not use the terms, “sustainability” or “sustainable development”, the notion of the triple-bottom line sustainability is implicitly incorporated in its policy documentation, as shown in Figure 5.



- Many of York Region’s initiatives regarding the environment and transportation strive towards interconnecting the elements of environment, economy and society, and reducing our ecological footprint as encouraged in the Melbourne Principles. For example, York Region also initiated policies and programs similar to Ottawa, the GVRD, Santa Monica and Curitiba, such as water and energy conservation, and the integration of high-density centres and corridors with bus and rapid transit services.
- The following are some York Region sustainable development initiatives that have received federal funding:²⁹
 - *Wind Energy Pre-Feasibility Studies:* through Green Municipal Enabling Funds which would cover 50% of the cost to complete the studies, up to a maximum of \$350,000;
 - *Rapid Transit Service (VIVA:)* approximately \$50.2 million through Infrastructure Canada and Green Municipal Enabling Funds;
 - *Smart Commute Initiative:* approximately \$2.7 million through the Urban Transportation Program;
 - *Residential Rehabilitation Assistance Program:* through Canada Mortgage and Housing Corporation (CMHC); and,
 - *Community Rental Housing Program:* through CMHC.
- Other York Region sustainable development initiatives include:
 - Long Range Water and Sewer Strategies;

- 10 year prioritized Capital Works Plan;
- Public bus service (YRT);
- Oak Ridges Moraine Legislation;
- York Region's Greening Strategy;
- Human Services Strategy;
- York Region Energy and Environmental Management System;
- Implementation Energy Savings;
- Water for Tomorrow Programs;
- Watershed Planning;
- Strategic Plan for Groundwater;
- Waste Diversion Programs;
- Centres and Corridor Strategies;
- Corporate Clean Air Initiative; and,
- Ranking 5th in the FCM's study, "Ecological Footprint of Canadian Municipalities and Regions".

It is evident that York Region has intuitively integrated the approach and principles of sustainable development in its policy framework and operational initiatives. Nevertheless, the opportunity for improvement presents itself in the implementation of Master Plans, and major corporate decision-making in terms of the process of decision-making and measuring York Region's sustainable development performance.

7. Summary

- The concept of sustainable development is universal, but its definition and conceptual frameworks are subject to interpretation and vary across numerous disciplinary backgrounds.
- Sustainable development refers to a *holistic* approach to effective and on-going decision-making in government that focuses on positive outcomes, emphasizes economic development within the local societal and environmental limitation and capacity, and simultaneously creates value across these three elements. This decision-making process is one that is participatory, transparent, equitable and accountable, and is unique to each community.
- The Federal Government's concept of sustainable development is in accordance with that of the UN definition and ICLEI model; however the specific issues and objectives that constitute sustainability in Canada appear to be continuously evolving. Presently, the Federal Government seems to accord environmental protection a high priority to meet its Kyoto obligations by promoting "green" economic and infrastructure, and alternative transportation methods, such as public transit.
- According to the 2005 Liberal Budget, the gas tax sharing, the goods and services tax (GST) rebate implemented in Budget 2004, and the Green Municipal Funds will provide Canadian communities with over \$9 billion over the next five years.
- A Sustainable Development Strategy (SDS) answers the question of "how" (as opposed to "what") is a government going to do to engage in sustainable development practices. There is no

standard formula or blueprint for a SDS as it builds upon the prevailing political, historical, cultural, and ecological circumstances of a given community.

- The Official Plans and Growth Management Strategies of the City of Ottawa and the Greater Vancouver Regional Districts are Canadian examples of sustainable development practices integrated within government policy. Other case studies include Santa Monica, California and Curitiba, Brazil.
- York Region has intuitively integrated the approach and principles of sustainable development into its policy framework and operational initiatives. Nevertheless, the opportunity for improvement presents itself in the implementation of Master Plans, and major corporate decision-making in terms of the process of decision-making and measuring York Region's sustainable development performance.

8. Options for Moving Forward

- The elements of a Sustainable Development Strategy that are embedded throughout York Region policy and programs represent an excellent foundation from which to become a more sustainable region.
- There is an opportunity to successfully promote York Region as a creditable sustainable development best practice example in Canada from policy conceptualization to implementation.
- There is also an opportunity to identify and address the gaps within these policies and programs where a sustainable development approach is absent or lacking.
- Potential actions include:
 1. Prepare a report to Council regarding the concept of sustainable development, the current initiatives being undertaken by York Region, and the benefit of improving and promoting our sustainable efforts on local, provincial and national levels.
 2. Produce a stand-alone public document illustrating York Region's approach to sustainable development and a communication strategy.
 3. Investigate further a stronger partnership with ICLEI with respect to formulating and implementing a Sustainable Development Strategy for York Region.
 4. Recommend that York Region undertake an internal audit to ensure that sustainable development considerations are present in our decision-making process. This initiative may lead to the creation of a York Region sustainable development strategy for internal operations as a model to the public and to strengthen our credibility and commitment in this regard.
 5. Undertake a corporate wide awareness initiative on sustainable development to ensure that all levels of staff are informed about the components and principles. One suggestion is to begin with a joint presentation between staff and ICLEI to senior staff and/or Committee.

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- ¹ Telephone Interview with ICLEI, March 3, 2005.
- ² Division for Sustainable Development. 2001. "Guidance in Preparing a National Sustainable Development Strategy", Department of Economic and Social Affairs, United Nations (UNDESA). Pg 7.
- ³ Division for Sustainable Development. 2001. "Guidance in Preparing a National Sustainable Development Strategy", Department of Economic and Social Affairs, United Nations (UNDESA). Pg 7.
- ⁴ Telephone Interview with ICLEI, March 3, 2005.
- ⁵ Division of Technology, Industry and Economics. 2002. "Melbourne Principles for Sustainable Cities", UNEP.
- ⁶ Molnar, D & Morgan, A. 2001. "Defining Sustainability, Sustainable Development and Sustainable Communities", Sustainable Toronto, pg 3. Sustainable Toronto is a consortium between two academic units: the Environmental Studies Program of Innis College, University of Toronto; and the York Centre for Applied Sustainability, York University. This project is also link with the City of Toronto, the Canadian Institute for Environmental Law and Policy (CIELAP), and the Toronto Environmental Alliance (TEA).
- ⁷ NRTEE. "Urban Sustainability" online www.nrtee-trnee.ca. March 1, 2005.
- ⁸ Minister of Infrastructure and Community, John Godfrey. "Infrastructure Renewal in Canadian Cities: The Role of the Federal Government". Speech to the Conference on the Future of Canada's Infrastructure. September 30, 2004.
- ⁹ Minister of Infrastructure and Community, John Godfrey. "Infrastructure Renewal in Canadian Cities: The Role of the Federal Government". Speech to the Conference on the Future of Canada's Infrastructure. September 30, 2004.
- ¹⁰ Minister of Infrastructure and Community, John Godfrey. "Infrastructure Renewal in Canadian Cities: The Role of the Federal Government". Speech to the Conference on the Future of Canada's Infrastructure. September 30, 2004.
- ¹¹ Minister of Infrastructure and Community, John Godfrey. To the City of Ottawa Fall Conference: Choosing our Futures, Planning for Long-Term Community Sustainability". November 1, 2004.
- ¹² Federation of Canadian Municipalities, "Green Municipal Funds" online www.fcm.ca. March 2, 2004.
- ¹³ Speech from the Throne, October 2, 2004. Government of Canada.
- ¹⁴ Federation of Canadian Municipalities, "Partners for Climate Protection", online www.fcm.ca. March 2, 2004.
- ¹⁵ Infrastructure Canada. "Infrastructure Programs" online www.infrastructure.gc.ca. March 2, 2004. Over the last decade, the Federal Government has committed close to \$12 billion in new funds for infrastructure project across the country. These funds are expected to leverage \$30 billion in total investments by all partners. These funds are in addition to the \$5 billion federal gas tax revenue commitment.
- ¹⁶ Department of Finance. 2005. "The Budget in Brief 2005". Government of Canada, pg 14.
- ¹⁷ Division for Sustainable Development, 2001. "Preparing a National SDS". UNDESA . pg 8.
- ¹⁸ Telephone Interview with ICLEI, March 3, 2005.
- ¹⁹ Environment Canada. February 2001. "Sustainable Development Strategies: Evolution of the Federal Approach". Government of Canada, pg 3.
- ²⁰ Division for Sustainable Development, 2001. "Preparing a National SDS". UNDESA . pg 1.
- ²¹ City of Ottawa. 2001. "Sustainability: Smart Growth in Ottawa". Smart Growth Summit.
- ²² City of Ottawa. 2001. "Sustainability: Smart Growth in Ottawa". Smart Growth Summit.
- ²³ City of Ottawa. 2003. "A Window on Ottawa 20/20: Ottawa's Growth Management Strategy", pg 4.
- ²⁴ 1996. "Liveable Region Strategic Plan". GVRD.
- ²⁵ GVRD. "The Sustainable Region Initiative" online, www.gvrd.bc.ca. March 2, 2004.
- ²⁶ GRVD. 2003. "2003 Sustainability Report: Building a Sustainable Region."
- ²⁷ GRVD. 2003. "2003 Sustainability Report: Building a Sustainable Region."
- ²⁸ ICLEI, " Case Studies in Sustainable Development - #2 and #12" at www.iclei.org March 10,2005.
- ²⁹ Economic Development Department, York Region March 9, 2005.