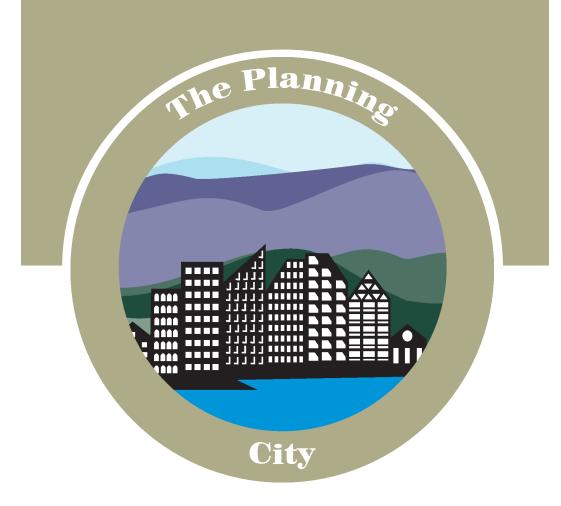# THE WORLD URBAN FORUM 2006

Vancouver Working Group
Discussion Paper

The Planning

City

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Canadian Institute of Planners

Turning Ideas into Action

In preparation for the 2006 United Nations World Urban Forum (WUF), the Vancouver Working Group (VWG) was created as a partnership of public and private agencies and civil society. It was mandated to initiate a series of research inquiries resulting in the *Vancouver Working Group Discussion Papers for the World Urban Forum.* These papers were prepared by members of the VWG with relevant experience and well-developed resources. It is hoped that these papers will contribute to the development of a thematic framework for WUF 2006 by articulating the concept and content of urban sustainability.

WUF will focus on urbanization as an all-encompassing global phenomenon and attempt to recommend effective actions to achieve a sustainable process of global urban transformation by balancing social, economic, environmental and political goals: *Turning Ideas into Action.*

The Vancouver Working Group Discussion Papers for the World Urban Forum are open-ended segments of a conceptual whole. Each of them will strive towards sustainability thereby transforming urban life into a productive, inclusive and environmentally balanced range of activities. These segments taken together will characterize sustainable human settlements. Sustainable urbanization can only be achieved through a mosaic of sustainable components that will add up to more than the sum of their parts.

All papers received comments from independent peer reviewers and this contribution is gratefully acknowledged.

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Editor

ACKNOWLEDGEMENTS

These papers continue the international dialogue on human settlements that began with the first UN Human Settlements Conference in Vancouver in 1976. They provide an initial analysis of diverse aspects of the current urban situation and create a basis for an informed discussion and development of ideas and relevant issues leading up to WUF 2006.

The purpose of the Forum is to engage people worldwide in discussions about urban issues and to stimulate significant change across generations in the field of sustainable urban development. The United Nations has challenged Canada to develop a more interactive and participatory Forum. Consultation, dialogue and conclusions formed prior to and during the World Urban Forum will also contribute to Canada's urban agenda and will help to create a long-term legacy of knowledge and action around sustainability issues in Canada and the World.

The papers contributed to Canadian efforts in Barcelona at the 2004 WUF. Ministers and Canadian officials held informal consultations with domestic and international stakeholders while in Spain. The WUF 2006 Secretariat will take into consideration all input received from interested stakeholders to ensure that Canada meets the challenge from UN Habitat in making the WUF 2006 more interactive and participatory.

FOREWORD

This paper is part of Turning Ideas into Action, a themed series created in preparation for the 2006 World Urban Forum. Together, this series forms a mosaic that sheds light on a common focus: the city. On a global scale, cities have become the dominant form of human settlement, socially, economically, environmentally and politically. The papers begin to examine how cities can continue to be dynamic and inclusive places in which to live and thrive. By illustrating explorations of the city with powerful stories of promising practices, the papers emphasize the assets from which cities draw their strength, and highlight dynamic participatory processes in action. Research for each paper draws on extensive experience in planning and managing cities. Selected lessons provide knowledge to achieve locally relevant solutions and supportive policies at the regional, national and global levels. They demonstrate the complexities of how cities evolve and transform, and challenge assumptions that are often taken for granted. Finally, the papers encourage the reader to view the world from different perspectives and discover successful and innovative solutions appropriate to their relevant conditions.

WUF 2006 will build on Canada's historic leadership in bringing the UN Conference on Human Settlements to Vancouver in 1976. It will also benefit from Canadian experience in improving human settlements at home and abroad. The 1976 UN meeting pioneered a participatory process of member nations and NGO's, and created a worldwide focus for human settlements issues through the establishment of the UN Centre for Human Settlements in Nairobi, now known as UN-HABITAT. WUF 2006 is part of an historic trajectory of UN Conferences and represents the 30th anniversary of HABITAT '76. These papers are intended to initiate an informed dialogue on the scope and scale of the evolving urban agenda through Turning Ideas into Action locally, regionally, nationally and across the world.

This paper is one of a series of discussion papers prepared in anticipation of the World Urban Forum 2006.

The papers in this series include:

The Capable City

The International Centre for Sustainable Cities

This paper examines non-traditional forms of governance with an emphasis on consensus that has emerged in a Canadian context and responds to three questions. Are there models of cooperation across jurisdictions that might provide lessons for city regions that do not require mergers? Are there models for management of global common goods – such as watersheds, that do not involve legislative powers? Are there models based on consensus and voluntary agreements across sectors that show promise for influencing decision making related to sustainability? Three Canadian cases are presented: the Greater Vancouver Regional District; the Fraser Basin Council; and the National Round Table on the Environment and Economy. The models are assessed using UN-HABITAT's criteria for good governance. The findings, along with pertinent literature and experience on governance and capacity building, yield observations and recommendations about their application to other cities.

The Ideal City

Department of Art History, Visual Art and Theory, University of British Columbia

This paper explores the history and force of ideal city planning and the related literary and visual genres of Utopian -- and Dystopian -- speculation. The Ideal City represents a highly significant aspect of human thought and endeavour, usually conceived in response to actual problems as well as intended to effect substantive improvement in the daily social lives of individual citizens. Linked to a thematic knowledge resource intended to establish an interactive website, this paper reviews the main constituents of the Ideal City tradition, examines its impact on the design of urban settlement, including across Canada and in Vancouver, and indicates how such conceptual approaches to the building of a better civic environment and society can contribute to the creation of more sustainable, habitable and civilized cities in the 21st century.

The Learning City

Simon Fraser University

The learning city is a city that approaches sustainable development as an ongoing educational process. This paper focuses particularly on the role of universities and colleges in the learning city, examining the different dimensions of sustainability education and best practices from British Columbia, across Canada and internationally. Lessons from this are applied to envisioning a new Centre for the Learning City in Vancouver's new Great Northern Way Campus.

The Livable City

The International Centre for Sustainable Cities

This paper is a case study of the Greater Vancouver Regional District (GVRD) in Canada, the host region for the World Urban Forum 2006. Drawing on the literature on livable cities and the region's efforts to bring this concept into practice, the paper poses two central questions: What key factors affect the livability of a city and how does livability relate to sustainability? Livability is defined as "quality of life" as experienced by the residents within a city or region, and the paper concentrates on a case study of

planning for Greater Vancouver including the Livable Region Strategic Plan, the Sustainable Region Initiative, and the cities^PLUS 100-year vision for the GVRD. The paper provides lessons for other cities and regions, and concludes that for Greater Vancouver, livability, sustainability and resiliency are three intertwined elements that together will define the quality of life of current and future residents.

The Planning City

The Canadian Institute of Planners

This paper looks at sustainability as a dynamic, continuous process of sharing and exchanging knowledge and experiences, and of learning through action. It contributes to this learning process by reviewing key trends and challenges that confront those responsible for planning cities in Canada and overseas. Examples of urban planning innovations and experimentations are drawn from a sample of cities and taken from the perspective of the urban planner who is usually a central actor in efforts to articulate, plan for and implement urban sustainability. The paper concludes with key findings, and offers direction about processes, structures and methods that could enhance the effort to achieve urban sustainability.

The Resilient City

Ministry of Community, Aboriginal and Women's Services, Government of British Columbia

This paper explores the resiliency of small Canadian communities dependent upon single resource industries by examining how they have coped with the economic and social pressures arising from the closure of their industries. It summarizes how they have managed their transition from communities existing to serve resource exploitation exclusively to communities based on a different, broader economy and suggests lessons from the Canadian experience that may be transferable to resource-based communities around the world.

The Secure City

Liu Institute for Global Issues, UBC

This paper focuses on three key issues: traditional pillars of urban security, threats and forces shaping cities in the 21st Century, and a research agenda to explore relationships between adaptive security, preventive security and human security. Action is called for to advance current concepts of capacity building, resilient design and adaptive planning. Integrated risk assessment that is responsive to community needs for prevention and precaution is recommended, and an enhanced role for individual responsibility and community participation to expand social capital is advocated. The Secure City sets a context for Canada's emerging national urban agenda and a policy framework for global strategies to improve human security in cities throughout the world.

The Youth Friendly City

The Environmental Youth Alliance

This paper explores what opportunities exist for the greater recognition of the rights and needs of children and youth in urban settings through a significantly enhanced role in urban governance and community building. By enabling children and youth to participate fully in their own development and environment, this paper demonstrates the potential among youth for building capacity, and for becoming insightful resources in developing strong and thriving local neighbourhoods and cities.

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Overview

The focus of the themed papers that have been prepared for the World Urban Forum 2006 is the city and sustainability. Sustainability is interpreted here as a dynamic, continuous process of sharing and exchanging knowledge and experiences, and of learning through action. In the context of the World Urban Forum 2006, we seek to create sustainable cities that are secure, capable, lively, healthy, creative, and centres of learning.

This exploration of the sustainable city represents the logical extension of the quest for the ideal city, a quest that has captivated planners for centuries. Our definition of the ideal city, the utopian ideal, has evolved with time. In the early 21st century, we seek to understand how our cities can become more livable and secure – places where we can achieve our potential as individuals and communities while controlling and minimizing our impact on the environment. We also want to understand how all members of society, specifically including our youth, can contribute to and benefit from the sustainable city. Further, we need to examine the decision-making processes, governance models and stakeholders roles that seem to advance sustainability in our cities. Finally, we seek to improve our understanding of the ways in which we learn, our sources of knowledge, and the application of knowledge towards sustainability.

It is understood that sustainable development is very much a work in progress and the subject of much controversy about its interpretation and application. Planners are "learning by doing". This paper contributes to this process of learning by reviewing key trends and challenges that confront those responsible for planning cities in Canada and overseas. The paper then introduces examples of urban planning innovations and experimentations drawn from a sample of cities. The perspective is that of the urban planner, usually a central actor in efforts to articulate, plan for and implement urban sustainability. The paper concludes with key findings, and offers directions about processes, structures and methods that could enhance the effort to achieve urban sustainability.

1.0 Executive Summary

Cities are complicated places with challenges that require efficient, effective and equitable solutions. As this survey of Canadian and international urban planning practice shows, this is easier said than done. Many of these challenges are caused by population growth, economic development, and the externalities generated by urban sprawl. Planners face many impediments that make the ideal of sustainability difficult to realize. These challenges include lack of resources, political change and instability, lack of information and research, and the tendency to address urban problems in isolation when a comprehensive, integrated approach is required. However, there are many good news stories about urban planning practice, and many of these are told in this report.

The concept of sustainability and sustainable development is well understood. Planners in Canada and overseas understand the principles and objectives of sustainable development. They are aware of the three themes or "pillars" of sustainability – economy, society, and environment – and the need to balance and integrate these related themes when making urban planning decisions. It is also important to recognize the important role of governance as an element that connects, and is represented in, the three pillars.

Sustainability challenges are interconnected; so are the solutions. In almost every case, an intervention in one area of sustainability has multiple and positive impacts in the others.

We can identify many examples of innovative and integrated urban planning policy and practice in Canadian and international settings, such as life cycle assessment, intensification, development charges, affordable housing, public transit, homelessness, public safety, watershed planning, natural heritage planning and brownfield re-development to mention a few.

These innovations generally strive for:

Integration

- *Integrated planning.* Sustainability issues cannot be dealt with in isolation. They require multi-pronged approaches based on an *understanding* of the complex and dynamic inter-relationships between social, economic and ecological systems.

Collaboration

- *Partnerships and alliances.* Both the search for sustainability and the need to adapt to public sector reform have led to many multi-stakeholder initiatives. A common strategy is to facilitate the participation of non-governmental and private sector organizations, often in partnership with public sector organizations.

- *Participation.* Underlying many innovations have been continued efforts to encourage and facilitate the participation of various groups in society, in all stages of the planning process, through a variety of techniques.

- *Consultation and outreach.* Numerous initiatives have made use of consultative processes that target specific groups or in other ways make greater efforts to reach out to marginalized or vulnerable communities.

Empowerment Through Knowledge

- *Use of new technology.* New technologies, particularly the Internet, have been used as a tool for outreach, education, receiving community feedback, monitoring and evaluation, and researching urban trends. Technology has also been an important component of tracking and managing data through database software, GIS, and automated permitting systems.

- *Research.* Research continues to be an important component of planning for urban sustainability. Many innovative research techniques find ways of better understanding the unique needs and qualities of communities, ecosystems and economies in transition.

2.0 Introduction

This paper reviews some of the key challenges faced by urban planners in Canada and internationally when striving to create sustainable cities. The paper is intended to illustrate some of the issues facing urban planners throughout the world, and methodologies and tools used to address them. While the particular contexts in which these issues play out varies from country to country and city to city, the underlying trends are often quite similar and so are the urban planning responses.

The paper presents a series of examples of planning responses in support of urban sustainability. These responses are not comprehensive, but provide an illustration of the types of actions being taken, and allows for some comparisons across international jurisdictions. While the planning responses are constrained and defined by institutional differences and the extent of available resources, the case studies and examples presented in this paper illustrate the common world view of planners – the need for integration, collaboration and empowerment in order to achieve urban sustainability in the face of tremendous and far-reaching challenges and opportunities.

This paper provides an overview of significant urban issues and the innovative manner in which Canada's urban planners have contributed to urban sustainability. Canada's many contributions to urban planning overseas are also described. Taken together, this paper communicates a number of the accomplishments achieved by Canada's planners with the objective of sharing lessons learned in Canada's urban communities with others around the world.

The discussion is framed in terms of the sustainable development model, which comprises *economic, social, and environmental pillars*. Connecting and reinforcing the pillars is *governance*, which we interpret as principles of governing, processes, actions and relationships that facilitate sustainability. These themes are most appropriate because they capture the diversity of modern Canadian planning practice.

About the Canadian Institute of Planners

It is worth noting here the context within which the planning is practiced in Canada. The Canadian Institute of Planners (CIP) sets and administers the benchmarks for excellence in planning across Canada. The Institute has existed since 1919 and has some 6,000 across Canada and abroad. The Institute works closely with Affiliate offices representing planners in each of Canada's provinces and territories. Working with these Affiliates, the Institute sets national standards for training, certification, best practices, and accredits and recognizes university planning degree programs. In addition, CIP's *Code of Practice* sets out important principles to which CIP, its Affiliates, and its members subscribe.

The relationship between CIP and its Affiliates in many ways mirrors the relationships between Canada federal, provincial, and municipal levels of government. In so doing, it facilitates setting and implementing standardized national membership criteria that enables portability of membership across Canada and with the U.S. and the U.K. This network also provides a strong foundation for the sharing of best practices, continuous learning opportunities, and other benefits. In addition, CIP's growing outreach activities – particularly its capacity-building activities with other planning organizations and governments abroad – are helping to share the

Canadian model and experience with others while, at the same time, also drawing lessons from their expertise.

2.1 Sustainable Development

The concept of sustainability was popularized in 1987 with the publication of "Our Common Future" by the World Commission on Environment and Development (the Brundtland Commission). This document articulated essential principles which would lead to a better balance between environment and development. The focus of sustainable development is on the long-term consequences of current actions on three key elements: the natural environment, the social environment, and the economy.

Sustainable development seeks to minimize the negative effects of development while maximizing quality of life and environmental integrity. Decisions made and actions taken in any of these three elements of the sustainable development triangle affect the others. This philosophy of development is captured by the phrase "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations Commission for Sustainable Development, 1987).

Sustainability also implies a partnership between the public sector, the private sector, and NGOs and civil society generally. As Tyler (2000, 489) notes, "a sustainable approach … is intended to simultaneously incorporate social, environmental and economic values into development decision-making."

We can also define urban sustainability as the enhanced well-being of cities or urban regions, including integrated economic, ecological, and social components, which will maintain the quality of life for future generations (NRTEE 2003a). Tyler (2000, 489) interprets sustainability as "… concerned with the connections needed between environmental, social and economic interests and with the implied balance of these three interests." There are recent efforts by many Canadian cities and by the planning profession to adopt more sustainable approaches to urban development. *Sustainable urbanization* is characterized by forms of development that are higher density, make optimal use of existing services and facilities, minimize pollution, and enhance the integrity of the ecosystem. These objectives are captured and promoted by planning concepts such as New Urbanism and Smart Growth which many would consider as variants and refinements of sustainable development.

2.2 Challenges to Urban Sustainability – Canada

Canada's cities are often criticized as having sprawling, low-density development; over-use of non-renewable natural resources; social inequities, including poverty and economic hardship; and pollution of air, water and soil. The effects are experienced in cities themselves, as well as in adjacent regions and often globally.

Most of Canada's population lives in a network of small, medium and large cities and city-regions. Depending on their size and position in the hierarchy of cities, their influence can be relatively limited or it can extend beyond the host region to the national and international level.

The concentration of population and economic activity in cities presents ideal conditions for environmental degradation and a diminished quality of life.

Indeed, many cities in Canada exert a significant impact on the natural environment. Cities and city-regions are not self-sustaining, autonomous or self-reliant entities. Their economies, transportation systems and residents depend upon a cheap and reliable supply of energy sources, food, and raw materials imported from their hinterlands and beyond.

Thus, the *environmental impacts* of cities extend beyond their political boundaries, which are political constructs. Cities are major consumers of natural resources, and polluters of air, water and soil. These impacts are not limited to the city proper; they are also experienced in adjacent rural regions and natural environments. These impacts, called the ecological footprint, can be far-reaching. This, in turn, can upset the ecological balance in rural and natural areas, thereby causing more damage to the natural environment. Indeed, the environmental damage created by cities can have global consequences – for example, in air and water quality.

Urbanization has a tremendous impact on lands in and adjacent to cities. Urbanization usually requires the conversion of rural or natural lands to urban uses such as housing, offices, transportation and industry. Urban land uses – particularly low-density developments – spill over or sprawl into adjacent rural and natural areas. While larger cities clearly exert a greater impact on the environment than smaller cities, cities of all sizes can have a negative environmental effect.

Economic growth is a driving force behind urbanization. Too often, economic growth takes place at the expense of the natural environment and social equity. The short-term benefits of economic activity seem more important than long-term impacts on the natural and built environments. The benefits of economic growth are rarely equally distributed among the residents in these cities. The externalities (or costs) of economic activity are rarely fully captured. Unhealthy economic and social dependencies are created in adjacent rural municipalities that supply cities with resources, goods and services.

It is expensive to provide the services, amenities and infrastructure required because of economic and population growth. Quite often, this growth occurs quickly and requires a prompt response from governments. Consequently, demand for services often exceeds supply of resources. The proper maintenance and replacement of existing services and infrastructure is a major challenge for Canada's cities, often more significant and worrisome than the construction of new infrastructure.

This compounds the challenges faced by all residents of cities, in particular disenfranchised people. *Social issues* are multifaceted and complex in Canada's cities. There are often extreme (and widening) gaps between rich and poor, especially in large cities. Many Canadian cities have a sizable underclass of people who are poor, sick, unemployed or exploited. They often live in substandard housing in unhealthy, unsafe and under-serviced areas.

Finally, we turn to the very real issue of *governance*. Canadian cities may also lack the *institutional capacity* required to govern effectively – the trained professionals, political structures, departments or technical skills required to plan and manage urbanization processes.

Sustainability challenges transcend jurisdictional boundaries. However, municipal efforts are adversely affected by a lack of regional planning and region-based government. Urban planning in Canada is primarily a municipal government responsibility carried out under powers delegated by the provincial government. In the Canadian constitutional system, municipalities are "creatures of the provinces" – they exist by provincial fiat. Provincial governments establish legislation, such as the Planning Act or Municipal Act, which regulates and guides municipal planning decisions. Each province and territory has its own planning legislation. However, municipal governments generally set the policy context for local land use planning and development to occur, ensuring conformity with provincial policies and legislation.

Fiscal constraints are very real obstacles. Municipal governments in Canada have limited own-source revenues and decreased fiscal transfers from senior government. Canadian cities struggle to cope and survive in the face of rapid growth, or even more worrisome, decline. This situation is particularly acute when resources are severely constrained because of downloading of service delivery responsibilities from senior governments.

Canada's cities, then, are complex places. They are difficult to plan and to manage. They are often places of social, economic and environmental extremes. They may be fascinating, but they are not always sustainable places. However, it is not growth per se, but the manner in which growth is managed that creates problems. For many observers of urbanization, the future viability and prosperity of Canadian cities depends on sustainable development and sustainable forms of urbanization.

2.3 Challenges to Urban Sustainability – International

Canadian urban planners strive to achieve a balance among the three pillars of sustainability – economic, environmental and social – when creating and implementing urban plans. This section identifies issues commonly faced when planning in international settings. The economic, environmental and social issues and the examples of urban planning responses to these draw on experiences in 10 decidedly different countries located in five continents: U.S.A., U.K., New Zealand, Australia, Trinidad & Tobago, Cuba, Bangladesh, Uganda, South Africa and China.

The economic, environmental, and social issues presented in this section are not meant to be exhaustive, but rather illustrative of the key issues facing cities and urban regions, enabling comparison across international jurisdictions. These issues are driven by global trends that cut across geographic, cultural and class boundaries. These are relevant to rich and poor countries alike, and shape the role of planners in these countries. Each of these trends poses both tremendous challenges and represents possible opportunities for positive transformation. The following are five examples of these underlying trends:

Transformation of Human Settlements through Urbanization: By the end of this decade, more than half of the world's population will live in cities. Urban growth is most dramatic in developing countries. While developed countries will continue to see continued concentration of their population in urban areas, the overwhelming majority of population growth in developing countries will become absorbed by rapidly growing urban areas.

Economic, Political and Cultural Globalization: The world's nation states continue to grow increasingly interdependent at the level of their economies, financial systems, businesses, cultures and communication. This holds true for cities and urban regions – which are increasingly connected to global economic and cultural networks, rather than to their geographic neighbours.

New Information, Communication and Environmental Technologies: Technological innovation is driving change in a wide range of fields. Computer software, information and communication technologies, alternative energy, and the bio-medical sector are all having far reaching impacts on the structure of local economies, levels of productivity and development, and the role and function of political democracy.

Increased Citizen and Consumer Awareness & Empowerment: The international diffusion of information technologies is changing the balance of power among governments, corporations, and non-governmental organizations. These technologies are helping us to obtain, share, and act on information quickly; build international networks; monitor changes; and hold governments and corporations accountable for their actions. Global grassroots movements are increasingly able to serve as a counter-force to economic globalization, while ethically-conscious consumers are influencing a shift towards triple-bottom-line accounting and corporate social responsibility.

Decentralization of Central Government Responsibility and Resources: Driven as much by fiscal austerity, as a desire for more accountable and effective service delivery, central governments in developing and developed countries are decentralizing service requirements to local authorities, civil society organizations and the private sector.

2.4 Summary

It is interesting to note that Canadian and many international cities share common concerns and face similar challenges. Cities in both settings must contend with the local impacts of national and global economic change. Urbanization, represented by urban sprawl and its attendant problems, dominates the urban agenda in Canada and many nations. While urban sprawl appears manageable in the Canadian context, this is not always the case in many other nations where exponential rates of population growth have created uncontrollable forms of urbanization.

Institutional capacity is a concern in both contexts, although of a different order of magnitude. While Canadian cities benefit from institutional capacity and stability, yet lack sufficient resources, many international cities operate in turbulent decision-making environments where the lack of resources compounds an already complicated situation. This is especially apparent in areas such as public health and capacity-building.

The next three sections of this paper explore how Canadian and international cities are attempting to create sustainable urban environments. In planning theory and practice, economy, society and environment are inextricably linked. For the sake of simplicity and efficiency in organization of the paper, these three pillars of sustainable development are treated individually. Governance – a cross-cutting element – is discussed in the context of our review of the three sustainability pillars.

3.0 Economic Sustainability

There are several facets to economic sustainability. On one level, economic sustainability focuses on development, not simply growth. This implies economic activity that is conducive to, and supports, sustainable urban development. Economic sustainability is a means to a much broader end – the sustainable community. It also requires the use of appropriate technologies. Economic sustainability encourages the use of renewable resources as inputs to production. It actively discourages the generation of externalities arising from economic activity, such as air, water and soil pollution.

Economic sustainability strives to reduce inequity among groups in society by providing opportunities for meaningful employment to marginalized citizens such as the urban poor. The financial impacts of decisions are also addressed under economic sustainability. For sustainable development to occur, development must be financially sustainable and carried out within the community's means.

An economically sustainable city would have economic activity that contributes to the quality of life without compromising the natural environment. In the context of cities, economic sustainability could be achieved by employment opportunities that offer meaningful work at reasonable rates of pay. Further, employment should be readily accessible. As Smith (2000, 324) notes, "…the spatial mismatch between employment opportunities and the homes of the poor seems destined to remain an intractable problem."

Employment opportunities could also build upon indigenous skills and knowledge, rather than reliance on imported expertise and resources. Sufficient services and supports should be in place to provide economic security in the event of disability or disease. People need economic security when unemployed, ill, disabled or otherwise unable to secure a livelihood.

There is a need to make more and better use of appropriate technology, materials and designs. Technologies could contribute to production processes that minimize negative impacts on the natural environment. New, environment-friendly products exist in many industries to replace products that pollute and/or consume excessive energy or natural resources to produce.

Technologies could make optimum use of renewable resources, preferably with origins in the home region, and local, indigenous expertise. The technologies should also be inexpensive to build and maintain. Finally, technology should be relatively simple to design, build and operate.

3.1 The Canadian Experience

3.1.1 The General Context

Planning in Canada's urban communities is affected by economic change, and by access to fiscal tools. Canada's urban communities have experienced the local impacts of national and global economic change. It is understood that economies undergo cycles of growth or decline within an established economic structure. In addition, and to complicate these economic cycles, many Canadian urban communities have needed to adjust to structural economic change. Many of

these communities are moving toward more sustainable forms of community-based economic development.

Here, we define structural economic change as a significant and long-term shift in the comparative influence exerted by a sector (or sectors) in an economy. A typical structural shift would be the increasing importance of the service-based or knowledge-based economy, often at the expense of a traditional natural resource or manufacturing-based economy. This structural economic shift may be caused by the introduction of productivity-enhancing technologies, by the effects of globalization, by protectionism or free trade agreements, or by competition for local economic development among Canada's cities. Cities that adapt readily to structural economic change are those that provide the right balance of infrastructure, quality of life, human resources, locational advantage (e.g., proximity to expanding markets or communications or transportation infrastructure), and innovation in production processes.

The positive effects of economic change are reflected in rapid rates of population and economic growth. This pattern occurs in many, but not all, of the largest Canadian urban regions which have the critical mass of economic power and expertise to be competitive in a global marketplace. It is apparent that "the strong become stronger" in Canada's national urban economic landscape as cities such as the Calgary-Edmonton corridor, Vancouver and the Lower Mainland, the Greater Toronto Area, and the Montreal region continue to grow in population and drive the national economy.

However, the local impacts of economic change have been unevenly experienced among Canada's cities. Cities that are unable to adapt must contend with myriad economic challenges that negatively affect economic viability and quality of life. The key is to identify and adapt to macro-level economic trends that have community impacts. The negative effects of structural economic change have been felt most in Canada's older urban communities. Canada's industrial cities have experienced the social and environmental costs of economic change – i.e., increasing rates of unemployment or under-employment, reduced property values, reduced development activity, the under-use of municipal investments in infrastructure, the high costs of repairing or replacing obsolescent infrastructure, and complicated and expensive remediation of brownfield sites. These are places where planners assist with the difficult transition to a no- or slow-growth economy. Indeed, planning for community decline may be necessary in the non-metropolitan urban regions where the economic structure has not adapted to structural change.

3.1.2 Canadian Urban Economic Trends

Contending with Urban Sprawl

In cities experiencing rapid rates of economic and population growth, the planners' task is to manage and direct urban development. They strive to avoid or minimize the externalities generated by the dispersed urban form created by urban sprawl, and concentrate, instead, on efforts to intensify urban development through redevelopment of urban lands, and complementary investments in public transit, core area revitalization, and urban amenities. The key is to guide and manage urban growth in a sustainable manner, not to stop it. As Smith

(2000, 323) notes, "the planning problem … is how to make suburban development self-supporting … without pricing it out of the market except for all but the most affluent."

Too often, the path of least resistance has been greenfield development or urban sprawl because this form of development seems relatively inexpensive, uncomplicated, and generates revenues fairly quickly. However, urban sprawl represents unsustainable development because it consumes rural or agricultural lands, destroys natural areas, upsets fragile ecosystems, and requires the extension or expansion of expensive infrastructure (e.g. sewers and road networks). While sprawl-type new development generates new revenues in the short-term through development charges, long-term lifecycle costs can represent new and expensive fiscal liabilities that exceed property tax revenue.

In many Canadian urban areas, new homeowners are being encouraged to move to the outskirts of urban centres where they can obtain larger lots, more privacy and less expensive land. This trend takes place in areas where provinces are least able to accommodate development because of planning, zoning and communal water and sewer services. As a result, the urban core is being destabilized through the erosion of the municipality's tax bases, increased costs to deliver basic services, such as snow removal and street maintenance, and other safety and protective services that will be needed by residents living in urban fringe areas.

The often perverse impacts of positive economic performance can also be reflected in urban land economics. There is an increased desire for urban living in downtown cores in many Canadian cities. Affordability of housing is a major concern in many Canadian cities. Social housing issues challenge planners because of the demand for and limited availability of commercial land use. Commercial property is increasingly becoming more expensive to rent and properties that were once moderately priced to accommodate people with limited or low-income are being sold off and /or converted to high quality, high priced housing. As a result, many people are being forced to relocate to older, less expensive parts of the city as they search for affordable housing (Wake Carroll 2002).

Planned investments in expanding city infrastructure and services are often among the first expenses to be reduced during an economic recession. Public services in many urban centres can be reduced or cancelled because of severely constrained financial resources. It can also be difficult to secure alternative, non-public sources of funding for major urban infrastructure because projects such as highways, water and sewage treatment systems are long-term investments with a commensurate long-term amortization (Andrew and Morrison 2002).

Limited Own-Source Revenues

Urban planning in Canada is directly and indirectly affected by the fiscal tools that are available to municipal government. Generally speaking, municipal own-source revenue sources are limited. This is a concern because increasing demands for municipal services often exceed the fiscal resources available to municipalities. In most Canadian provinces, municipal governments must rely heavily on property taxation (residential or non-residential), development charges, and user fees (Kitchen and Slack 2003).

These revenue sources are often considered regressive – they penalize those least able to pay. Inter-governmental financial transfers are usually conditional in nature, tied to specific senior government policy initiatives, and their availability is subject to changes in government policy. As the value of these transfers has decreased over time, municipalities must rely to a greater extent on own-source revenues, in particular monies generated through urban development.

3.1.3 Urban Planning Responses

Canadian planners can access a new generation of municipal fiscal tools that reinforce more sustainable forms of economic development and planning. These tools are designed to make optimal use or re-use of existing infrastructure, amenities and services.

Responses to Urban Sprawl

Intensification

The redirection of urban growth through re-urbanization and intensification of development is a trend that is growing in importance. We see the revitalization of inner city areas through new housing and mixed-use developments. The objective is to make more efficient and continued use of investments in social and physical urban infrastructure such as schools, transit systems and sewers.

Marketing City-Owned Properties, North Vancouver, B.C.

The Lower Lonsdale area is one of the designated nodes for higher-density, mixed-use development in the City of North Vancouver. The area, especially near the waterfront, is characterized by vacant or under-used lands, creating a discontinuous space that is poorly protected at night and lacks vitality during the day. Historically, the waterfront area was largely industrial (mills, ship building, etc.) and the resulting nuisances (noise, smells, etc.) discouraged residential and commercial development in the vicinity.

In recent years, the general area has become more attractive to home seekers due to the proximity of the City of Vancouver, where housing costs skyrocketed in the 1990s. As property values began to rise in Lower Lonsdale, so did the city's interest in selling its vacant lands for redevelopment. The marketing of city-owned vacant sites in the Lower Lonsdale area was begun in 1998 and will continue until the process is completed around 2007. The goal of the initiative is to help revitalize Lower Lonsdale by selling vacant city-owned sites for redevelopment. The city has not set specific targets for the number of residential units to be built on the sites, but would like to see a large share of the redevelopment in the form of residential and mixed-use development (CMHC 2003).

Land Use and Zoning

Planners working in municipal land use planning consider the implications of economic change in land use decisions, zoning bylaw regulations and subdivision design. We see revitalization efforts supported by relaxed zoning bylaws (Toronto – The Kings) and greater use of direct or

development control (Alberta) that responds to unique, site-specific circumstances. Advancement in telecommunications technology has led to the telework phenomenon that allows business to occur in non-traditional locations, such as private residences. This has required changes in zoning to accommodate more home-based employment.

The "Kings Regeneration" initiative (Toronto)

King-Spadina and King-Parliament, commonly referred to as the "Kings" because of the prominent role served by King Street in both areas, are adjacent to Toronto's financial core. The prevailing zoning regulations cast the Kings as traditional, heavy-industrial areas, prohibiting most other types of modern development activity. As the area declined, the city attempted to stimulate reinvestment for employment uses. Nonetheless, vacancy rates increased and property owners began to demolish buildings with heritage value in order to reduce realty taxes. By the mid-1990s, it was recognized that these districts could not compete as locations for manufacturing and interest was growing in loosening land use restrictions.

The new planning policies and zoning represents a dramatic departure from the way planning had traditionally occurred in the former City of Toronto. The traditional approach relied on restrictions such as specific limits on the type of use to which the land could be put, density and even on the proportion of different uses mixed together on one site. This approach could not keep pace with changing market conditions in areas that are undergoing important transitions from one use to another. The focus of the new approach is on built form, not density or land use. The purpose is to create a high quality, predictable built environment while leaving the issue of land use flexible. The new policy emphasizes how a new building fits into the established pattern and scale of existing buildings in the area.

Much greater emphasis is placed on height, mass, privacy, access to sunlight and wind conditions at grade. These considerations establish the building envelope in which new development can occur (CMHC 2003).

Sustainable Community Economic Development

Finally, we see the emergence of alternatives to traditional forms of local economic development. Community economic development (or sustainable community economic development) can be defined as a process through which the development of the community is pursued by the community itself. Here, economic development is seen as a means to advance social and environmental objectives; this is a goal many Canadians would support.

The aim of sustainable community economic development is to promote economic development that provides opportunities for people of different incomes and skills, promotes a better quality of life, and protects the environment" (Roseland 1994, 160). A long-term, holistic perspective drives economic decision-making with decisions made through meaningful consultations with community stakeholders (Douglas 1994, 26).

Examples of sustainable community economic development include the planning and development of affordable housing; the creation of downtown development authorities to fund

core area revitalization; and the creation of eco-industrial parks, where industries are linked by integrating byproducts as inputs (Roseland 1994).

Responses to Limited Own-Source Revenues

New Revenue Generation Options

Canadian municipalities now have access to tools such as tax increment financing (TIF), which permits the postponement of taxes until a project is well-established. Other revenue sources are also under consideration. Kitchen and Slack (2003) examine the potential for municipal revenue generated by rebates of fuel taxes to support public transit, sharing retail and hotel taxes, and increasing transfer payments from the federal and provincial governments.

Development Charges

Municipalities can waive development charges to facilitate specific forms of development, such as core area revitalization. While substantial revenues are foregone with this method, municipalities assume that long-term fiscal returns in the form of property taxes and indirect economic spin-offs will generate a high return on this investment.

Exemption from Planning and Development Fees, City of Ottawa

In the three decades prior to the 1990s, the migration of households to Ottawa's suburbs resulted in an erosion of the city's downtown residential communities. Many older residential properties were converted into office space or allowed to deteriorate and were replaced by surface parking lots. High land values effectively eliminated housing investment except for upscale condominium development, which largely attracted singles.

In the early 1990s a school closed and city leaders began to fear that other downtown schools and facilities that cater to families would follow suit. In response, the city launched the Residential Downtown Intensification (Re-Do-It) initiative in 1994, designed to help reverse the erosion of the residential community and revitalize the city's downtown. The program included a waiver on development charges and a reduction in building permit fees for residential development in targeted areas. In 1999, a Downtown Revitalization Summit was held with developers and other stakeholders, which led to the conclusion that a wider range of financial incentives, among other initiatives, was needed in order to achieve the city's housing objectives for the downtown. Key ideas from the summit were formulated into the Downtown Revitalization Action Plan, which was approved by in May 2000. Residential development in the downtown area is exempt from development charges, building permit fees, planning application fees and the requirement to pay for parkland (CMHC 2003).

Downtown Housing Initiatives Program, Saskatoon

In 1998, the City of Saskatoon's Planning and Building Department undertook a comprehensive study of housing in the city's Central Business District (CBD) and immediate vicinity. The Downtown Housing Study examined present and future market demand, site and infrastructure

issues and opportunities and constraints to developing housing in the CBD. It developed a downtown housing development strategy, including the role of and need for incentives.

City council approved the study in December 1998, and implemented a five-year "Downtown Housing Development Action Program", which introduced a set of tax-based incentives to stimulate residential development in the downtown. In August 2002, the city council approved enhancements to the incentives program and added limited support for renovation of existing housing. The goal was to actively increase the population of the downtown area. High land values in the downtown discouraged development compared to cheaper sites just outside the downtown and in the suburban areas. The result was that underused or vacant lots with development potential were being ignored by developers. More generally, city council was also concerned by the dearth of new rental units being produced in the city for some years (CMHC 2003).

Targeted Investments

Canadian planners can also access policy and statutes that encourage community improvement and targeted project investments in the core area and inner suburbs. In the 1960s and 1970s, Canadian planners used funding from tri-partite programs that supported large-scale urban renewal, neighborhood improvement and downtown revitalization projects. More recently, municipalities in some provinces can designate urban areas for intensive public sector funding. Core areas, which are often in a precarious state, are reinvigorated through strategic investments by public-private partnerships (P3s).

CentreCore Development Corporation, Winnipeg

Winnipeg's downtown has been marked by physical decay, declining property values, and declining residential population for many years. There have been few additions to the downtown housing stock since the late 1980s. However, the downtown area also boasts many opportunities as a living environment and housing in the downtown is reasonably priced compared to other central areas in Canada. Opportunities for the renovation of heritage buildings give the downtown a unique appeal.

In May 1999, the city created a new private-public planning and development corporation called the CentreVenture Development Corporation. The corporation reports annually to the Executive Policy Committee of city council. CentreVenture provides public assets to a privately managed, arms-length body with authority to transact deals, provide incentives, do land assembly and lobby for changes in municipal policies. It focuses on revitalizing the downtown area of Winnipeg, including the stimulation of housing construction, through loans, loan guarantees and tax credits, as well as non-financial means (CMHC 2003).

Brownfield Remediation

Brownfield sites have received considerable attention and financial support from the provincial and federal levels of government. Brownfield sites are expensive to prepare for redevelopment because in-ground chemicals must often be remediated. The federal and often provincial

governments have loan and grant programs that can be used by Canadian cities to prepare these properties for sale and redevelopment. Successful redevelopment of brownfield properties generates sustained property taxes and generally enhances re-urbanization (NRTEE, 2003). These recent initiatives show considerable promise.

Contaminated Sites Grant, Cambridge, ON

The City of Cambridge (part of the Regional Municipality of Waterloo) is a small but growing city about 100 km west of Toronto. It has three core areas (Galt, Preston and Hespeler), which correspond to the downtowns of the former city and towns that were amalgamated into the city of Cambridge in 1973. Industrial activity played a prominent role in the history of the three core areas and a number of potential residential sites have been vacant for many years. The costs associated with the removal of waste or contaminated materials, typically generated by past industrial uses, are enough to effectively make development unprofitable. This issue was seen as standing in the way of a long-standing city objective, namely stimulating residential development in the core areas of the city as a key to economic revitalization.

Under the Contaminated Sites Grant Program, the city offers a grant to property owners for new development on a rehabilitated contaminated site in a core area. The original version of the program, adopted in 1999, targeted residential development and the grants covered 50% of restoration costs up to a maximum of $1,500 per residential unit. The grant can be used to cover any cost associated with the remediation or clean-up of a qualifying site, including labour, materials, and soil disposal or destruction of contaminants (CMHC 2003).

Urban Contaminated Sites Rehabilitation Program – Revi-Sols, Montreal

Montréal and Québec City – like other older Canadian cities – have numerous vacant or underutilized industrial sites left over from their long histories of industrial activity. Many of these sites, from decommissioned refineries and abandoned gas stations to old railway yards and factories, are contaminated with toxic substances related to their industrial past. Despite the fact that many of these sites are located in areas with high redevelopment potential, their re-use is being hindered due to the costs and risks involved in cleaning them up.

In the 1990s, it became clear that this lost development potential was clogging the heart of the province's major cities. Land that could serve to alleviate a growing housing shortage and stem the flight of families to suburban locations was lying fallow. In 1998, the Quebec government decided to act in order to help unblock the development potential of these sites and help address urban sprawl. The Urban Contaminated Sites Rehabilitation Program (Revi-sols) was designed to spur revitalization of urban areas through the rehabilitation of contaminated sites with strong potential for re development. The provincially-funded program contributes 50% of the eligible clean-up costs. Program activities in Montréal are administered by the City of Montréal (CMHC 2003).

3.2 The International Experience

3.2.1 The International Context

The single most important characteristic of urban regions in both the North and the South is their role as primary engines of their national economies. Cities serve as the gateways for finance, investment, and trade, while also serving as powerful magnets for skilled labour and an educated workforce. While this has been apparent for several decades in highly urbanized OECD (Organization for Economic Co-operation and Development) countries, the catalytic role of urban economies in developing countries is also now widely recognized as being crucial to their overall economic development.

The urban economies of OECD and developing countries are interconnected due to economic globalization and the resulting generation of tremendous wealth. At the same time, these urban economies are creating growing income inequalities between rich and poor. These inequalities are exacerbated in the urban regions of developing countries, where low-paid and precarious employment is increasingly concentrated in burgeoning informal sectors.

Relative to their OECD counterparts, urban regions in developing countries are also characterized by a far faster rate of industrialization and population growth, placing tremendous strain on urban infrastructure and services, with the resulting impact on competitiveness.

3.2.2 International Economic Trends

Structural Changes to the Economy

Structural economic change has seen the decline of traditional sources of employment. There has been a redefinition of the role of the state that has severely weakened or even removed traditional mechanisms for reducing inequalities generated by labor markets. These changes have placed tremendous pressure on cities and urban regions to attract new forms of investment. This has meant fierce competition between cities, often within individual countries.

For example, Bangladesh's economy is characterized by a growing informal economy, and a narrowing formal economic base in its urban centers, unstable resource prices, decreasing manufacturing sector and increasing unskilled labor force for service. It is faced with the challenge of training and developing technologies for the new economy and global competitiveness and integration. In China, industrial restructuring has been taking place in the context of a withdrawal of the State from industrial sectors and the rise of the services sector.

Though still important in terms of providing employment, State-owned enterprises represent a rapidly declining proportion of urban industrial output. In Cuba, the disintegration of the Soviet Bloc, followed by the ongoing trade embargo, have caused a dramatic economic emergency.

In the larger urban areas, this emergency resulted in the closure of manufacturing facilities, led to increased unemployment, caused severe shortages in the food supply, substantially reduced fuel-dependent public transportation services; and resulted in major disruptions in the electricity system.

Demands on Urban Services

The increase in urbanization creates tremendous demands for the provision of services, infrastructure development and access to employment opportunities for urban dwellers. The provision of urban infrastructure and the use of space and place have been important elements in this restructuring. The debate over privatization of public utilities in terms of whether it will or has replaced the ideals of universal access with privileged access and exclusion continues to be a central debate for disadvantaged urban communities.

Corporate control of urban space is increasing. In some cases this has led to a total commoditization of public space. However, in developing countries, as the formal global economy shifts, local space, informal economies and settlement growth supplement the lack of access to formal housing and forms of work.

The Caribbean Development Bank's 1999 *Strategy for Urban Revitalization* identifies a range of urban problems facing Borrowing Member Countries. These include inadequate infrastructure facilities; inadequate road networks, declining affordability of urban housing stocks, and underinvestment in social and community services.

By limiting access to urban-based employment and the provision of affordable urban services, these factors are seen as contributing directly to growing urban poverty and social inequality.

Unemployment and Income Inequality

The 2003 Human Development Report (UNDP) points to a widening income gap. This includes inequality between the world's richest and poorest nations, as well as levels of inequality within individual countries. While cities are faced with a need to deliver services vital to maintain competitiveness, they are also faced with the challenge of increased administrative and financial autonomy. Redistribution of income and delivery of social services, previously the responsibility of the central government, is increasingly being taken on by municipal governments in urban centres. These tasks are monumental and require skills and capacity that are not yet available.

In the Chinese context, mass migration of underemployed rural labourers to cities, coupled with layoffs in older urban industries, is placing a strain on urban infrastructure and social services and creating a new urban poverty.

3.2.3 Urban Planning Responses

The general response of urban planners to these economic issues has been to apply tools of integration, collaboration, and empowerment to local economic development intended to enhance competitiveness while reflecting local priorities and needs. These measures include the formulation of pro-poor local economic development policies and practices; micro-finance and small and medium enterprise development; supporting partnerships with the private sector and civil society; and catalyzing the informal economy, including home-based employment, self-employment, and street vendors.

While the following examples from China and Cuba represent very distinct contexts, the approach and intended results are consistent with broader objectives of planning.

China: Metropolitan Governance in the Province of Hunan

The city-region of Changsha-Zhuzhou-Xiangtan in Hunan Province is in the process of moving toward a form of integration. All three cities depend on the same river for water supply and sewerage outflow, and have similar industrial histories. Rather than a single government, the three municipalities are addressing mechanisms for coordination in planning and service delivery, and the creation of regional institutions for environmental management and wastewater collection and treatment. The concept of the integration of the three cities has become the driving force of Hunan provincial planning. The potential benefits of integration are thought to be increased influence for the urban region in its competitiveness vis-à-vis other major Chinese urban regions; coordinated urban growth management; more effective and efficient delivery of services in sectors like water supply, wastewater management, solid waste disposal, and public transit between the cities; regional environmental management; and increased inter-firm cooperation and trading, leading to cluster development.

Cuba: Integrated Neighborhood Transformation Workshops (TTIBs)

Cuba's new economic conditions required new techniques for the planning, control and management of the country's economic and social processes. The economic emergency led to the recognition of the opportunity to mobilize grassroots resources through popular participation.

Community efforts were supported to identify creative solutions, and alleviate community problems. Integrated Neighborhood Transformation Workshops (Talleres de Transformación Integral Del Barrio – TTIBs) were established, consisting of multi-disciplinary teams who reside and live in their communities and coordinate the planning activities with local leaders and residents. The mission of the TTIBs is to promote the participation of local institutions and the population in transforming the community, using an integrated approach to address neighbourhood needs.

These transformations are both physical, focusing on the improvement of living conditions, and social, being grounded in the process of participatory community development. The resulting community strategic plans are presented for approval to the local authorities. Municipal departments contribute to plan implementation, allocating material and financial resources to support community-defined priorities. There are currently 20 Integrated Neighbourhood Transformation Workshops in the City of Havana, encompassing approximately 500,000 of the city's 2.2 million inhabitants.

3.3 Summary

The challenges of economic sustainability facing both OECD and developing countries relate to the dual role of urban regions as engines of economic growth, and contributors to income inequality and over-consumption of resources. The role of urban planners in this context is to continuously balance the demand for sustained economic growth with the need for a rational and equitable use of resources.

It is clear that issues of political instability and dearth of resources remain major obstacles to economic restructuring and adaptation in the developing world. While Canadian cities must grapple with similar challenges, they can at least make decisions with an expectation of political stability and reasonable resource levels. Canadian cities have also benefited from many decades of urban-focused regional land use and regional economic development planning. These initiatives have contributed to more co-ordinated urban/rural land use planning in the case of the former, and reduced inter-regional urban economic disparities in the case of the latter.

Urban sprawl is a major economic, as well as social and environmental issue in Canada and overseas. The externalities associated with sprawl are well-documented and disturbing. The examples noted in this section indicate that anti-sprawl strategies, such as intensification and brownfields redevelopment, make very good economic sense because they increase the potential for revenue generation through new property taxes, make optimal use of existing infrastructure, and reduce the need to finance suburban infrastructure. Initiatives that deal with economic challenges also address key social issues such as a shortage of affordable housing, problems with accessibility and mobility, and equity generally. Finally, economic-oriented initiatives can solve environmental problems by reducing consumption of urban fringe agricultural and resource lands.

It is interesting to note that partnerships and strategic alliances are common in Canadian and international cities. The message is that the changes created by economic restructuring and growth require collaborative responses to mutual ends, many of them driven by the communities themselves.

The next section of this paper examines social sustainability challenges and solutions.

4.0 Social Sustainability

This section begins with the definition of several concepts central to social sustainability then outlines the major social trends in Canada and their implications for urban planning. Next it identifies key urban social issues and finally describes Canadian urban planning practice responses to these issues. This section concludes by summarizing key areas of planning innovation in planning for social sustainability.

4.1 The Canadian Experience

4.1.1 The General Context

Social sustainability emerged as a fundamental component of sustainability with the recognition that environmental sustainability was unattainable without accompanying social justice. Urban social sustainability is a process of urban development, supported by policies and institutions that ensure harmonious social relations, enhance social integration and improve living conditions for all groups (Enyedi 2002; Stren & Polèse 2000). A central concept within the social pillar of sustainability is equity. Equity refers to the redistribution of resources as well as equal access to the means by which to fulfill basic human needs, including housing, employment, public facilities and services.

In the past, urban planning policies, processes and other practices assumed a single public interest. In this way, they did not always address the full spectrum of human needs nor consider the social, economic and political barriers facing individuals and groups. Planning for a single "public interest" or for the "average" citizen results in policies and programs that can sometimes exclude vulnerable groups from fully participating in, and benefiting from, society. Many social groups have unique needs. Disadvantaged groups often lack the social, political and economic resources to fulfill or advocate for their needs.

In a socially sustainable approach to urban development, planning organizations facilitate the participation of all social groups in identifying and addressing social issues and needs. A socially inclusive society integrates all of its members into the civic, social, and economic life of society.

4.1.2 Canadian Urban Social Trends

Canadian society has experienced tremendous transformation over the past century. These changes have had direct and indirect effects on urban development, in terms of the needs and values of urban residents, the information required for policy development, the processes used in policy development and plan implementation, and the criteria by which outcomes are assessed.

Canada has a highly urbanized population. In 2001, approximately 80% of Canadians lived in an urban area (10,000 people or more), with just over 64% of people living in Canada's 27 census metropolitan areas (CMAs). Urban growth has been highest in four areas, which account for 51% of the national population: 1) British Columbia's lower mainland; 2) the extended Golden Horseshoe in southern Ontario; 3) the Calgary-Edmonton corridor; and 4) the Montreal and

adjacent region. Growing manufacturing and service-based economies coupled with high immigrant settlement account for most urban growth, with the exception of Alberta's healthy oil industry (Statistics Canada 2002).

Canada's demographic profile can be described by several trends. As a result of a combination of Canada's spectacular post-war "baby-boom" cohort, increasing life expectancy, and low fertility rates, Canada has an aging population. The median age is rising due to the increasing proportion of residents over 65, which by 2010 is expected to be around 20%. Population growth rates are declining, but have been offset somewhat by high rates of immigration (Bourne 2000; Bourne and Rose 2001).

Other significant trends include the decreasing size and dynamic nature of households, the steady feminization of the work force and the increasing ethno-cultural diversity of Canada's largest cities. The rising income gap between the highest and lowest income groups is also of great concern (Hunsley 1999; Scott et al. 2000; Lee 2000).

Between cities across the country, there are some variations in social conditions. Higher rates of poverty are experienced in cities in Quebec, and centrally located cities of CMAs. Western and northern cities host higher proportions of Aboriginal peoples and large cities, particularly Toronto, Montreal and Vancouver have the highest numbers of immigrants and refugees.

Within Canadian cities, differences occur between inner city, inner and outer suburbs, in what is sometimes referred to as the "donut" effect. In general, Canadian inner cities have experienced lower growth, an under-representation of youth, over-representation of the elderly, increasing numbers of single person households, and generally higher proportions of immigrant communities. Inner suburbs are also aging communities, while the outer suburbs generally experience the greatest influx of young families (Bourne 2000; Bourne et al., 2001; Statistics Canada, 2002).

Social trends hold many implications for urban planning. Groups such as the female labour force, the growing proportion of elderly, aboriginal populations and recent immigrants require city governments to consider the full spectrum of human needs. Planning for these needs must address services (e.g., child care, health services, transit), infrastructure (e.g., care facilities, institutional and housing needs) and design (e.g., accessible built environments).

Social demographics and social issues are important considerations in designing solutions for more traditional urban planning issues such as land use intensification, subdivision planning, downtown revitalization and transportation planning. For example, planning for intensification must take into account the effects of decreasing household size on efforts to increase residential densities; downtown revitalization planners must consider the impact of economic revitalization on the affordable housing stock in core areas.

4.1.3 Key Canadian Social Issues

Traditional urban planning has been physically focused, primarily addressing land use, transportation and physical infrastructure. In the past, social issues were relegated to the more

orthodox social professions like health, education, and social work. Over the past half century, this separation between the physical and social issues has become increasingly blurred.

There has been a slow but steady progression towards the integration of the two areas such that it is now common for social planners to consider land use and other physical aspects of planning in their work, and for more physically oriented planners to address social issues. Six issues are examined below: low income (affordable housing and homelessness), accessibility, public safety, the elderly, immigrants and aboriginal peoples.

Low Income

The growing income gap between the most and least wealthy sectors in society has been a growing concern in Canada over the past decade. De-industrialization, globalization, and economic restructuring coupled with public sector reform have contributed to profound social and economic shifts in Canadian society. These factors have resulted in the increased exclusion of individuals and families from resources and supports.

Several groups are experiencing high rates of poverty, particularly Aboriginal peoples, recent immigrants, visible minorities, people with disabilities, youth and children, elderly women, single parent families and unattached individuals (Lee 2000). This trend puts these vulnerable groups at high risk of further marginalization. Increases in the spatial concentration of poverty in neighbourhoods are also of concern when it leads to isolation and exclusion (Federation of Canadian Municipalities and Arundel, 2003). Homelessness and affordable housing are two critical urban planning issues in the maintenance and enhancement of social sustainability.

Affordable Housing

Affordable housing in Canada has been a significant concern in most municipalities over the past two decades. During the 1990s, the federal government devolved its housing responsibility to the provinces, which, in many cases, further devolved social housing to the municipal level. Affordable housing advocates observed that since the late 1990s, affordable rental stock supply has not kept up with the demand. The private market is not able to accommodate the needs of low income households, in part, because household incomes have not increased at the same rate as rent increases. Of particular concern has been the growing number of households who spend more than 50% of income on housing, the majority of which are families with children, senior citizens and aboriginal peoples (Federation of Canadian Municipalities 2000). As an important dimension of poverty alleviation, the issue remains critical as the income gap within Canadian society grows.

Homelessness

Since the 1980s, an increasing number of individuals and families have been unable to adequately fulfill their housing needs resulting in four categories of people: those without shelter, those temporarily housed with friends or family, those at risk of becoming houseless, and those in inadequate or substandard housing conditions (Springer 2000). Estimating numbers of homeless is always a difficult task; however, in the late 1990s most cities reported increasing

numbers of people using emergency shelters. In some cases usage rates doubled over a five-year period (Hulchanski n.d.).

Accessibility

Issues related to accessibility affect a wide spectrum in society. In the built environment, these issues include barriers to mobility, access to sites and buildings and design features appropriate to all people. Accessibility issues primarily concern the elderly, people with disabilities and people in rehabilitation. They have been supported by architects, interior designers, health and social services representatives, urban planners and gerontologists. The traditional approach to design has been to cater to a specification that is "average" or conducive in concordance to a specific population. Advocates of accessibility point out that at one time or another, all people have some aspect of their mobility or their senses impaired or limited. Therefore, all people benefit from an accessible society, not only those with limited mobility.

Public Safety

Safety is another important urban social issue. While traditionally safety has been viewed as an issue concerning the protection of women and children from violence, safety and perceptions of safety are important to high quality of life for all. In its broadest terms, the enhancement of safety is used in reference to efforts to decrease injury and increase behaviours that improve health (Safer Calgary 2000).

Elderly

Canada has an aging population. Some planning issues related to the elderly relate to issues such as accessibility and safety, as outlined above. Additional issues of concern to the elderly include access to services such as transportation, health, recreation and social services that help to maintain high levels of quality of life throughout the aging process. Many seniors prefer to "age-in-place" which requires access to services from their original places of residence. Additional services will also require the development of physical infrastructure, such as care facilities and supported housing (City of Toronto 1999).

Immigrants

Canada's largest metropolitan regions are cosmopolitan communities. In 2001, almost one-fifth (18%) of Canadian were foreign born. Most live in metropolitan areas, particularly those who arrived during the 1990s. Nearly three-quarters (73%) of these recent immigrants settled in three areas: Toronto, Vancouver and Montreal (Statistics Canada 2003b).

There is great diversity in the ethno-cultural profile of Canadian cities, due to a variety of settlement patterns. However, in general, Canada's largest cities have increasing populations of visible minorities from a very diverse range of ethnic origins. Many recent immigrants face difficulties in finding affordable housing and making the transition to economic and social integration. Settlement and support services are needed to help ease this transition period.

Aboriginal Peoples

Canada's Aboriginal population is increasingly urban, especially in western cities like Winnipeg, Edmonton, Saskatoon, Regina and Vancouver. Almost one half (49%) of aboriginal peoples live in cities. It is a young population, with more than half of its members less than 23.5 years old (Statistics Canada, 2003a). Due to the combination of many factors such as high poverty rates, low education levels, cultural differences and discrimination, many Aboriginal households experience significant barriers to fulfilling some of their basic needs such as employment and affordable housing.

4.1.4 Urban Planning Responses

Innovation in planning for social issues takes place in the public, private and civil society sectors. Planning in the public sector is highly influential because it sets the regulatory and incentive frameworks under which private and civil society actors operate. However, the private and civil society sectors have also made substantial contributions through the development of new planning concepts, tools and processes. New governance models encourage the creation of inter-sectoral strategic alliances and partnerships that demonstrate the positive impacts from applying combined resources.

Planners have several mechanisms through which to address social issues in planning. These include:

- Consultative processes to assess and synthesize community goals and values (e.g., community visioning).

- Use of research, community, expert or advisory committee consultation in the definitions of problems and solutions.

- Use of policy development and implementation tools (both regulations and incentives) to address identified problems.

- Monitoring and evaluation to track and assess community outcomes.

This section describes case examples of urban planning responses to social issues, highlighting recent innovative practices.

Responses to Affordable Housing

Affordable housing needs are currently being addressed at federal, provincial and municipal levels through a variety of means. One approach has been to examine various alternatives to expanding the stock of affordable housing (e.g., the Grow Home) (Friedman 2001).

One initiative, Affordability and Choice Today (ACT), is funded federally and implemented locally. The multi-pronged approach of ACT addresses four issues related to providing more affordable housing:

- Streamlining approvals processes;

- Facilitating new forms of housing (e.g., secondary suites, garden suites, multi-generational housing, and rooming housing;

- Regulatory and incentive programs to promote infill, intensification and conversion; and

- Alternative land and site development standards (Canada Mortgage and Housing Corporation et al. 2004).

Kingston, Ontario. After the mid-1990s, the province of Ontario developed the Consolidated Municipal Service Manager model through which to deliver human services, including the devolved social housing programs and services in 2000. Affordable housing became a critical issue in Kingston as vacancy rates began to fall at the turn of the century, dropping to 0.9% in 2002. As the local service manager, the Housing Division at the City of Kingston is currently participating in the federal Community Rental Housing Program to create new housing units, while at the same time, developing an affordable housing strategy that addresses property management, housing services, shelter and land use development (City of Kingston 2004).

Saskatoon, Saskatchewan. Saskatoon Housing Initiatives Partnership (SHIP) is a non-profit organization that facilitates the development of affordable housing. Working in partnership with the City of Saskatoon, SHIP facilitates community input, provides technical assistance, researches alternative financing and incentives for housing construction, facilitates networking among housing providers, and participates in public education and advocacy for affordable housing (Saskatoon Housing Initiative Partnership 2004).

Regina, Saskatchewan. The City of Regina recently used design charrettes to develop affordable housing design strategies. The design charrette is a tool used in architectural and planning education, as a process of bringing together a group of people for a short but intense workshop, to develop design ideas. The *Regina Affordable Sustainable Housing Charrette* brought together technical experts, community and partner organization representatives to develop affordable housing design ideas that suit economic, social and environmental goals.

Montréal, Québec. The City of Montréal is probably doing more in social housing than any municipality in Canada. The federal and provincial governments are reinvesting in social and community housing. Between July 2003 and June 2004, 1,700 housing units will have been produced in regions most affected by the need of social housing: Gatineau, Montréal, Québec, Laval, Lévis and Longueuil, with funding from two programs: AccèsLogis Québec and Logement abordable Québec. The provincial announced in February the 2004 emergency help program for households that could become homeless coming July 1st. The government will provide 3,700 emergency rent supplements – 1,200 more than last year.

Projects have to be initiated by cooperatives, non-profit organizations and the Office municipal d'habitation de Montréal to get funding. Propositions can involve building new housing units, rehabilitate existing housing units or transform non-residential buildings into housing. Target groups are unattached individuals, families, dependent seniors and people with special needs.

The community and social housing projects are often located to create social and economic vitality to decline neighbourhoods; some projects are built in vacant industrial buildings. The

projects aim to revitalize communities, increase socio-economic mixed. Plans for new housing are respectful of the urban environment, architecture and urban planning regulations.

Responses to Homelessness

Like affordable housing, responses to homelessness have been supported by federal, provincial and local efforts, supplemented by non-profit organizations, private sector organizations and First Nations communities.

Halifax, Nova Scotia. In Halifax, the Community Action Plan On Homelessness (CAH) addresses issues surrounding absolute and at risk homelessness. The plan draws on research, community consultations and the voices of youth, aboriginals, and other visible minorities. The CAH advances projects through funding from the Supporting Communities Partnership Initiative (SCPI), a National Initiative on Homelessness, funded by Human Resource Development Canada.

The objectives of the CAP are to: increase supports; identify gaps and continuums of supports for homeless and at risk groups. The objectives of the CAP include affordable housing and ensuring that at risk populations have access to resources and supports that improve their quality of life. The CAH aims to prevent at risk groups from falling into homelessness and to increase community awareness across all domains of the challenges confronting individuals in accessing safe and affordable housing. In keeping with the CAP goals the RMH seeks to increase partnerships and address policy issues.

Victoria, British Columbia. One tool of the City of Victoria's Homelessness initiative has been the Assets and Gaps Inventory. This provides a snapshot assessment of the programs and services of offered by the various organizations and agencies serving the homeless population. In recognition of the dynamic nature of the needs and concerns of this population, the inventory has helped the initiative to quickly identify strengths and weaknesses of the city's position (City of Victoria 2004).

Toronto, Ontario. An important development in efforts to address social issues such as homelessness, have been efforts to take a holistic, integrative approach to addressing the issue. The City of Toronto's Housing and Homelessness report cards, first released in 2000 by the Homelessness Action Task Force illustrates one such example. These annual report cards address affordable housing and homelessness together. This approach effectively examines many root causes of homelessness, one of which is the severe lack of affordable housing in the City of Toronto. The approach includes: 1) affordability supports, such as rent supplements and income security; 2) housing infrastructure initiatives, such as the creation of new affordable housing units; and 3) services and support for homeless or population at risk of homelessness, such as outreach services, housing support services, drop-in services, prevention and shelter services, health and mental health, awareness and education programs for parks, recreation and library services (City of Toronto 2003).

Responses to Accessibility

There are four areas in which responses to accessibility have emerged. The concept of Universal Design underlies most efforts. Accessibility plans are an emerging tool to assist municipalities to co-ordinate efforts. Advisory committees play a key role in this planning and non-governmental organizations are involved in service delivery.

Universal Design. The concept of Universal Design sets out principles for the design of products, communication and built environments to suit to a population with a range of capabilities. While the practice of Universal Design is gradually gaining more widespread acceptance, a recent study by the Canadian Mortgage and Housing Corporation (Gullison 2004) notes shortcomings in current state of knowledge of human variables and design guidelines. The study recommends further development in the area of qualitative and quantitative research, best practices, models, supported by greater leadership and coordination.

Accessibility Plans. In 2001, the province of Ontario passed the Ontarians with Disabilities Act. This act requires municipalities to prepare an annual accessibility plan. The plan must identify community barriers to accessibility, develop an inventory of policies and programs in place to address accessibility and outline future plans to identify, remove and prevent barriers.

Advisory Committees. Ontario legislation requires that all municipalities consult with persons with disabilities in the community. For municipalities with populations over 10,000, the municipality must create an advisory committee, half of whose members must be persons with disabilities, to assist the municipality to develop, implement, monitor and evaluate the plan. Other municipalities such as the City of Winnipeg also use advisory committees to guide municipal council on accessibility policy and program matters.

Windsor, Ontario. The Windsor Advisory Committee on Disability Issues has functioned as a standing committee of council since 1981. The recent provincial legislation on accessibility further supports the committee's past activities. Under the new legislation, the committee will examine and address the physical, architectural, informational, communications, policy, procedure and practice barriers to accessibility in the municipality (Dillon Consulting and The Corporation of the City of Windsor 2003; Windsor Accessibility Advisory Committee 2003).

A fourth area in which these issues are addressed has been through the development of non-governmental organizations focusing on accessibility. Unlike previous efforts that focused more on planning, accessibility NGOs implement programs and services to enhance urban accessibility.

Calgary, Alberta. Access Calgary is an incorporated non-profit organization which provides transportation services for those who are unable to use rapid transit trains and transit buses. The organization provides shared, door-to-door service integrating the services of Calgary Handi-bus and the Special Needs taxi program (Access Calgary 2004).

Responses to Public Safety

Four approaches stand out in recent Canadian municipal practices addressing safety: 1) consultative processes such as advisory committees, task forces or working groups; 2) safe city guidelines, policies in community master or official plans, or specific safety policy plans; 3) the use of an assessment tool called the safety audit; and 4) monitoring through safety indicators

Toronto's Safe City Committee. This advisory citizen-based advisory group to Toronto's municipal government came together in the early 1980s as a result of a partnership of local politicians, bureaucrats and grassroots activists in response to serial rapist activity. The committee worked with municipal staff, the local transit authority, city police services and community-based organizations on a number of initiatives such as improving the safety of public places like transit stops and parks, changing the development approval review process to include safety criteria, and public education campaigns (Metropolitan Action Committee on Violence Against Women and Children 2004)

Safety Audit. The Safety Audit has been a popular tool for assessing neighbourhood safety in recent years. A safety audit is conducted by a small number of people in a neighbourhood, facility or site of concern. The audit is often carried out at night, in order to identify features and sites that are either conducive to crime or to perceptions of danger. Identified problems are then addressed through changes to lighting, landscaping, street and site design, guidelines, regulations, policies or review processes.

Reponses to the Aging Population

Some issues related to older persons, such as accessibility and safety, are similar to other groups. As such, initiatives described above include these concerns. In other areas, such as affordable housing, the specific requirements of seniors differ from other people with the same general need.

Many municipal efforts to address the particular needs and concerns of seniors have involved task forces or research projects to identify how seniors understand important issues and to seek their assistance in developing strategies. A second area of municipal activity has been in supportive housing. Local governments play an important goal in three areas: 1) establishing policy and planning frameworks for supportive housing 2) developing pedestrian-based barrier-free public works infrastructure, and 3) providing incentives for supportive housing development (Government of British Columbia 1999).

Calgary, Alberta. The *Elder Friendly Communities Project* was a collaborative project involving practitioners and academics from local government, social work and health care. The project used a participatory research approach to ensure that the perspectives of seniors were central to the research process. Through four case study communities, the project assessed the assets, capacities and needs of seniors and their families (Austin et al. 2001).

Richmond, British Columbia. In consultation with the City's Seniors' Advisory Council, representatives of the construction industry, health care representatives and social housing

organizations, the City of Richmond developed the *Affordable Seniors' Supportive Housing Design Guidelines* (City of Richmond 2002).

The guidelines provide direction in eight areas: neighbourhood design, building form, provisions for accessibility, design features to support aging in place, private space, common areas and amenities, safety features and supports features.

Responses to Ethno-Cultural Diversity

Municipal responses to the ethno-cultural diversity brought about by immigration are varied. Basic human services such as employment, training and health services are among the most immediate needs of immigrants. Affordable housing is another critical issue addressed above. In most cases, urban planning responses to municipal ethno-cultural diversity have taken place on an *ad hoc* basis. In response to land use conflict or policy needs, some municipalities have begun to make policy and implementation changes in the areas such as places of worship and retail practices. In a few notable exceptions, municipalities are taking a proactive stance to the ethno-cultural diversity.

Vancouver, British Columbia. Vancouver's *CityPlan Community Visions* provides a good case example of a proactive approach to ethno-cultural diversity. In its neighbourhood visioning process, the City of Vancouver recognized up front that they needed to address ethno-cultural and linguistic diversity in their outreach and communications strategies. In ethno-culturally diverse neighbourhoods, the city identified key ethnic groups with high proportions of neighbourhood residents (e.g., Cantonese and Punjabi speakers). The city then employed outreach workers, used ethno-cultural media to publicize events, translated surveys, educational and communication materials, and used translation services for community meetings and workshops. These efforts helped to facilitate the participation of recent immigrants in the community visioning process (Lee 2002).

Responses to Aboriginal Communities

Municipal responses to their aboriginal communities vary with the proportion and characteristics of the urban Aboriginal population. Affordable housing and homelessness are important issues that Aboriginal communities share with other Canadian urban social groups. Many municipal initiatives address Aboriginal concerns in conjunction with planning for neighbourhood revitalization and related community development initiatives. Aboriginal non-governmental organizations play key partnership roles in these planning efforts.

Winnipeg, Manitoba. Winnipeg's *Municipal Aboriginal Pathways* is part of the city's large urban development strategy within the Plan Winnipeg 2020 Vision. Facing slow growth, labour skills shortage and out-migration, the city is looking to its Aboriginal population as a key source of future growth and increased potential. While the project is in its initial stages, it maps out a strategy that includes employment, safety, economic development, quality of life, outreach and education. These initiatives will work in partnership with existing Aboriginal networks, organizations and programs (City of Winnipeg 2003).

4.2 Social Issues – International

4.2.1 The International Experience

Urban social sustainability involves responding to the polarizing and marginalizing effects of globalization at the levels of community, family and individuals. OECD countries are addressing these challenges through targeted neighbourhood regeneration schemes, invigorating public spaces, and strengthening social cohesion. For their part, the conditions for social cohesion, community identity and civic engagement remain relatively high in many developing countries.

This is due in part to the historic absence of the State from the day-to-day lives of families and communities. Instead, the primary challenge is the incidence of absolute deprivation amongst the urban poor.

4.2.2 International Social Trends

The social consequences of rapid urbanization, globalization, economic growth, income inequality and environmental degradation are being felt in cities in both the North and South. Urban populations are feeling increasingly vulnerable to public health scares and infectious disease, crime and violence. The response is increased security, gated communities, and social polarization. A lack of affordable land and housing and access to formal employment further marginalize the urban poor.

Social exclusion and poverty is concentrated in either squatter settlements located on the periphery of cities or in urban slums located in established inner-city residential communities. These communities are characterized by the exclusion of residents from municipal decision making and policy development; under-servicing in areas such as solid waste management, water supply and sanitation, and relative under-investment by the public sector in physical and social infrastructure; limited access to social and community services; barriers to income generation due to inability to access formal sources of financing, and the presence of policies and regulations that restrict a variety of forms of micro-enterprise; and a disproportionate impact from poor environmental quality, and risks to property and life from environmental hazards.

In sub-Saharan Africa, in particular, no discussion of future urbanization can be complete without reference to the problems posed by HIV/AIDS. The alarmingly high levels of infection and the grim decline in life expectancy that is now occurring poses unprecedented questions about how to manage urban change.

4.2.3 Urban Planning Responses

An important tradition in urban planning is the concern for public health and the social well-being of the urban poor. The following six examples from cities in the North and South illustrate a broad range of urban planning tools being applied to address social exclusion and poverty in urban areas.

Liverpool, U.K.: Neighborhood Revitalization and Local Neighborhood Renewal Strategy

Social exclusion and dislocation continue to be features of the socio-economy of this U.K. city. Neighborhood renewal strategies are piloting new ways of engaging local communities. Planning is responding to these issues by prioritizing and targeting redevelopment needs of communities.

City improvement districts are emerging to supplement the need for topping up services that the city cannot deliver. In terms of housing, key planning concerns focus on rising vacancy rates, falling property rates and, poor housing stock conditions (Liverpool Housing Strategy, 2002).

In the case of Liverpool, the introduction of a national Public Service Agreement targeted for decent homes requires all local authorities to reduce the number of households living in substandard social housing by at least one-third between 2001 and 2004. These standards must be achieved by 2010.

Therefore, priorities were identified as: carrying out repairs and improvements to all council owned homes throughout the city; clearance of unsustainable council homes; provision and site development for rent and sale; provision of stock and transfer for tenants; and implementing a Liverpool Asset Management Project to track the popularity and condition of social housing stock to inform future investment. Additionally, the city established a minority housing strategy, accommodation strategy for older people, and a strategy to address homelessness. Each of these initiatives is supported by local strategic partnerships and facilitates open forums for tenants in area forums.

South Africa: Integrated Development Planning

Urban planning during the era of Apartheid fragmented the urban landscape in terms of infrastructure, service delivery, municipal authority and civil society. New approaches to urban planning are now addressing the tensions between the established infrastructure and new forms of urban management and development. Distinctions were prevalent in the realm of service delivery. Housing, health, education, and infrastructure (water, transport, and electricity) did not work in concert with one another; each distinct service was disconnected from existing development. Little consideration was paid to integrated development and the links between urban development and socio-economic realities.

The Urban Development Framework (UDF) of South Africa proposes an integrated planning and implementation framework for urban development through four programs:

- Integrating the city, through integrated development planning

- Improving housing and infrastructure

- Promoting urban economic development which builds on local resources

- Creating institutions for delivery, which emphasize inter-sectoral collaboration and the transformation of the public sector

The Integrated Development Plan (IDP) is a primary mechanism for ensuring institutional reform, budgetary alignment and accountability to development targets. The IDP is a tool that

laterally instills a local government and urban development practice that is multi-sectoral and collaborative to ensure that all revenue and budget, service delivery requirements and governance practices are collaborative and are aligned with public participation processes. Horizontally, the IDP sets out the planning perimeters for national, provincial and local spheres of government.

An IDP is a process through which a municipality can establish a development plan for the short, medium and long term. It enables a municipality to: (i) assess the current reality in the municipal area, including economic, social and environmental trends, available resources, skills and capacities; (ii) assess the varied needs of the community and different interest groups; (iii) prioritize these needs in order of urgency, importance, and constitutional and legislative imperatives; (iv) establish frameworks and set goals to meet these needs; (v) devise strategies to achieve the goals within specific time frames; (vi) develop and implement projects and programs to achieve key objectives; (vii) establish targets and monitoring tools/instruments to measure impact and performance; (viii) budget effectively with limited resources and meet strategic objectives; and (ix) regularly monitor and adapt the development programs based on the underlying development framework and development indicators (Parnell and Pieterse, 1999).

Uganda: Planning for HIV/AIDS

In November 2000, 26 Mayors in Uganda signed a Declaration and made a public commitment to research solutions to HIV/AIDS relevant to local needs and realities. They launched a national chapter of the Alliance of Mayors and Municipal Leaders on HIV/AIDS in Africa. An action plan was developed and various start up activities initiated in a number of municipalities, including Jinja. Community-based action was considered critical to the action plan. The involvement of local government is essential because national HIV/AIDS policies cannot be fully implemented from the centre.

HIV/AIDS requires a revision of planning practice that is considerate of issues such as health care, radical shifts in demographics, a restructured labor force, the changing nature of the family and household structure, flexible housing, and planning for sympathetic and educational environments.

In terms of housing for people living with HIV/AIDS, planners have responded with various programs for revitalizing old housing structures and designing "loose-fit" buildings for future adaptation. Ongoing community needs analysis as well as the utilization of GIS application to trace the spread of HIV/AIDS (i.e., chronopleth techniques showing rates of incidence per administrative district) are built into the planning process and projects.

Broader innovations include reducing distances between work and home, creating safer streets for women traveling to and from work, and building structures with limited requirements for ongoing maintenance, and policies and programs, which address the broader social and economic development implications of the epidemic.

Bangladesh: Building Social Cohesion in Informal Settlements

Bangladesh is a case that characterizes many of the issues, contradictions and problems of urban centers in the South. Planning approaches for the targeted population of the urban poor include

urban resettlement, 'formalizing' informal settlements, increasing accessibility and social inclusion. These schemes are based on the principles of accepting that informal settlements are here to stay, and recognizing that relocation schemes destroy the social fabric and livelihood networks and strategies that have evolved over many generations.

Planning approaches formulate and enforce controls and regulations which encourage redevelopment that is responsive to community needs and conducive to the process of a viable environment. They also involve preparing a register of buildings of architectural, historic, religious and cultural interest to assure their continued use and maintenance through adaptive use.

Equally important is the identification of well-located land parcels across the city and preparation of these for future informal settlement. Preparation includes the provision of large landscaped spaces for cultural community facilities; peripheral green space for livestock; a hardened primary circulation space allowing for emergency access and delivery vehicles; and a network of utility services paralleling the major routes and connecting the squares (Dewar 2002). Planning according to locally specific and culturally relevant and responsive guidelines is the best criterion for success and local buy-in.

Trinidad: Addressing Poverty & Social Development

East Port of Spain is a densely populated hillside area located within the City of Port of Spain, characterized by low incomes, unauthorized and unplanned development, squatting on State and Municipal Corporation lands, inadequate physical and social infrastructure, vulnerability to land slippage and flooding, and high incidences of youth crime and unemployment. While the precise incidence of HIV/AIDS in the area is not known, estimates provided by the City's Public Health Department indicate that Trinidad has the 17th highest incidence in the world. These characteristics reflect the area's status as one of the most socio-economically and physically marginalized communities in the country.

The Government of Trinidad and the City of Port of Spain initiated a community planning process in 1999 intended to "open up" the planning process to affected communities, and increase the integration and coordination of similar or complimentary programs being carried out by community organizations, government agencies and other sectors. Professionals and community leaders were trained to support more inclusive planning processes. Community representatives were provided a greater understanding of the planning process, while professionals were sensitized to community realities and the legitimacy of community input in the planning process.

In November 2003, a three-year Integrated Urban Community Planning & Development (IUCPD) Project was initiated to address the need for the planned implementation of social and physical infrastructure projects. The project is demonstrating and testing a methodology for replication in other communities. Three key aspects of this methodology are the participation of a broad range of stakeholders in plan formulation, integration of both physical and social development priorities into municipal development plans, and the linkages between plan formulation and plan implementation.

Australia: Guiding New Developments for a More Sustainable Urban Future

The Livable Neighbourhoods plan is an implementation tool for the sustainability objectives of the National Australian State Planning Strategy and sets out to integrate and manage the city's future development plans towards a safe, inclusive and culturally vibrant city. Planning responses are aimed at encouraging mixed-use and dense urban developments where goods, employment and services are located locally.

Neighbourhoods are places in which one can walk from home to work to leisure activities. Support is given to create public spaces that are for multi-use and for multiple identities to converge thereby making possible a greater sense of community and identity. This urban fabric increases personal safety, the building of local social capital and greater interaction between citizens – a better quality of living (Armstrong 2002).

Additionally, development-planning furthers sustainability goals by limiting the use of vehicular transportation, global warming, oil dependence, physical inactivity and increasing costs of private transport. Pedestrian Initiatives in the City of Perth have attempted to promote a shift in the cultural logic of communities such that people are educated towards the benefits of walking or "traveling smart" (Prince 2002). Street networks are planned where buildings face the street to increase personal security and activity. A Metropolitan Region Pedestrian Strategy, advisory committee and National Pedestrian Council support this promotional agenda.

4.3 Summary

Urban planners in both OECD and developing countries seem to rely on a similar set of approaches in responding to social sustainability. The roles of public consultation and community engagement are crucial in this respect. To be effective, communities must take ownership of the planning processes that are intended to solve local problems. Urban planners are also developing methodologies that effectively connect economic and physical development to social priorities, such as HIV/AIDS.

Planners in both settings concentrate on building capacity at the community level, and on building community and sense of place. The objective in both cases is achieving a healthy community in all its permutations. Cities in Canada and in many other nations are socially complex, with diverse publics that have different needs and expectations. Clearly, it will be necessary to design and deliver programs and policies that acknowledge and address social diversity.

Social sustainability efforts are jeopardized in both settings by increasing rates of infection from serious disease. Basic needs must be met before community development planning is attempted. However, there are many examples of innovation by planners and community development specialists that offer considerable hope for community vitality. The examples cited in this section demonstrate that social issues can be addressed through planning interventions. Further, these interventions can have multiple spin-offs: they can positively address economic and environmental issues. For example, interventions that improve the quality of life for Aboriginals or senior citizens, such as improved housing, stimulate economic activity and can also improve the urban environment if brownfield sites are redeveloped. A healthier community reduces demands on the public health care system and can improve the productivity of a local economy.

5.0 Environmental Sustainability

To be more sustainable, cities must be planned and managed to reduce the consumption of material and energy resources. This includes minimizing the use or waste of non-renewable resources: the consumption of fossil fuels in housing, commerce, industry, and transport, plus substituting renewable resources where feasible. Environmental sustainability could be achieved by minimizing the waste of scarce mineral resources and by maximizing the use of renewable and recyclable materials. Urban planning and management must be considered in the broader contexts of landscapes and economic and social issues that affect the entire country. Concepts such as the ecological footprint that allow for integration of these issues should be used to evaluate the extra-urban impacts of urban development.

Ideally, environmental sustainability requires the maintenance and enhancement of a variety of natural habitats and cultural landscapes. This concept, called requisite variety, is based on the premise that variety contributes to ecosystem and human health. It is necessary to ensure continued biodiversity, and respect for traditions and sense of place. There is a related need to improve our understanding of sustainable environments through enhanced research.

Finally, we need to minimize urban sprawl through a more compact urban form. This can be achieved by making better use of existing urban infrastructure and lands. The tools of infill development, re-urbanization and higher densities can help achieve this objective. Another objective should be reducing reliance on motorized vehicles through encouragement of alternative transportation modes – cycling, walking, and public transit.

5.1 The Canadian Experience

5.1.1 The General Context

Traditionally within the environment pillar of sustainability, the definition has focused on the biophysical environment. This usually has included abiotic and biotic attributes, features and processes. The environment has become more broadly defined as the importance of integrating the biophysical with social and economic matters has emerged.

For example, the Ontario Environmental Assessment Act definition of environment captures this broader definition — environment means, (a) air, land or water, (b) plant and animal life, including human life, (c) the social, economic and cultural conditions that influence the life of humans or a community, (d) any building, structure, machine or other device or thing made by humans, (e) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or (f) any part or combination of the foregoing and the interrelationships between any two or more of them.

5.1.2 Canadian Urban Environmental Trends

The main trends in urban environmental issues addressed in this paper are grouped into four themes: air, water, waste, and energy.

Air

Urban air pollution in major Canadian cities such as Toronto, Vancouver and Montreal is generated through the burning of fossil fuels associated with energy production for use in urban residential heating and cooling, and transportation vehicles (Tyler 2000, 486).

Air pollution originating from the U.S. that is transported northward is also a major problem for certain Canadian jurisdictions. The effects are numerous including an increase in the number of smog alert days (City of Toronto 2002), health effects such as asthma (Canadian Broadcasting Corporation 2002), contribution to green house gas emission (Tyler 2000, 486), and long range transport of waste products, for example from central Canada, including lead, PCBs, and hydrocarbons that are "carried by prevailing winds and end up in groundwater, wetlands, or the marine food web" (Olson 2000, 235). A major cause of much of these problems is urban sprawl as over "50% of our cities' air pollution (plus much of the water and soil pollution) can be traced to cars and trucks…" (Fowler and Hartmann 2002, 156).

Water Pollution

Although Canada has an abundance of water, there has been "some difficulty maintaining water quality because a good deal of our water supply from rivers, underground water, and the great lakes has been contaminated" (Price 2002, 145). Industrial development in the Golden Horseshoe, Vancouver region, Montreal, and Halifax has resulted in the accumulation of industrial pollutants "over years in urban soils, in ground water, and at the bottom of the rivers" (Olson 2000, 236).

The country has also been affected by outbreaks of coli form and e-coli that have affected thousands of people, tragically killing seven in Walkerton, Ontario a small town surrounded by agriculture in southern Ontario. Emerging trends are also causing health concerns include contamination of water supplies with endocrine disruptors.

Water use trends are also increasing. According to Tyler (2000, 483), "between 1983 and 1994, the residential consumption of water in Canadian municipal systems increased by 23% relative to an urban municipal population increase of 16%." Urban development pressures that result in urban sprawl have "…removed class one soils from agricultural productivity, filled in wetlands, changed the course and flow of rivers and streams, removed habitats for a number of species, and modified local climates" (Tyler 2000, 483).

Furthermore, the "hard surfacing" of the landscape effectively removes and compacts soil, which prevents the infiltration of water from snow and rain" (Tyler 2000, 484). Impacts have been severe on ecosystems with the loss of over 70% of wetlands in southern Ontario, the urbanization of complete watersheds including the burying of watercourses and impacts on recreation such as the closures of beaches due to contamination. The dumping of raw sewage is prevalent in Canada into rivers or near-shore zones, around large cities such as Halifax and, until very recently, Montreal (Olson 2000, 236). The cities of Victoria and Halifax have only recently begun to construct sewage treatment facilities (Price 2002, 148).

Waste Management

Canada has a modern economy "based on the continuing and massive consumption of new products and on the discarding of the old" that results in the production of "huge quantities of solid waste" (Price 2002, 149). "Cities are in desperate need of managing their garbage more sensibly…" (Fowler and Hartmann 2002, 166). Waste management has emerged as one of the key issues in urban environmental management. NIMBYism makes it very hard to locate new waste management facilities and environmental movement organization (EMO) pressure to deal with the problem is forcing government at the municipal and provincial levels to change their traditional approaches.

The situation in Toronto is extreme but clearly illustrates the issues. The city has recently closed down the Keele Valley Waste Management site and now is relying on trucking its waste to Michigan, an obviously unsustainable practice and one being aggressively fought by EMOs in Michigan. A proposal to transport Toronto's waste by rail to an abandoned mine near Kirkland Lake, Ontario, some 600 km has also run into major problems because of opposition in Kirkland Lake, Toronto and residents along the railway route. This has forced Toronto into an aggressive waste reduction effort that includes a wet/dry separation process. An additional challenge in many urban centres is dealing with contaminated sites including old municipal dumps (Olson 2000).

Energy Consumption

Urban energy consumption is associated with "daily demands for heat, industrial production, and mobility, as well as the actual process of its own construction" (Olson 2000, 235). Furthermore, the amount of energy consumed by urban areas is also influenced by "the geographic location of urban regions and their macroclimatic context (such as seasonal temperatures, wind direction, and speed, humidity, precipitation, and topography) influence and are in turn influenced by the spatial and structural form of the built environment and its associated land-use activities" (Tyler 2000, 487).

Canada is located above the 49th parallel and this geography and climate requires extensive energy for heat in the winter and cooling in the summer. As land becomes urbanized "ecological capital in the form of biomass production, trophic (food web) energy systems, and flows of matter, nutrients and water" is transformed "through a construction process that consumes massive amounts of energy and materials. Once an area is constructed, energy continues to be consumed in heating, cooling, and transportation" (Tyler 2000, 484). As cities expand, their energy needs increase. More energy is needed to service low density expansion. Trends in major Canadian urban areas have seen cities expanding at low densities and as a result energy needs are higher (Olson 2000, 234).

5.1.3 Urban Planning Responses

Solutions to urban environmental problems have emerged even in the face of "substantial political opinion, which still questions the seriousness of environmental problems" (Fitzgerald,

in Price, 2002, 144). For example, there is "still a vocal minority opinion that questions the impact of climate change…" (Fitzgerald, in Price, 2002, 144). Solutions that are emerging to address the trends discussed above are inter-related and usually tackle more than one issue. Solutions discussed below include transportation planning, energy management, watershed planning, natural heritage planning, and brownfield re-development.

Urban Transportation Planning

Urban environmental planning is addressing a range of activities. Land use and housing policies are now being linked with other policies such as transportation. Transportation systems are being premised "on minimizing the movement of goods and people; relying more on public transit, walking and cycling; and relying less on cars" (Fowler and Hartman 2002, 160). Montreal and Toronto have long-established and highly successful subway systems. Many Canadian cities, such as the City of Ottawa and the City of Toronto, have adopted urban planning policies that facilitate alternative means of transportation. These policies include standards for rights-of-way that provide room for cycle-only lanes, HOV (high occupancy vehicle) lanes, and sidewalks. Several Canadian cities, such as Calgary and Edmonton, have invested heavily in public transit technologies such as light rail transit.

Energy Management

Energy is also addressed through sustainable energy infrastructure that supports the efficient production, transmission and use of energy. Initiatives include green buildings, district heating and cooling systems, green energy production, co-generation and tax incentives for sustainable energy projects (Fowler and Hartman 2002). Compact urban form, re-urbanization to maximize existing urban infrastructure, co-housing, urban agriculture, and improvements in waste management are also important elements in environmental planning and management (Fowler and Hartman 2002).

Watershed Planning

Watershed planning encourages multi-disciplinary approaches to dealing with planning and links science to policy development and decision making. Many of the most progressive watershed planning authorities operate within watersheds that include extensive urban areas. These authorities play the role of integrating information at the watershed scale. Watershed planning now usually incorporates water budgets, source/headwater water protection, wetland protection, natural heritage system integration and so on. Watershed planning contributes to solutions addressing urban sprawl, pollution and contamination.

Watershed planning is not standardized in Canada due to fragmented government responsibility for water. The process is, in many cases, linked directly to land use planning through municipal official planning, as in Ontario. Ontario has a long history of watershed planning with the Conservation Authorities Act that was passed in 1946. Each conservation authority has strong municipal ties, as municipalities both fund and provide leadership to conservation authority boards.

However, each is unique based on the abiotic, biotic and cultural make-up of its watershed and needs and resources available. Conservation authorities appear to have been revitalized recently in Ontario, contributing to a major source water protection initiative in response to the Walkerton, Ontario tragedy noted above.

In British Columbia, watershed planning initiatives are watershed specific; there is no over-arching legislation or program that supports extensive watershed planning. For example, the Fraser Basin Council has federal, provincial, local and First Nation representatives who carry our watershed planning activities for this significant river basin. Local community groups have also banded together to form the B.C. Watershed Stewardship Alliance to promote watershed planning in the Province.

Natural Heritage Planning

Natural heritage system (NHS) planning has recently emerged as an integral part of land use planning, in particular planning at the urban rural fringe. Natural heritage systems are now being designated and zoned for protection. A recent example is the Oak Ridges Moraine (ORM) Conservation Plan discussed below. The intent of these plans is to force development to the major urban areas. This assists urban authorities with "smart growth" and limits low density sprawl.

Natural heritage system planning involves the delineation of core and corridor areas. Core areas are relatively large undisturbed zones that serve to protect important natural habitats, maintain and possibly enrich biodiversity and species richness, and protect sensitive groundwater recharge and discharge zones. Core areas can also include lands that may return to their ecological function through restoration. Corridor areas are natural connecting links between fragmented elements of the core. Small core areas may not be sufficiently large to maintain ecological integrity and the movement of species between core fragments is enhanced by the presence of corridors. This movement may have several positive impacts on populations including an increase in overall biodiversity within the core areas.

Collaborative approaches are usually used to delineate and properly address NHS through land use planning. Collaborative processes associated with NHS planning are empowering communities through activities such as stewardship and monitoring, traditional activities that governments are now more willing to share with communities and civil society groups.

Brownfield Redevelopment

Brownfield redevelopment in Ontario is based on the integration of environmental, land use and economic issues. The characterization of brownfields as problems has evolved so that brownfields are now recognized as economic and community development opportunities (Ministry of Municipal Affairs 2000).

Integrative thinking and wide collaboration has resulted in the Ontario Brownfields Statute Law Amendment Act. This Act amended other legislation including the Municipal Act, Planning Act, Municipal Tax Sales Act and Environmental Protection Act. The legislation: provides for a property tax freeze or cancellation allowing for both provincial and municipal portions of the tax to be given up to help pay for remediation; improves the municipal tax sale process to facilitate

the lifting of tax arrears; improves the planning framework as an accountability framework for financial incentives to private developers; ties remediation standards to the sensitivity of the new land use; and requires those who carry out Records of Site Conditions to be licensed as qualified persons.

Early results are positive – brownfields are becoming a normal and desired development option, they are being advertised as development opportunities on municipal websites, and municipalities are increasingly using financial incentive tools and becoming facilitators of brownfield re-development. The broad lesson here is to build on success and opportunities associated with economic and community development, to be inclusive, and to place brownfields in a broad context of global economic competitiveness, jobs, housing, heritage, health and safety, smart growth, and neighborhood, community and city building.

Smart Growth from the Environmental Perspective

Niagara Escarpment Plan and Oak Ridges Moraine Conservation Plan

These two land use plans deal with regional areas that include urban areas. Large urban areas are also located in close proximity to these plans. The planning regime that guided development on the Niagara Escarpment prior to 1973 involved municipal control over land use planning delegated through the Ontario Planning Act and implemented through official plans and zoning. After extensive EMO advocacy and government study, a provincial planning system was introduced in 1973 that featured strong land-use regulation and public ownership through the Niagara Escarpment Planning and Development Act (NEPDA).

The purpose of the Act is to maintain the Niagara Escarpment as a continuous natural environment and to ensure compatible development. Objectives address protection and maintenance of the Escarpment's ecology, water, and open landscape character, along with adequate public access.

The NEPDA also established the Niagara Escarpment Commission (NEC), a 17-member body, nine members representing the public at large, and eight members representing the upper tier municipalities. The Commission prepared the Niagara Escarpment Plan that was finally approved in 1985. The Niagara Escarpment Plan detailed permitted uses through a seven designation system and development control criteria. These new institutional arrangements have resulted in urban development being focused in urban areas. Analysis of the results of the NEPDA and NEP suggests that this regional approach is an example of successful smart growth.

Similarly, the Oak Ridges Moraine Conservation Act and ORM Conservation Plan create a greenlands corridor that will act as a hard urban boundary for the expansion of the Toronto urban region. This will direct future development to the city and prevent urban sprawl in an important environmental and cultural area.

Vancouver Region Growth Management

The Greater Vancouver Region has been identified as a region with progressive growth management policies. The motivation for these policies is to "stem sprawl and thereby preserve the region's ecological features, reduce car use and the associated air pollution, and maintain a

high quality of life" (Tomalty 2002, 432). The Greater Vancouver Region District has 21 municipalities. The Growth Strategies Act of 1995 resulted in the Livable Region Strategic Plan becoming a growth strategy under the Act. A compact region concept was adopted in the Strategic Plan that would allow some growth in rural areas outside the already urbanized portion of the region but would focus growth in the core and inner suburban areas – approximately 70% in the growth concentration areas and 30% outside (Tomalty 2002). The Green Zone sets out areas with social or ecological value that will be protected from urbanization within the time-frame of the Plan. Some 173,300 hectares - about two thirds of the Region's total land area and about one-half of the region's developable lowland area -- were put forward by municipalities for inclusion in the Green Zone.

The designated lands include farmland in the Agricultural Land Reserve; publicly owned parkland; environmentally sensitive areas protected by federal, provincial or municipal regulations; and other lands put forward by municipalities. As Tomalty (2002, 431) notes, "the Region's goal of preserving extensive green areas has been achieved without being watered down during goal formulation or implementation… The real test of regional growth management will come in the near future when further expansion meets the green wall on the periphery and NIMBY resistance against densification within existing urban areas."

False Creek Brownfield Re-Development

The City of Vancouver is currently involved in a brownfield re-development of the Southeast False Creek area. False Creek's industrial fortunes had waned by the 1970s and the area is now a large brownfield site in a prime location for urban re-development. After initial plans to carry out standard urban development of the area (more condominiums, etc.), the community engaged and has driven the process to the point today where the Southeast False Creek Plan "will be the first Official plan for the city that illustrates the comprehensive application of sustainable strategies to a new high density mixed use neighborhood" (City of Vancouver 2004).

Sustainability has been used as the central theme to guide re-development, specifically "the efficient use of natural resources applied to flexible space planning and robust architectural design in order to reduce the environmental impacts of human habitation" (City of Vancouver 2004). The overall sustainability strategy has dealt with brownfield reclamation, transportation opportunities, energy and conservation, water, waste and urban agriculture. Key aspects here in moving planning and design to a sustainable perspective was integration and collaboration. The resulting empowerment built capacity and created social capital. The result will be a highly sustainable urban community.

5.2 The International Experience

5.2.1 The International Environmental Context

Green cities are understood to be of paramount importance to achieving global competitiveness. Addressing the environmental externalities of decades of sustained and rapid urban economic and population growth is well established in the planning and decision making systems of OECD countries. While major challenges remain, technological innovation, the de-industrialization of

the urban economy and enforcement of regulatory measures have all resulted in measurable improvements in the quality of air, water and soil in the major cities of North America, Europe, and Australia.

Urban regions in developing countries are at a very different stage of environmental sustainability. Air quality remains a growing concern in cities with an ongoing legacy of industrialization and a rapid rise in the use of private vehicles. Clean water and basic sanitation remain a benefit limited to a portion of the urban population. These urban regions face a massive struggle between raising standards of living while recognizing the serious limits on growth imposed by low environmental standards.

5.2.2 International Urban Environmental Issues

Environmental degradation, pollution and the impacts of rapid development are of critical importance to urban planners in both the North and South. As urban populations grow in size and wealth, so does the reliance on automobiles, congestion, pollution and resource consumption.

This places additional pressure on public transportation and the need for public space for pedestrians. Lack of sanitation, fresh water, drainage, roads and waste management characterize many urban areas in Southern cities. Urban sprawl continues to affect outlying natural areas; consuming agricultural land, affecting sensitive coastal zones and destroying habitat needed to sustain biodiversity. At a global scale, urbanization contributes to large-scale changes to global systems and cycles including climate change.

In the Caribbean, natural hazards are resulting in human disasters as a result of tropical storms, hurricanes, rain storms, droughts, earthquakes, and volcanoes. Urban areas in the Caribbean are particularly vulnerable to flooding due to inadequate capacity of drainage structures; changes to ecosystems through the replacement of natural and absorptive soil cover with concrete; and deforestation of hillsides, which has the effect of increasing the quantity and rate of runoff, and through soil erosion and the silting up of drainage channels. However, when faced with a disaster, Caribbean governments have been hard pressed to find the financial and other resources needed to rehabilitate social and economic infrastructure and restore full economic activity.

Rates of economic growth and urban development in China have been very high for two decades now, resulting in extraordinary pressures on urban areas and their hinterlands. Air pollution, water pollution and contaminated sites in urban centres are all typical features of China's cities and urbanizing regions. The highest rates of growth are now in the suburban and rural areas around the major cities. This, coupled with the nature of urban environmental problems, has created a need for strong regional planning; agricultural land has increasingly been used for urban development as the cities spread. In addition to contributing directly to health problems, and environmental degradation, sustained pollution within urban regions will also undermine city competitiveness.

5.2.3 Urban Planning Responses

The urban planning profession has taken on environmental challenges through a diverse set of legislative tools, methodologies and practices. Many of these are well established in countries in both the North and South, and include environmental assessment, Local Agenda 21, urban environmental management strategies, Urban Greening, Urban Agriculture, and Urban Development Boundaries.

The three examples of urban planning responses to environmental challenges included below highlight several important principles of planning. First among these is the principle of prevention presented in the example from the Caribbean: wherever possible, planning is about anticipating change, rather than simply reacting to it. Other important principles include the challenge of integrating diverse sectors into a single plan of action, supporting partnerships between responsible agencies needed to implement actions; and bringing stakeholders affected by change directly into the planning process.

Caribbean Hazard Mitigation Capacity Building Program

Caribbean governments have recently become involved in disaster preparedness and mitigation activities in response to the United Nations proclamation of the International Decade for Natural Disaster Reduction (1990-2000). The Caribbean Development Bank has called for the integration of disaster mitigation into development planning.

A regional disaster mitigation facility for the Caribbean is developing hazard management tools and practices and looking at all stages of the development cycle. A regional program is being implemented to strengthen the capability of the region's governments by means of developing comprehensive natural hazard vulnerability reduction initiatives through the development of national hazard mitigation policies, creation of appropriate policy implementation programs through comprehensive hazard mitigation frameworks and the development and implementation of safer building training and certification programs.

Portland, Oregon: New Urbanism and Livable Communities

The City of Portland has realized three major achievements in the last decade in the form of increasing public transit ridership faster than vehicle miles traveled; reducing land consumption rates below the rate of increases in population and preserving and enhancing agricultural production (Blumenbauer 2002). The success of these achievements is a result of planning strategies supported by political and legal frameworks at the municipal levels and continued public engagement and education (Blumenbauer 2002).

Portland's planning approach reflects the principles of New Urbanism and policies of Smart Growth. These envision "regions that are made of thriving neighborhoods, connected by efficient, effective transit, neighborhoods that feel alive, where people from all walks of life can cross each other's paths and meet their needs" (Fregonese 2002, 1). A wide range of planning goals guides the broad planning framework. The focus includes citizen involvement; land use planning; agricultural and forest lands; open spaces, scenic and historic areas to natural resources, economic development, housing and issues challenging coastal shorelines. This all-

inclusive planning framework indicates a concern for a broader spatial environment that extends beyond the urban core.

In the urban core user-friendly visible and accessible multi-use pathways and routes throughout the city connect parks and playgrounds. Houses are designed in mixed zoning areas therefore promoting neighborhoods that are diverse and hence culturally vibrant. Protecting the land on the urban edge is facilitated by the "Environmental–Overlay Zone" or, "e-zone". These e-zones are natural areas that follow streams, rivers, wetlands and forests and in some cases are historic sites, educational or cultural urban resources. Regionally, the 2040 Growth Concept designates particular areas in the region that can be utilized for growth and development, therefore limiting urban sprawl into neighbouring wetlands, forests and farmlands.

These boundaries are strictly upheld through the Urban Growth Management Functional Plan, which monitors indicators for growth targets, parking policies, employment and industrial areas, transport accessibility, housing affordability and water quality.

New Zealand: Action Biodiversity Community

Sustainability, resource protection and biodiversity management have been built into many planning processes. More specifically, urban planning has begun to foster plans for infill and redevelopment of town centers and along main streets. These responses aim to reduce automobile reliance, decrease emissions, stimulate the market for mixed-use development and increase the economic vitality of these key redevelopment initiatives.

International efforts to combat global climate change are an integral part of the planning practice in New Zealand. The Action Biodiversity Community (ABC) serves as a guide for planning alongside local resource diversity and preservation. It follows from the international mandate to effectively integrate climate protection and biodiversity management in to local government and local communities. ABC aims to build local consensus by bridging local and global planning actions that stretch the imagination, connect ideas, resources and poles that fit together.

ABC works to develop 'communities of practice' in various projects all over New Zealand, whereby citizens, professionals and experts can participate and contribute to the environmental preservation of their bio-community. ABC is run in partnership with local and central government to manage and plan lands typically outside of resource/conservations estates. The goal of the project is to build local capacity in biodiversity management — help local government build skills, knowledge, contacts and experience that can make a real difference in turning the tide of biodiversity loss.

Under the Local Government Act of 2002 all local governments are required to develop Long Term Council Community Plans (LTCCP). These plans require all local authorities to plan for, and respond to specific and measurable results in communities and their environments. The LTCCP is based on community outcomes identified every six years and is a prerequisite for local authority action.

5.3 Summary

The local contexts for achieving environmental sustainability vary tremendously between urban regions in OECD and developing countries. One important difference is the absence in many developing nations of effective institutional systems necessary to enforce a culture of good planning. Nevertheless, the response by planners in all cases relies on a common set of principles and tools that reflect the emergence and application of new governance models. These include the ability to communicate and work in partnership with a range of disciplines and stakeholders, from residents, to scientists, to senior government decision makers.

Equally important is the ability to understand the connection between environmental issues and the social and economic factors that drive and influence these. For example, transit and land use planning efforts in the Canadian cities of Ottawa, Toronto, Montreal and Vancouver have improved accessibility and mobility – important social goals - while supporting more sustainable forms of economic development. The same is true of large-scale, urban-based ecosystems such as the Don River reclamation project in Toronto, and the Greenbelt in the National Capital Region. These protected ecosystems are significant contributors to urban quality of life in all its dimensions. Finally, brownfields reclamation projects clearly address serious urban environmental problems while simultaneuously facilitating economic development and, in many cases, improving the supply of inner-city housing.

6.0 Conclusions and Future Directions

This survey of Canadian and international urban planning practice has identified areas of commonality as well as divergence in the complexity and scale of planning challenges, and the capacity to respond. We can draw several conclusions from this review of urban planning practices.

Urban Sustainability: Understood, but Elusive

It is clear that sustainability is a goal that is embraced and sought by cities in Canada and overseas. It is also clear that sustainability is an elusive goal for many cities, particularly in the developing world where basic needs must be met before contemplating true sustainability.

Similar Urban Sustainability Challenges

Cities around the world must contend with the local impacts of global economic trends, such as protectionism, free trade, and globalization generally. Social issues such as health, disease, literacy and safety are common to cities in Canada and overseas. Environmental issues such as potable water, waste management and air pollution are increasingly complex and require immediate attention.

The Issues and Solutions are Linked

The review demonstrates that social, economic and environmental issues and solutions are inextricably linked; it is not possible to address one to the exclusion of the others when planning cities. Issues and solutions are inter-connected and must be integrated. Further, political jurisdictions are usually quite arbitrary and have little relationship to ecosystem, societal or economic sustainability.

Beyond Government to Governance

We cannot rely on the public sector by itself to address these complex challenges. The advent of intra- and inter-sectoral partnerships and the application of their combined resources represent a realistic response to the sustainability challenges. Other forms of partnerships can include a range of disciplines and stakeholders, from residents, to scientists, to senior government decision makers. It should also be noted that communities – local governments and citizens - are setting the agenda and acting from the "bottom-up" to achieve home-grown urban sustainability solutions when senior governments cannot (or choose not to) act.

Capacity-Building is Essential

While the challenges are significant, many cities have made very substantial efforts to achieve urban sustainability. The principles of urban sustainability are well understood. What seems to be lacking is adequate resources and institutional capacity, including sustained political will and commitment. The local contexts for achieving environmental sustainability vary tremendously between urban regions in OECD and developing countries. One important issue is the absence

of effective institutional systems necessary to enforce a culture of good planning, especially in many cities in the developing world.

Collaboration, Empowerment and Integration

Finally, we can identify three over-arching themes associated with the response to planning and management by practitioners in Canada and internationally. Planning practice has made progress towards integration on three main fronts: 1) collaboration 2) empowerment through knowledge and 3) integrative planning: policy and implementation.

6.1 Collaboration

The cases and experienced discussed in this paper demonstrate that collaboration is a leading and rather fundamental trend when planning sustainable cities. We define collaboration in this context as having three related and complementary elements: partnerships and strategic alliances; participation; and consultation and outreach.

Partnerships and strategic alliances have arisen as a response to several issues associated with the inability of single agencies to cope with complex problems. Instead, it is understood that joint efforts hold the promise of synergies as well as more efficient and effective responses. The classic model has been that of the business experience, where partnerships and alliance are well-established. More recently, we see similar arrangements occurring between public sector agencies (e.g. Alberta municipalities), between public and private sector organizations, and between public, private and not-for-profit bodies coalescing around an issue of mutual interest. The possibilities and permutations are endless. The chances for success are high provided there are mutual benefits to be gained, and power and resources, as well as benefits, are equally shared among the partners.

Participation is a fundamental part of sustainability decision-making. In North America, there have been expectations of participation by the public in urban planning processes since the late 1960s. Most important, we see a decided shift away from technically-driven decision-making processes, to approaches that are more inclusive. Instead of elite-oriented processes, we see much more room for consultation and meaningful participation. This is a pattern that has evolved over the past 30-35 years in North America. Urban planning issues affect multiple publics with multiple and diverse interests and positions. Planning decision-making must respect and involve, in a meaningful fashion, these stakeholders. Enlightened planners understand that participation upstream in planning processes leads to better decisions supported by consensus.

There is a continuum of participation models and styles, starting at one end with processes that are essentially information sessions with minimal opportunity for meaningful participation by the public, to full and meaningful participation by the public at the other end of the continuum. Sustainability encourages something closer to the latter end of the continuum, on the assumption that a rich and robust dialogue with multiple stakeholders will enhance our understanding of complex urban issues, provide insights regarding solution possibilities, and generate buy-in to implementation decisions.

While this more advanced and inclusive model of participation is generally well-established in most of Canada, the United States and Western Europe, we see varying levels of participation in the developing world. This is a reflection of established cultural tradition and expectations as they are reflected in decision-making roles and powers. Generally speaking, a complete approach to sustainability implies that the community and its residents and stakeholders have the opportunity to make meaningful contributions to decision-making processes.

This takes us to the third and related point in this discussion: *consultation and outreach*. It is necessary but not sufficient to make opportunities available for stakeholders. Traditionally, urban planners have met statutory requirements to advertise a planning issue and hold a public meeting to discuss it. While meeting legislated requirements, this approach clearly falls short of meaningful consultation. This traditional strategy seems to have been replaced by more comprehensive consultation programs in response to expectations of accountability and transparency in government decision-making.

Further, we argue here that a more aggressive strategy is required to reach out to marginalized and disenfranchised members of our communities. These people may be immigrants with a limited command of the language; people who are afraid of, distrust or simply have no experience with authority figures, urban planning and sustainability planning; and people who are uncomfortable with or cannot easily access public consultation processes. Planners in Canada's large metropolitan, multi-cultural cities have years of experience in outreach programs that include multilingual staff and information published in several languages. The use of advanced communications tools, such as internet-based information and feedback sites, will improve consultation processes. Other complementary strategies can include facilitated workshops, design charrettes, visioning exercises, advisory committees, and joint community-city task forces on sustainability issues.

While these are important and valid responses, the real challenge lies in establishing and maintaining a continuous relationship based on trust and mutual respect and mutual learning between planners and diverse publics – transactive planning, as Friedmann (1973) would call it, shared decision-making and collaborative planning, as Healey (1998) terms this process. Urban planners need to avoid episodic contacts with stakeholders that are project-based. Instead, we call for a sustained community presence through kitchen meetings, neighbourhood site offices, and "walking the beat" by planners.

6.2 Empowerment through Knowledge

In the previous sub-section, we established the need for meaningful participation in urban sustainability planning activities. Here, we explore how planners and stakeholders – indeed, anybody with an interest in urban sustainability – can become empowered. The key to empowerment lies in enhanced access to and use of information. We consider empowerment through knowledge generated and communicated by three means: use of new technology, research, and monitoring and evaluation.

New technologies, particularly the internet, have been used as important tools for outreach, education, receiving community feedback on planning issues and proposals, and for researching

urban trends. Technology has also been an important component of tracking and managing data through database software, geo-referenced analytical systems such as GIS, and automated permitting systems, to name a few. These tools are empowering because they provide wide, fast and generally unobstructed access to information sources. If managed properly, information consumers can become knowledgeable citizens and thus better equipped to challenge, as well support, urban sustainability planning initiatives.

There is rarely a lack of information on sustainability and urban planning matters generally. However, there are issues of equity of access to the technology that must be addressed; contrary to conventional wisdom, we are not all wired to the internet. Many community residents cannot afford or lack the levels of literacy required to use these advanced information technologies. We therefore must address the bifurcation between the information technology "haves and have-nots" in our communities. Further, while there is plenty of information, there is a need to selectively interpret, order and place into context this information. There is also the very real problem of misinformation leading to misunderstandings, faulty assumptions, and inappropriate decisions. Clearly, research programs are enhanced by information-supportive technologies. Urban planners can scan reams of information, reports and data with minimal cost or time delays. Planners and stakeholders can access information on best practices, innovations, and problems encountered when planning sustainable communities. Information can be exchanged, and the knowledge base enhanced through continuing research efforts that build upon related work.

Finally, we see increased interest in *monitoring and evaluation* of urban sustainability efforts. Monitoring refers to the regular and continuous tracking of trends and patterns that are based on a foundation of indicators – quantitative data and qualitative information. Evaluation comprises the assessment and analysis of these trends with the intent of determining progress (or otherwise) in policy, program or project activities. Cities want to know whether and how sustainable their development is. Sustainability reporting has received considerable attention over the past decade with models developed by Canada Mortgage and Housing Corporation, in association with Environment Canada (Sustainable Communities Indicators Program), the Federation of Canadian Municipalities' Quality of Life Reporting System, and the path-breaking research by Maclaren (1996a, 1996b) on sustainability indicators. At the municipal level, we see innovative work in Canadian cities such as Hamilton (Vision 2020), Calgary, Edmonton and Vancouver. The challenge is to integrate monitoring and evaluation processes as fundamental elements of sustainable urban planning.

6.3 Integrated Planning

This takes us to the third part of the urban sustainability planning triad: integrated planning. In this paper, we have demonstrated that sustainability cannot be dealt with in a piece-meal fashion. Sustainable urban planning requires multi-pronged approaches that are based on an understanding of the complex and dynamic inter-relationships between social, economic and environmental systems.

Planners have made progress towards integrated planning in several ways. Starting with problem definition, as evidenced in approaches to housing and homelessness, brownfield site development and land use intensification, planners define problems in terms that simultaneously address more than one issue. By defining the problem in such as way that recognizes the inter-sectoral relationships between the factors contributing to the problem, solutions are more easily crafted in ways that simultaneously address different factors. The Province of Ontario, City of Cambridge, and cities of Vancouver, Montreal and Quebec City are leaders in this regard.

For example, the traditional approach to homelessness that only addresses emergency food and shelter provision has been grossly inadequate. However, by considering the economic factors at play in the provision of affordable housing, an effective homelessness planning strategies includes both social and economic supports for the homeless and economic and policy tools and incentives to develop physical affordable housing infrastructure. The examples from Saskatoon and Winnipeg come to mind here.

Integrated planning in this context also calls for the coordination and of different disciplines, professions, and organizations. As the cases in this paper demonstrate, the individual and cumulative impacts of economic, societal and environmental issues require collaboration and meaningful integration of efforts. This can be supported through organizational structures such as project-based teams, staff secondments and exchanges, and cross-appointments among organizations. Examples here include the Integrated Development Plan (IDP) from South Africa, the Integrated Urban Community Planning and Development Project in Port of Spain, Trinidad, watershed planning in Ontario, and the Vancouver Region Growth management initiative, among many others.

Further, integrated planning means ensuring that sustainability issues, in all their complexity and richness, are considered at the outset of planning and decision-making processes. This trend has already been introduced through the discussion of the definition of "environment."

Environment, in some planning and management processes, is now defined to include the biophysical, social and economic elements, thereby allowing for conceptual integration. This has been achieved by "up-streaming" or moving consideration of environmental matters earlier in the decision-making process. Public involvement processes are also being implemented earlier and throughout the planning and management processes. This ensures that integration has a better chance of occurring through early consideration of alternatives and before decisions are made and become entrenched.

Recent conceptual developments around sustainability illustrate this move toward integration. Gibson (2000) has developed seven principles of sustainability to guide practical applications. These include: integrity, sufficiency and opportunity, efficiency, democracy and civility, precaution and long-term integration. The Sustainable Europe project uses a model that "defines sustainability as consisting of four dimensions: social, economic, environmental and institutional (institutional includes not only organizations but also mechanisms and orientations). This is described as the prism of sustainability" (Spangenberg 2004).

Finally, we note that urban planners have started to make the critical transition from thinking about sustainability, to implementation and action. Planners are learning about sustainability by

facilitating, monitoring and evaluating policies, programs and projects that bring the concept of sustainability to life. They are learning through experimentation.

6.4 Findings

In this paper, we have identified the importance of three themes when considering and acting upon urban sustainability: collaboration, empowerment and integration. We turn now to what requires attention to support sustainability.

Collaboration

- Identify and make room for stakeholders with an interest in, and whose interests may be affected by, urban sustainability planning

- Establish and maintain partnerships and strategic alliances, on a multi-sectoral basis, to address complex sustainability challenges

- Create and implement, on a consistent basis, consultation programs that provide opportunities for meaningful participation in decision-making processes

- Reach out to community stakeholders who are marginalized or disenfranchised, yet have perspectives to offer and information to share about planning issues

Empowerment

- Make communications technologies easily accessible to community stakeholders

- Make research findings more accessible and easily exchanged. For example, national statistical data should be more affordable

- Educate and orient stakeholders and decision-makers about the concepts of sustainability and sustainable urbanization

- Integrate monitoring and evaluation as a fundamental part of sustainability decision-making processes

Integration

- Acknowledge the inter-relationships that exist between economic, societal, environmental and institutional variables

- Incorporate sustainability issues and objectives upstream in decision-making processes

- Further efforts to research inter-relationships to better understand agents, mechanisms and processes that work

- Design organizational structures to facilitate integration of different disciplines, professions, and actors.

7.0 References

Access Calgary 2004. *Access Calgary* [On-line]. Calgary: Access Calgary. Retrieved from World Wide Web March 20, 2004: (http://www.accesscalgary.ca/)

Andrew, C. and Morrison, J. 2002. Infrastructure. In *Urban policy issues: Canadian perspectives. 2nd edition*. eds. E. P. Fowler and D. Siegel. Toronto: Oxford University Press.

Armstrong, R. 2002. Reurbanisation in Perth: East Perth and Subico contributing to a growing trend towards a more sustainable Perth. *State Sustainability Strategy*. Perth, Western Australia: Western Australia Government.

Armstrong, R. 2002. *Livable neighborhoods: Guiding new developments for a more sustainable urban future*. Sustainability Strategy, Western Australia Government.

Austin, Carol, David Flux, Laura Ghali, Debra Hartley, Dan Holinda, Robert McClelland, Jackie Sieppert, and Timothy Wild. 2001. *A place to call home: Final report of the elder friendly communities report*. Calgary, Alberta: Seniors Division, Family and Community Support Services, City of Calgary.

Bourne, L.S. 2000. Urban Canada in transition to the twenty-first century: trends, issues and visions. In *Canadian cities in transition: The twenty-first century*. 2nd Edition. eds. T. E. Bunting and P. Filion. Toronto: Oxford University Press

Bourne, L. & Rose, D. 2001. The changing face of Canada: The uneven geographies of population and social change. *The Canadian Geographer*, 45:105-120.

Bourne, L.S. 2004. *Beyond the new deal for cities: Confronting the challenges of uneven urban growth*. Research Bulletin #21. Toronto: Centre for Urban and Community Studies, University of Toronto

Blumenbauer, E. 2000. Portland: Ground zero in the livable communities debate. *The politics of place*. [On-line] Chicago: Congress of New Urbanism. Retrieved from the World Wide Web on March 20, 2004. (www.cnu.org)

Canadian Broadcasting Corporation. 2002. *Air pollution a significant health risk for Canadians*. [On-line]. Toronto: Canadian Broadcasting Corporation. Retrieved from the World Wide Web on March 29, 2004 (http://www.cbc.ca/stories/2002/06/07/consumers/smog_020607).

Canada Mortgage and Housing Corporation (CMHC). 2003. *Residential intensification. Case studies: Municipal initiatives* [On-line] Ottawa: Canada Mortgage and Housing Corporation. Retrieved from the World Wide Web on March 30, 2003. (http://www.cmhc-schl.gc.ca/en/imquaf/hehosu/sucopl/sucopl_004.cfm)

Canada Mortgage and Housing Corporation (CMHC). 2003. Urban Contaminated Sites Rehabilitation Program-Revi-Sols', *Residential intensification. Case studies: Municipal initiatives* [On-line] Ottawa: Canada Mortgage and Housing Corporation. Retrieved from the World Wide Web on March 30, 2003. (http://www.cmhc-schl.gc.ca/en/imquaf/hehosu/sucopl/sucopl_004.cfm)

Canada Mortgage and Housing Corporation (CMHC), Federation of Canadian Municipalities (FCM), Canadian Home Builders' Association (CHBA), & Canadian Housing and Renewal Association (CHRA). 2004. *Affordability and choice today* [On-line]. Ottawa: Canada Mortgage and Housing Corporation. Retrieved from the World Wide Web on March 20, 2004. (http://www.landcentre.ca/lcframeweb.cfm?ID=3282).

City of Kingston. 2004. *City of Kingston Housing Division*. [On-line] Kingston: City of Kingston. Retrieved from the World Wide Web on March 18, 2004. (http://www.cityofkingston.ca/residents/housing/).

City of Montréal. 2003. *Plan d'urbanisme de Montréal: concours d'idées du plan d'urbanisme – synthèse des résultats*, Service du développement économique et du développement urbain, Direction du développement urbain, Division des politiques et du Plan d'urbanisme. Montréal: City of Montréal.

City of Richmond. 2002. *Affordable seniors' supportive housing design guidelines*. Richmond: City of Richmond.

City of Toronto.1999. *Building a city for all ages: final report of the seniors' task force* Toronto: City of Toronto.

City of Toronto. 2003. *Toronto report card on housing and homelessness 2003* Toronto: City of Toronto.

City of Vancouver. 2004. Southeast False Creek ODP Supplement. [On-line] Vancouver, B.C. City of Vancouver. Retrieved from the World Wide Web on April 18, 2004. (http://www.city.vancouver.bc.ca/commsvcs/southeast/documents/Feb21commentsheetanalysis.pdf)

City of Victoria. 2004. *Homelessness initiative*. [On-line]. Victoria, British Columbia: City of Victoria. Retrieved from the World Wide Web on March 20, 2004. (http://www.city.victoria.bc.ca/cityhall/currentprojects_homelessness.html).

City of Winnipeg. 2003. *First steps: municipal aboriginal pathways*. Winnipeg: City of Winnipeg.

Dillon Consulting & The Corporation of the City of Windsor (2003). *Accessibility study for the City of Windsor*. Windsor: Dillon Consulting and the Corporation of the City of Windsor.

Douglas, D.J.A. 1994. *Community economic development in Canada. Volume One.* Toronto: McGraw-Hill Ryerson

Draper, D. 2002. *Our environment: a Canadian perspective. 2nd edition*. Scarborough, ON: Nelson Thomson

Enyedi, G. 2002. Social sustainability of large cities. *Ekistics*, 412:142-144.

Federation of Canadian Municipalities. 2000. *A national affordable housing strategy*. Ottawa: Federation of Canadian Municipalities.

Federation of Canadian Municipalities & Arundel, C. 2003. *Falling behind: our growing income gap*. Ottawa: Federation of Canadian Municipalities.

Fowler, E.P. and Hartmann, F. 2002. City environmental policy: connecting the dots. In *Urban policy issues: Canadian perspectives. 2nd Edition*, eds. E. P. Fowler and D. Siegel. Toronto: Oxford University Press.

Fregonese, J., L. Peterson and C. Nelson. 2002. C*orrecting the record: Comparing development policy in Portland, Oregon and Atlanta, Georgia*. [On-line] Chicago: Congress of New Urbanism. Retrieved from the World Wide Web on March 20, 2004. (www.cnu.org)

Friedman, A. 2001. *The grow home*. Toronto: McGill-Queen's University Press

Friedmann, J. 1973. *Retracking America: a theory of transactive planning*. Garden City, NJ: Doubleday-Anchor

Gibson, R.B. 2000. *Specification of sustainability-based environmental assessment decision criteria and implications for determining "significance" in environmental assessment*, Canadian Environmental Assessment Agency Research and Development Monograph Series. Ottawa: Canadian Environmental Assessment Agency.

Government of British Columbia. 1999. *Supportive housing for seniors: a policy and bylaw guide.* Victoria: Ministry of Municipal Affairs, Government of British Columbia.

Government of West Australia. n.d. Livable neighborhoods: Guiding new developments for a more sustainable urban future. [On-line] Perth, Western Australia: Western Australia Government. Retrieved from the World Wide Web on March 18, 2004. (www.sustainability.dpc.wa.gov.au).

Grant, J. 2000. Planning Canadian cities: context, continuity and change. In *Canadian cities in transition: The twenty-first century. 2nd edition*, eds. T. Bunting and P. Filion. Toronto: Oxford University Press.

Gullison, L. 2004. *Quantifying universal design: a program for implementation.* Ottawa: Canada Mortgage and Housing Corporation.

Healey, P. 1998. *Building institutional capacity through collaborative approaches to urban planning*. Environment and Planning A. 30:1531-1546.

Hulchanski, D. n.d. *Homelessness in Canada*. [On-Line]. Toronto: Raising the Roof. Retrieved from the World Wide Web on March 15, 2004. (http://www.raisingtheroof.org/lrn-home-QandA-index.cfm).

Hunsley, T. 1999. Canada: Experience and lessons for the future. In *Reforming social policy: Changing perspectives on sustainable human development*, eds. D. Morales-Gómez, J. Moher, and N. Tschirgi. Ottawa: International Development and Research Centre.

International Council for Local Environmental Initiatives (ICLEI). 2002. *Cities for Climate Protection Campaign. Case Study 84*. Johannesburg. South Africa.

Kitchen, H. and Slack, E. 2004. Special study: New finance options for Canadian municipalities. *Canadian Tax Journal*. 51(6):2216-2277

Lee, J. 2002. *Visioning diversity: Planning Vancouver's multicultural communities*. Unpublished thesis. Waterloo, Ontario: School of Planning. University of Waterloo.

Lee, K. 2000. *Urban poverty in Canada: A statistical profile*. Ottawa: Canadian Council on Social Development.

Liverpool City Council. 2002. *Liverpool City Council Corporate Housing Strategy 2003-2006*. [On-line] Liverpool, U.K.: Liverpool City Council. Retrieved from the World Wide Web on February, 18, 2004 (http://www.liverpool.gov.uk).

Liverpool City Council. 2002. *Key challenges: What the key issues are*. [On-line] Liverpool, U.K.: Liverpool City Council. Retrieved from the World Wide Web on February, 18, 2004 (http://www.liverpool.gov.uk).

Liverpool City Council. 2002. *Neighborhood renewal strategy*. [On-line] Liverpool, U.K.: Liverpool City Council. Retrieved from the World Wide Web on February, 18, 2004 (http://www.liverpool.gov.uk).

Maclaren, V. 1996a. *Developing indicators of urban sustainability: A focus on the Canadian experience*. Toronto: Intergovernmental Committee on Urban and Regional Research.

Maclaren, V. 1996b. Urban Sustainability Reporting. *Journal of American Planning Association*, 62:184-202.

Metropolitan Action Committee on Violence Against Women and Children. 2004. *Metropolitan Action Committee on Violence Against Women and Children*. [On-line] Toronto: Metropolitan Action Committee on Violence Against Women and Children. Retrieved from the World Wide Web on March 18, 2004. (http://www.metrac.org/).

Ministry of Municipal Affairs. 2000. *Brownfields showcase*. Toronto: Government of Ontario

National Round Table on the Environment and the Economy (NRTEE). 2003. *Cleaning up the past, building the future: A national brownfield redevelopment strategy for Canada*. [On-line] Ottawa: NRTEE. Retrieved from the World Wide Web on March 29, 2004. http://www.nrtee-trnee.ca/eng/programs/Current_Programs/Brownfields_Strategy/SOD_Brownfields-Strategy/SOD_Brownfield-Strategy_E.pdf

National Round Table on the Environment and the Economy (NRTEE). 2003a. *State of the debate. Environmental quality in Canadian cities: the federal role* [On-line]. Ottawa: NRTEE. Retrieved from the World Wide Web on March 29, 2004. www.nrtee-trnee.ca/eng/programs/Current_Programs/Urban_Sustainability/Urban-SOD-Report/Urban_SOD_English.pdf

Nelson, J.G. 2003. Rural sustainability in Canada and elsewhere: A historic and civics perspective. *Environments*, 31(2):73-98.

Olson, S. 2000. Form and energy in the urban built environment. In *Canadian Cities in Transition: The Twenty-First Century*. 2nd Edition. eds. T. E. Bunting and P. Filion. Toronto: Oxford University Press.

Organisation for Economic Co-operation and Development (OECD). 2003. OECD Territorial Review of Montreal. *OECD Observer*. Paris: OECD.

Ordre des urbanistes du Québec. 2003. *Urbanité*, 2(2): 49-52.

Price, T. 2002. Sustainable cities. In *Urban policy issues: Canadian perspectives. 2nd edition*, eds. E. P. Fowler and D. Siegel. Toronto: Oxford University Press.

Prince, J. 2002. *Reclaiming our streets: Pedestrian initiatives in Perth*. Perth, Western Australia: Western Australia Government.

Rahman, G. and S. Tariquzzaman. n.d. *Squatter Settlement On The Flood Protection Embankment In Dhaka City*. Department of Urban and Regional Planning. Bangladesh University of Engineering and Technology.

Roseland, M. 1998. *Toward sustainable communities: Resources for Canadians and their governments*. Gabriola Island, B.C.: New Society Publishers

Safer Calgary. 2000. *Safety in numbers: Calgary's safety measurement indicators report for 2000*. Calgary: Safer Calgary.

Saskatoon Housing Initiative Partnership. 2004. *Saskatoon community plan for homelessness and housing: 2003 update*. [On-line] Saskatoon, Saskatchewan: Saskatoon Housing Initiative Partnership. Retrieved from the World Wide Web on March 19, 2004. (http://www.shipweb.org/index.html) .

Scott, K., Smith, P., & Ross, D. 2000. *The Canadian fact book on poverty*. Ottawa: Canadian Council on Social Development.

Seidle, F. L. 2002. T*he federal role in Canada's cities: Overview of issues and proposed actions*. Ottawa:Canadian Policy Research Networks.

Senecal, G.; Annick, G. and Bénard, J. 2002. Portrait des pratiques communautaires et locales en revitalisation urbaine et sociale sur le territoire de l'ile de Montréal'. INRS-Urbanisation, Culture et Société and the Centre d'Intervention pour la Revitalisation des Quartiers (CIRQ).

Smith, P.J. 2000. Suburbs. In *Canadian cities in transition. 2nd edition*, eds. T. Bunting and P. Filion. Toronto: Oxford University Press

Spangenberg, J. 2004. Friends of the Earth Europe. Web Site viewed April 2, 2004, www.foeeurope.org/sustainability/sustain/t-content-prism.htm

Springer, Sabine. 2000. Homelessness: a proposal for a global definition and classification. *Habitat International* 24:475-484

Statistics Canada. 2003a. *Aboriginal peoples of Canada: a demographic profile*. Ottawa: Statistics Canada.

Statistics Canada. 2003b. *Canada's ethno-cultural portrait: the changing mosaic*. Ottawa: Statistics Canada.

Statistics Canada. 2002. *A profile of the Canadian population: where we live*. Ottawa: Statistics Canada.

Stren, R. & Polèse, M. 2000. Understanding the new sociocultural dynamics of cities: comparative urban policy in a global context. In *The social sustainability of cities: diversity and the management of change*, eds. M. Polèse and R. Stren. Toronto: University of Toronto Press.

Tomalty, R. 2003. *Residential intensification case studies: Municipal initiatives*. Socio-economic series 04-002. Ottawa: Canada Mortgage and Housing Corporation

Tomlinson, R. 2001. Housing policy in a context of HIV/AIDS and globalization. *International Journal of Urban and Regional Research* 25(3):649 - 657.

Tyler, M.E. 2000. The ecological restructuring of urban form. In Canadian cities in transition. 2nd edition. In *Canadian cities in transition.2nd. edition*, eds. T. Bunting and P. Filion. Toronto: Oxford University Press

United Nations Commission for Sustainable Development, 1987. *Our common future*. New York: United Nations

UN Earth Summit +5. 1995. Success stories from Bangladesh: Urban squatters resettlement project: Rehabilitation and community support and services to the urban poor. New York: UN Earth Summit +5.

Wake Carroll, B. 2002. Housing policy in the new millennium: the uncompassionate landscape. In *Urban policy issues: Canadian perspectives. 2nd Edition*, eds. E. P. Fowler and D. Siegel. Toronto: Oxford University Press.

Windsor Accessibility Advisory Committee. 2003. *WAAC news*. Windsor: Windsor Accessibility Advisory Committee.