RESEARCH HIGHLIGHT

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SMART GROWTH IN CANADA: A REPORT CARD

SMART GROWTH

Recently, a broad consensus has emerged concerning the growth and development of Canadian cities: our cities, as they have grown over the last 60 years, are contributing significantly to global and regional environmental problems, government deficits, and social inequity. In order to be sustainable, cities should alter their development patterns so as to be more compact, diverse in local/district land uses, with well-defined urban boundaries and clear internal structures.

Such changes in the way our cities grow are advocated by "Smart Growth," a recent, broad-based movement. Smart Growth refers to land use and development practices that limit costly urban sprawl, use tax dollars more efficiently and create more livable communities.

Although Smart Growth as a term is relatively new, the concept behind the rubric is not. In fact, the idea of managing urban growth to reduce environmental impacts, make cities more efficient to build and maintain and more socially inclusive is almost as old as urban planning itself. The assumption behind this study is that Canadian experience with growth management over the last two or three decades could help guide implementation of the Smart Growth concept. More specifically, answers were sought to the following questions:

- Which cities in Canada have made genuine efforts to manage growth so as to alter their development patterns in a fundamental way?
- What successes have these cities experienced and where have they failed?

This study has shown that there is a large gap between the stated growth management policies found in the planning documents of the six study regions and accomplishments on the ground. While major progress has been made in terms of language and policy goals, performance is lagging behind considerably.

- What are the reasons behind both successes and failures?
- And what are the lessons we can draw for the viability of Smart Growth in the Canadian context?

METHODOLOGY

In order to address the above questions, six urban areas were selected from six provinces and of various population sizes. The chozen areas were Census Metropolitan Areas or highly integrated urban regions. All six regions have instituted growth management policies over the long term. Table 1 illustrates the time period considered for each study region.

Study Region	Time Period
Halifax	1975–2005
Montréal	1978–2005
Toronto	1990–2005
Saskatoon	1990–2005
Calgary	1995–2005
Vancouver	1990–2005

Table 1: Study regions and time periods

The study identified each region's stated growth management goals, evaluated how well those goals were achieved in practice, and identified factors that might help to explain successes and failures. In an effort to use a consistent framework to analyze policies and outcomes in all six regions, the following "indicators" of Smart Growth were used to structure the research and the final report

- denser, mixed-use development in greenfield areas
- intensify the existing fabric to moderate greenfield development
- take advantage of specific intensification opportunities
- increase transportation choice and reduce car usage
- increase supply of new affordable housing
- improve range of housing types
- preserve agricultural lands
- preserve lands essential to maintaining regional ecosystem functions
- direct employment to strengthen the core and designated sub-centres; and
- provide infrastructure to reduce ecological impacts of development

For many of these indicators, quantitative data collected in a consistent manner across all urban regions do not exist in Canada. Consequently, this analysis is based partly on quantitative and partly on qualitative data (interviews with planners, academic literature, etc.).

FINDINGS

Denser, mixed-use development in greenfield areas

Of all the indicators used in this study, density and mixed-use are among the most important from a Smart Growth perspective. These factors reduce the per capita consumption of land, lower infrastructure costs per unit, reduce trip lengths, make transit more viable, increase walkability and may help preserve natural assets.

Until recently, greenfield development occurred at ever-decreasing densities, resulting in a thinning out of the urban fabric. There is some evidence, however, that the density of greenfield development has been increasing moderately in some regions (Vancouver, Toronto, Montréal, and Calgary) over the last decade or so (typically, from six units per acre to seven or eight units per acre). This reflects the tendency towards reduced average lot sizes in new subdivisions, driven more by increasing land values than by specific planning policies. In some cases, though, (Vancouver, Montréal, Halifax), small-lot zoning is helping to encourage smaller lots in specific locations.

While this trend is welcome, suburban densities in most areas of the study regions continued to fall far short of the levels needed to support high quality transit services (12 upa). Furthermore, some of the density boost from lot-size shrinkage is being countered by an increasing amount of land being put aside for public purposes (such as stormwater management) and by declining household sizes.

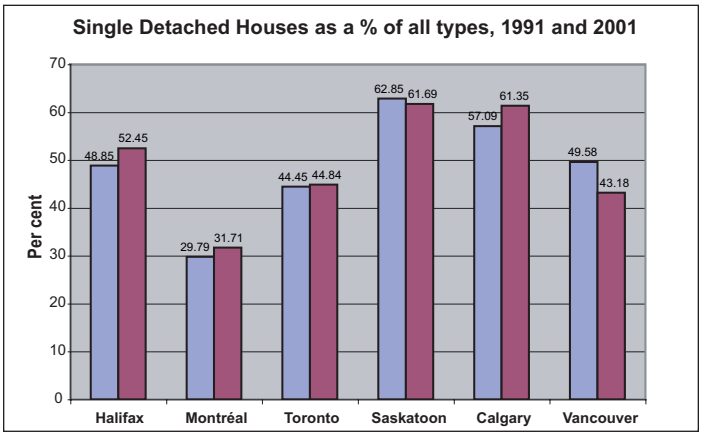

Chart 1: Single-Detached Houses as a per cent of all Housing Types (1991 and 2001)

Source: Calculated from Canadian Census Data

There is little in the way of mixed use development occurring in greenfield areas. Developers appear convinced that retail uses will not be commercially successful and that homebuyers will want to avoid being adjacent to non-residential uses.

Several municipalities in the study regions (Halifax, Calgary, Toronto, Saskatoon) are equipped with design guidelines to encourage greenfield development that would be more supportive of transit and of other growth management objectives. Implementation of these urban design policies has been poor. Most greenfield growth continues in the post-war pattern of homogeneous, lower-density residential areas on circuitous streets that are difficult to navigate by transit or by walking. Key barriers to change include local regulations that prevent innovative forms of development and the way development charges are calculated. Consumer preference for single-detached houses is also a decisive factor.

The case studies revealed specific exceptions to this rule in most regions (Halifax, Montréal, Toronto, Calgary, Vancouver), where individual neighbourhoods could be found that were designed using New Urbanist principles or alternative development standards. At the moment there is no evidence that travel behaviour is much different in these settings than in conventional suburban development.

Intensify the existing fabric to moderate greenfield development

Many inner cities are serviced to accommodate much larger populations and therefore existing infrastructure is not being put to optimal use. Moreover, greenfield growth on the urban fringe is expensive to service, eats up agricultural, recreational or ecologically significant lands, and deepens car dependency.

Limited intensification is occurring in most jurisdictions. Most study regions have seen the populations of their central cities increase significantly after periods of decline in the 1970s and 1980s. The City of Vancouver has been particularly successful at accepting new growth in older urbanized areas. However, despite this relative success, the Vancouver Region as a whole has not been able to meet its target for the amount of growth to be accommodated within the designated areas in and around the metropolitan core. In Toronto, the target for intensifying the former Metro Toronto, now the City of Toronto, has been surpassed, although it should be mentioned that the target was much lower than in Vancouver (only 40 per cent of Toronto region growth to be located in the former Metro compared to 70 per cent in the Vancouver region's growth concentration areas).

In other regions, success at meeting the goal of increasing populations in already serviced areas is being undermined by declining household sizes. For example, Calgary set a goal of accommodating 10 per cent of its population growth through intensification and, indeed, 16 per cent of new housing has been located in the already established areas, but population levels are stagnant. Until recently, the story was much the same on the Halifax Peninsula, where populations declined despite intensification activity.

Most intensification is taking place in downtowns and inner cities. Little intensification is evident in most suburban areas outside central cities, where the great majority of urban growth is found. The one exception is the GVRD where suburban municipalities are seeing considerable intensification in addition to greenfield development.

Take advantage of intensification opportunities

The limited intensification documented in the preceding indicator is occurring through a wide range of processes.

The conversion of industrial lands in older urbanized areas is a major source of intensification opportunity in most of the study regions, i.e., Vancouver, Toronto, Montréal and Halifax. Brownfield sites have proved to be excellent opportunities for mixed-use, higher density development in older areas of the city already well-served by urban infrastructure. Regulations governing brownfield decontamination have been updated in some provinces/urban regions to promote brownfield redevelopment and some cities are concentrating planning resources (e.g., conducting inventories of brownfield sites) to encourage the redevelopment of these urban lands to their maximum potential. The cost of decontaminating sites is the major impediment to this type of intensification. Montréal is the only urban region studied that has access to a provincial funding program to help with decontamination costs.

Although less significant than brownfield redevelopment, intensification along arterial streets is also happening to some extent in Vancouver, Toronto and Halifax. Infill development is occurring in all of the study regions.

Some municipalities (Calgary, Saskatoon, Halifax) have changed zoning regulations to allow small-lot infill in specific areas, especially older areas of town. Infill development is also taking place on disused parking lots, gas stations, and other small parcels of urban land. Infill development that threatens to significantly alter neighbourhood character (i.e., through density increases) is strongly resisted by local residents. Other forms of intensification in the study regions include the redevelopment of public lands, including defunct hospital sites, military bases and schools.

Intensification can contribute to the emergence or strengthening of a distinct urban structure. Much intensification activity is in and around downtown areas, where it contributes to the strength of the metropolitan core as a population and economic centre. Outside the downtown, however, it seems that only in Vancouver and to a lesser extent in Toronto is intensification activity contributing to the strengthening of a system of urban nodes.

Picture 1: In-City Transportation

Increase transportation choice and reduce car usage

Reducing car use and its impact on the environment (greenhouse gases, run-off pollution), health (noxious gases, noise and obesity) and quality of life (noise, risk, heat islands, asphalt prevalence and long trips) is a cornerstone of the Smart Growth movement.

Every region studied had adopted a transportation plan based on the need to move away from car dependency and create a more balanced transportation system. Despite this planning effort, four (Vancouver, Saskatoon, Toronto, Halifax) of the six study regions saw an increase in the car's modal share. In Calgary and Montréal, where major improvements to transit services were made, auto shares declined and transit shares improved.

Where sub-regional data were available, it was found that transit modal share was higher for downtown trips but extremely low for trips in suburban locations. This suggests that the decentralization of employment, in combination with suburban residential growth, will further erode transit share unless dramatic measures are taken to counteract these trends.

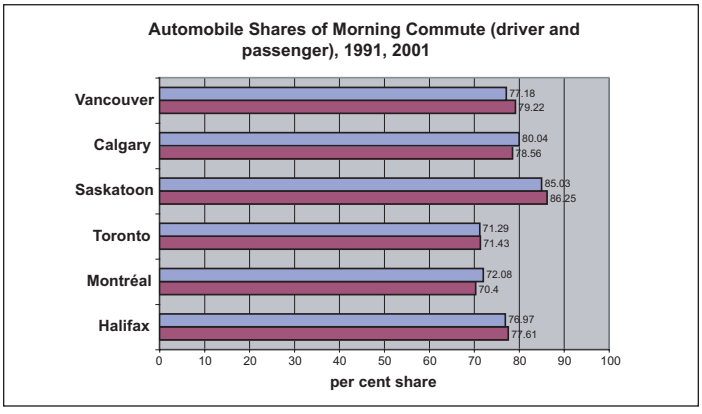

Chart 2: Automobile (driver and passenger) shares of morning commute, 1991 and 2001

Source: Census, 1991 and 2001.

Picture 2: Affordable housing

Increase supply of new affordable housing

A Smart Growth agenda encourages the production of affordable housing by promoting intensification and infill and through regulatory and financial measures to attract housing developers to appropriate locations within the already urbanized areas.

Planning frameworks in all six regions contain policies encouraging the creation of more affordable housing. However, few have made major progress towards these goals, either through the private housing market or through public investment. In most cases, market prices and rents have been increasing while the social housing supply has been stagnant since federal and most provincial subsidies for new social housing were eliminated in the early 1990s. Montréal is the only study region that witnessed a significant improvement in housing affordability over the 1991-to-2001 period.

While housing costs are influenced by a wide variety of exogenous factors, local governments can add to housing affordability problems by having too little land zoned for multi-family and small-lot housing; imposing zoning restrictions on manufactured and mobile housing, group homes, secondary suites and rooming houses; and, adopting planning policies that prevent change towards higher density urban forms.

Improve range of housing types

A wider range of housing types is essential for achieving affordability goals, creating more socially inclusive communities, and providing appropriate housing near employment opportunities.

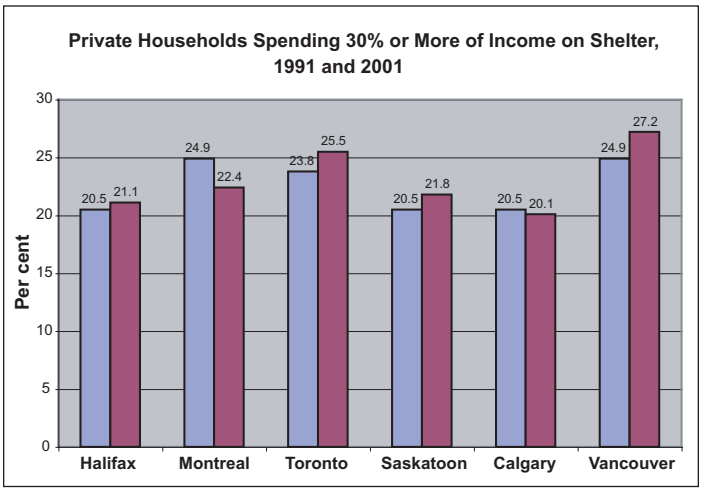

Chart 3: Private Households Spending 30 per cent or More of Income on Shelter (1991 and 2001)

Source: CMHC Research Highlights Socio-economic Series 03-017

Although all six study regions had adopted plans and policies to encourage the creation of a wider range of housing types, most regions in fact saw an evolution in the opposite direction between 1991 and 2001. Only Vancouver saw a significant reduction in the weight of single-detached housing in its housing stock.

Preserve agricultural lands

Preserving agricultural land on the edge of urban areas is important as a way of stemming the spread of urbanization and deflecting growth energy back into the city.

Trends on this indicator varied over the six study regions. In three cases—Halifax, Saskatoon and Calgary—conversion of agricultural land to urban purposes is of little concern because of the absence of good quality soils or the immensity of the resource at hand. In the other three cases—Vancouver, Montréal and Toronto—there is a constant tug of war between farmland preservation and urbanization. Vancouver and Montréal are equipped with systems of provincially-sponsored agricultural preservation while Toronto is not. Not surprisingly, the rate of farmland loss appears much lower in Vancouver and Montréal than Toronto. In Vancouver, there was a net loss of farmland of 225 ha from 1996 to 2004, whereas Toronto lost 445 km^2 of farmland to urbanization between 1986 and 2001. In Montréal, withdrawals from the reserve since 1991 (when a major removal was authorized) have totalled only 463 ha.

Preserve lands essential to maintaining regional ecosystem functions

All six cases report loss of natural assets to varying degrees. In the absence of any cross-regional studies surveying actual changes in land cover or water quality, little can be said in terms of relative levels of damage. Each region has its unique challenges and accomplishments. In Toronto, for example, wetland destruction appears to have come to a halt in the 1990s (although by then most of the original wetland areas in the region had been lost) and threatened species habitat is now well protected. On the other hand, woodlands and other types of habitat areas are not well protected and continue to succumb to urbanization.

By contrast, in Calgary, wetlands and ravines have not been well protected and the spread of the city has resulted in most of these being filled in, with resulting water quality problems. The park system in Calgary, however, provides an interconnected system of semi-natural areas. In Montréal, the park system is fragmented and shorelines are largely developed in the heavily urbanized areas. In Saskatoon, river shorelines have been protected. Halifax has a system of regional parks but water quality has been affected by sedimentation and erosion due to flooding, both related to urbanization in the affected drainage basins.

With its Green Zone, the Vancouver region appears to have had the most comprehensive system of ecological protection. Even here, however, there has been a lack of consideration as to how well the protected lands function as a system for preserving and enhancing biodiversity and how this can be optimized through future management. In other urban regions, provincial policy statements encourage municipalities to take steps to protect natural features but the results are uneven.

Encourage employment growth to strengthen the core and designated sub-centres

A central element of the Smart Growth program is the need to direct employment growth into specific centres within the urbanized portion of the region. A network of such nodes is required in order to create major destinations that can be well served by good quality transit.

The case studies revealed that all six urban regions had policies to promote a nodal employment structure. However, outcomes have been disappointing. In Vancouver, only 16.6 per cent of employment growth is going into town centres, while in Calgary the centres that were anticipated in suburban areas and around transit stations have failed to substantially materialize. Saskatoon has seen little in the way of suburban sub-centres as described and reccommended in the city's development plan. Toronto's successful sub-centres are limited to those found in the City of Toronto (especially North York) and Mississauga. In Montréal, the employment poles are holding their own, with about one-third the total regional jobs. In Halifax, much of the employment growth has gone into car-dependent business parks scattered throughout the region, that are competing with one another for further growth.

Compounding this lack of performance in terms of employment concentration are the design issues that plague many sub-centres. Instead of the high-density, mixed-use activity nodes portrayed in planning documents, many nodes, especially suburban ones, are bleak areas with vast tracts of parking and monotonous commercial architecture, flanked by highway infrastructure. Few of them are served with good-quality transit.

Provide infrastructure to reduce ecological impacts of development

Urban growth in all six study regions long ago overwhelmed the carrying capacity of local ecosystems. Only through the installation of engineered systems can human populations continue to grow in these regions without incurring serious environmental problems.

All six urban regions are well served with drinking water, although there is some concern with contamination in Calgary, Toronto and Montréal, mostly from septic failure or sewage system loadings in surface water bodies serving as sources of potable water.

Sewage systems are continuously being upgraded in all six regions, with Vancouver and Saskatoon adding advanced (secondary or tertiary) sewage treatment facilities within the last few years. Montréal upgraded its system in the 1990s such that the whole CMA now receives primary treatment but only 16.5 per cent of the population receives advanced treatment. In Halifax, 77 per cent of the population receives no sewage treatment at all and only 16.7 per cent receives advanced treatment. Both Vancouver and Halifax are planning major upgrades to their sewage treatment facilities over the coming years.

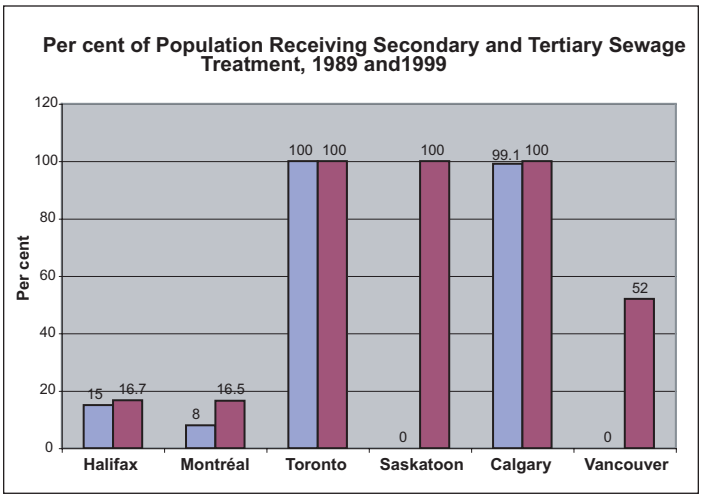

Chart 4: Percentage population receiving secondary and tertiary sewage treatment (1989 and 1999)

Source: Municipal Water Use Database, Environment Canada

In addition to improving conventional water and sewer systems, municipalities and regions are beginning to experiment with innovative stormwater management at the site level and district energy systems.

CONCLUSIONS

This study has shown that there is a large gap between the stated growth management policies found in the planning documents of the six study regions and accomplishments on the ground. While major progress has been made in terms of language and policy goals, performance is lagging behind considerably.

Many of the indicators surveyed suggest that progress is absent (mixed use, nodal concentration of employment), minimal (density increases), or mainly retrograde (intensification, housing affordability, range of housing types, protecting ecologically significant features, increasing transportation options). The greatest advance seems to have been made in providing the infrastructure needed to support growth, although even here serious problems remain (especially in terms of sewage treatment).

These results reflect not only a historical lack of political will at all levels of government, but also other constraints such as the many regulations that have been put in place over the decades that militate against innovation in planning and development, the lack of widespread interest in the development community in non-conventional development designs, the financial impacts of municipal taxation and development charges policies, and consumer preference for lower density urban landscapes.

None of these constraints are insurmountable. Indeed, most of them have positive impacts in other frames of reference—preserving existing community character, risk reduction to developers and financial institutions, public health and safety, etc.—and only undermine sound growth management as an unintended side effect. Ultimately, they reflect the low priority that urban growth management has historically had in Canada.

This suggests that these barriers could be addressed by re-assessing their functionality and desirability in a society committed to building cities that work. Although we can't yet conclude that there has been a sea change in popular consciousness, there are many signs that urban growth management is rising rapidly on the agenda of important public priorities—witness the increasingly active role in this regard by the federal government and the spotlight being placed on urban sprawl by many provincial governments as well as mainstream organizations such as business associations and banks, health associations, transportation groups, affordable housing advocates, and others.

These are hopeful signs, but much work remains to be done. On the research level, a two-pronged strategy is needed. On the one hand, we must continue to point to those cases where progress is apparent in the expectation that successful innovations can be repeated elsewhere. On the other hand, more in-depth research is required into the specific mechanisms that prevent policy intentions from moving forward toward tangible changes on the ground.

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