

Investigating the Commitment to Official Plan Monitoring and Evaluation in Ontario's Mid-Sized Cities

By

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Plans often need updates to stay applicable to evolving needs, experiences and knowledge. In this context, monitoring and evaluation of plans has a critical role to play in guaranteeing the applicability and relevance of the plans. Monitoring and evaluation can provide planners with information which can help them make decisions based evidence of plan performance. However, despite its significance and potential, monitoring and evaluation is generally a forgotten step in planning practice.

Very little research has been done about the municipal experience with comprehensive community plan monitoring and evaluation in Canada or elsewhere. Therefore, the aim of this research is to identify whether and to what extent mid-sized municipalities in Ontario are evaluating their Official Plans and to compare and contrast the current practice with the best practices described in the literature. A sample of mid-sized cities in Ontario has been selected for this research because this cohort has received a very little attention in the planning literature, generally.

To conduct the research, various parameters that constitute an ideal plan monitoring and evaluation were identified from the literature review. The Official Plans and other major monitoring reports including housing and environmental monitoring reports were content analysed to identify the state of Official Plan evaluation in the mid-sized cities. The findings of the research suggest that there is a significant gap between what may be considered the best practices for plan monitoring and evaluation as mentioned in the literature, and the reality in the mid-sized municipalities in Ontario. Municipalities monitor progress made only in some specific policies such as housing/residential policies, growth management policies and to some extent environmental policies. Furthermore, the writing and structure of plans does not facilitate monitoring and evaluation.

Therefore, to strengthen plan evaluation practice in mid-sized cities of Ontario, the study recommend the provision of monitoring and evaluation guidelines from the provincial government, building institutional capacity, the formulation of evaluable/quantifiable policies,

enhancing the use of outcome-focused indicators, and writing Official Plans in a way that facilitates evaluation.

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Table of Contents

Author’s Declaration.....	ii
Abstract.....	iii
Acknowledgement.....	v
List of Figures.....	ix
List of Tables.....	x
1 INTRODUCTION.....	1
1.1 Overview of Plan Monitoring and Evaluation:.....	1
1.2 Research Gap and Research Questions:	2
1.2.1 In context of plan evaluation practice:	2
1.2.2 In context of plan evaluation literature:	3
1.3 Introduction to Study Area: Medium Sized Cities in Ontario:	4
1.4 Why Medium-Sized Municipalities?	5
1.5 Thesis Structure:	6
2 LITERATURE REVIEW	8
2.1 Defining Plan Monitoring, Evaluation and Indicators:.....	8
2.2 Evolution of Evaluation Theory in Planning	9
2.3 Types of Evaluation	10
2.4 Rationale for Evaluation in Planning:.....	11
2.5 Challenges to Monitoring and Evaluation.....	13
2.5.1 Lack of Commitment and Capacity to Evaluate Plans:.....	13
2.5.2 Evaluation Methods:.....	14
2.5.3 Organization Culture and Political Realities:.....	15
2.5.4 Lack of Causality:.....	16
2.6 Planning an Evaluation:.....	16
2.6.1 Step 1: Planning and Scoping the Evaluation:.....	16
2.6.2 Step 2: Strengthening the Evaluation Design:	19
2.6.3 Step 3: Reporting Findings	22
2.6.4 Step 4: Using Evaluation Findings:	24
2.6.5 Step 5: Sustaining Monitoring and Evaluation System in the Organization	25

2.7	Best Practices in Plan Monitoring and Evaluation in Canadian Municipalities:.....	26
2.7.1	City of Toronto, ON:	27
2.7.2	City of Victoria, BC:	27
2.7.3	City of Calgary, AB:.....	28
2.7.4	City of Prince George, BC:	29
2.7.5	City of Halifax, NS:.....	30
2.8	Summary:	30
3	RESEARCH METHODOLOGY	34
3.1	Research Approach and Research Questions:	34
3.1.1	Research Approach Adopted:	35
3.1.2	Research Questions:	36
3.2	Sample:	37
3.3	Literature Review:.....	39
3.4	Research Tools:	39
3.4.1	Content Analysis:	39
3.5	Research Limitations:	45
3.6	Summary:.....	46
4	FINDINGS AND DISCUSSION.....	47
4.1	Content Analysis:	47
4.1.1	Quantifiable Policies, Goals and Objectives:.....	47
4.1.2	Separate Chapter/Section on Monitoring and Evaluation:.....	48
4.1.3	Rationale for Monitoring and Evaluation and Expected Outcomes:	49
4.1.4	Indicators:	51
4.1.5	Plan Evaluation Design/Process:.....	53
4.2	Official Plan Monitoring:	57
4.2.1	City of Markham.....	57
4.2.2	City of Pickering:	60
4.3	Growth Management Monitoring or Housing and Employment Targets Monitoring:	61
4.3.1	City of Kitchener.....	61
4.3.2	City of Oshawa:	63
4.3.3	City of Cambridge:.....	64
4.3.4	City of Peterborough:.....	66

4.3.5	City of Guelph:	68
4.3.6	City of Clarington:	70
4.3.7	City of Brantford:	71
4.3.8	Town of Whitby.....	72
4.4	Environmental Monitoring:.....	72
4.4.1	City of Windsor.....	72
4.4.2	City of Burlington:	75
4.5	Summary of Findings:.....	78
5	CONCLUSIONS AND RECOMMENDATIONS.....	81
5.1	Revisiting the Research Questions:.....	81
5.2	Key Conclusions:	83
5.3	Key Recommendations:	86
5.4	Value Proposition:.....	89
5.5	Future Research Opportunities:.....	90
	References	91
	Appendices.....	105
	Appendix I	105

List of Figures

Figure 1.1: Mid-sized Municipalities in Ontario, adapted from Sotomayor et al., (2017)	4
Figure 2.1: The evaluation gap in the rational - adaptive planning model, adapted from Kaiser et al (1995)	14
Figure 4.1: Markham Official Plan 2014 Performance Indicators Report	57
Figure 4.2: Kitchener Growth Management Monitoring Strategy, 2019 Annual Monitoring Report	61
Figure 4.3: 2019 City of Oshawa Housing Monitoring Report.....	63
Figure 4.4: City of Cambridge Growth and Staging of Development Report 2019	65
Figure 4.5: City of Peterborough Residential Monitoring Report 2019	67
Figure 4.6: City of Guelph Growth Management and Affordable Housing Monitoring Report 2019	69
Figure 4.7: City of Clarington Growth Trends Review Report 2019	70
Figure 4.8: City of Windsor Report on the State of the Environment 2017	73
Figure 4.9: City of Burlington State of the Environment Report V 2015	76
Figure 4.10: Official Plan Scores.....	78

List of Tables

Table 2.1: Parameters for Analysis:	32
Table 3.1: Sampled Municipalities	38
Table 3.2: Parameters and scale used for analysis	42
Table 4.1: Bifurcation of Plans based on the length of M & E Section:	49
Table 4.2: Indicators adopted in ROSE:	74
Table 4.3: Themes and Issues Identified in SOER	77
Table 5.1: Revisiting Research Questions	81
Table 6 Content Analysis Matrix	105

1 INTRODUCTION

1.1 Overview of Plan Monitoring and Evaluation:

Decision makers and urban planners need to know how best limited and scarce resources can be used to address the challenges that urban areas face. These challenges include the provision of safe drinking water, the supply of affordable housing, a safe liveable physical environment, a decent level of educational and healthcare facilities, improved incomes, employment opportunities, social stability and many more objectives. Especially in the public sector, decision makers need to plan for and manage increasing demand for these basic services while dealing with decreasing resources (Mackay, 2009; UN Habitat, 2009; Kusek and Rist, 2004; Hatry, 1999). Also, the rapid pace and degree of change in the decision-making environments of local government calls for the assessment of various trends, activities and performances (Mackay 2009; Seasons 2003a). These factors have led to a greater interest in plan monitoring and evaluation among municipal governments.

Continuous monitoring and evaluation of plan integrity, relevance and coherence helps various decision makers and planners make informed and relevant decisions about resource allocations (UN Habitat 2009; Guyadeen 2017). Plans need to be current and responsive to evolving needs, experiences and knowledge. In this regard, the monitoring and evaluation of plans has a critical role to play to enhance the applicability and relevance of these plans (Brody 2003). This is especially the case with Official Plans, Ontario's version of the comprehensive community plan.

Monitoring is defined as the tracking or collection of information on indicators or any other sources on a regular basis in order to identify the patterns and trends concerning the plan's activities and evolution. *Evaluation* is defined as the process to determine whether, and to what extent the plan's results and outcomes are achieved. Evaluation in planning is conducted at three stages. *A priori, or ex ante evaluation*, is a common form of evaluation in which various solution options are assessed in order to identify possible solution options that could be included in the plan, based on the established goals and objectives and identified issues (or opportunities) (Alexander, 2006).

Formative evaluation is conducted in the early stages of the plan, program or project implementation in order to modify the program delivery and to fine-tune or redirect various aspects such as program design and program administration. This type of evaluation allows adjustments to be made to the performance or direction of policy or plan in its early life (Rossi et al., 1999, 36; Wholey, 2004, 67).

Summative evaluations are conducted to determine whether the plan has achieved its desired goals and objectives; this type of evaluation can also identify intended as well unintended results. Summative evaluation takes place once the plan is implemented has reached maturity in order to permit performance assessment. It tends to focus on the impacts and outcomes of the plan and programs (Cousins et al., 2014; McDavid and Hawthorn, 2006).

The focus of this research is on summative evaluation because I wish to identify whether medium sized municipalities in Ontario have monitored and evaluated their Official Plans in accord with what are considered best or ideal plan evaluation practices.

1.2 Research Gap and Research Questions:

1.2.1 In context of plan evaluation practice:

Monitoring and evaluation is considered important in planning because it can increase the accountability and credibility of planners, enhance the legitimacy of the planning profession, and foster a continuous learning environment (Laurian et al., 2004; Stevens, 2013). Monitoring and evaluation provide planners with information which can help them to make evidence-based decisions (Krizek et al., 2009). Moreover, evaluation of plans can satisfy the obligation of planners to be accountable by demonstrating the benefits of planning interventions to many audiences and stakeholders involved in the planning process. However, despite its significance and considerable potential, monitoring and evaluation is generally a forgotten step in the process of planning practice (Laurian et al., 2010). Hoch (2002, 57) states that “professional planners make plans and use them to justify a variety of regulatory, investment, project, and assorted development activities. But rarely do professional planners evaluate plans, or at least not in the same manner as they go about making them.”

1.2.2 In context of plan evaluation literature:

Plan evaluation is a territory which is relatively unexplored (Oliveira & Pinho, 2011), although its potential has been addressed through research contributions from Lichfield (2000), Khakee (2003), Seasons (2003 and 2021), Laurian et al. (2010), Alexander (2006), (Oliveira & Pinho, 2011) and Guyadeen (2017) in the last 20 years. Plan evaluation consists of plan quality evaluation and plan implementation and/or plan outcomes evaluation. Various studies have been conducted in the past with a focus on plan quality evaluation (Berke & Godschalk, 2009; Berke et al., 2006b; Lyles & Stevens, 2014; Stevens, 2013; Woodruff & BenDor, 2016).

On the other hand, very little research has been done on municipal-level government experience with plan outcome monitoring and evaluation in Canada or elsewhere (Seasons, 2003; Stevens, 2013; Guyadeen, 2017; Hopkins, 2001). A comprehensive study, very similar to this research, was conducted by Seasons (2003) in which Official Plans and related monitoring reports of the Regional Municipalities of Ontario were content analysed. The objective was to investigate the state of Official Plan monitoring and evaluation and also to determine various factors that facilitate or impede monitoring and evaluation in municipalities. This study was first of its kind in Ontario to investigate the extent of commitment to monitoring and evaluation at the municipal government level.

Therefore, this research tries to explore the above gap in the literature to better understand the state of plan monitoring and evaluation in Canada, especially in the Province of Ontario. The Official Plans of medium sized cities were content analysed in this research in order to determine the state of plan monitoring and evaluation in these municipalities. The following research questions were established to guide this research:

- What are considered ideal factors and best practices for monitoring and evaluating plans?
- What is the state of plan evaluation practice in Ontario's mid-sized cities?
- Is current practice in mid-sized cities consistent with ideal condition and best practices mentioned in the plan evaluation literature?

1.3 Introduction to Study Area: Medium Sized Cities in Ontario:

Various definitions of medium sized cities are used by different researchers in different studies (See Filion et al., 2004; Burayidi, 2001; Seasons, 2003b; Bunting et al., 2007). While many definitions are used, cities falling in the population range of 50,000 to 500,000 are adopted for conducting this research. Cities within the population range of 50,000 to 500,000 were categorised as mid-sized cities by the researchers at the University of Waterloo's Centre for Core Area Research and Design, and Mid-Size City Research Centre as this range reflects the Canadian urban settlement pattern (Seasons, 2003b; Lederer and Seasons, 2005). Therefore, cities falling in this population range have been selected for conducting this study.

There are total of 37 municipalities in Ontario which fall within the population range of medium sized cities definition selected for this research. The total population of these cities is 4,852,077 and represent approximately 36% of the total population of Ontario. The mid-sized cities include both single-tier (totalling 15) and lower-tier municipalities (totalling 22).

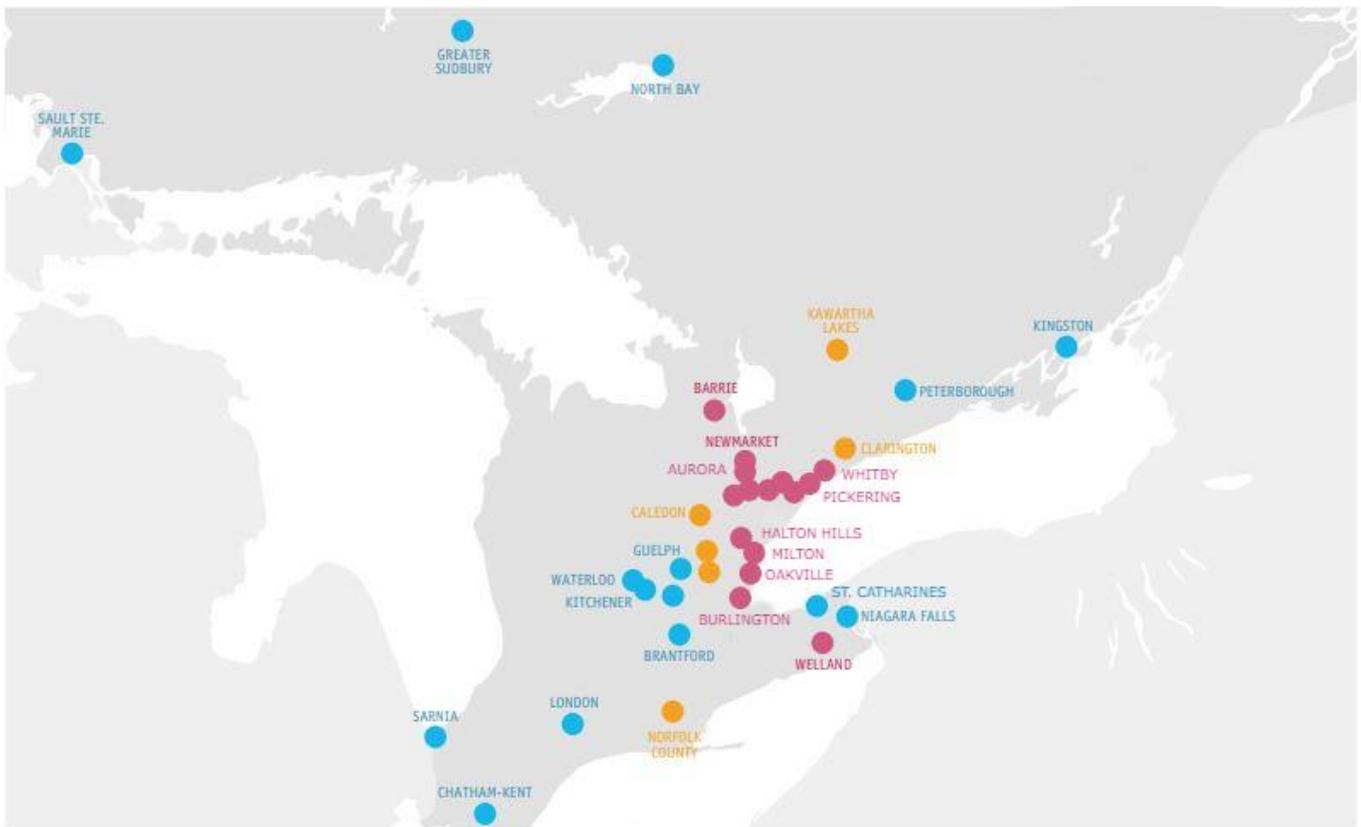


Figure 1.1: Mid-sized Municipalities in Ontario, adapted from Sotomayor et al., (2017)

1.4 Why Medium-Sized Municipalities?

The research focuses on mid-size cities because this cohort has received little attention in the planning literature, especially when compared with the usual focus on large cities and metropolitan regions (Bunting et. al., 2007; Robertson, 1999; Seasons, 2003b). The majority of Canadian mid-sized cities are characterized by an overall low-density profile, low central area density, poor transit facilities, good accessibility for automobiles, absence of traditional centralization, easy access in suburban areas and core-area decline and stagnation (Bunting et. al., 2007; Filion et al., 2004). Further, various social, economic and environmental issues are apparent in the mid-sized cities. These challenges require careful handling as these cities often lack a strong economic base and revenues in order to address various socio-cultural, fiscal and other challenges (Seasons, 2003b). In addition, mid-sized cities have relied on scaled-down versions of the policies and solutions implemented in large cities which are not often readily transferable to the mid-size cities. These mid-size cities represent a massive part of the Ontario's population, still these cities lack in planning models which reflect their particular circumstances and needs. This is because the mid-size cities still need to have a distinct status of their own as compared to large cities.

Not every mid-sized city is the same. Mid-sized cities in and around Greater Toronto and Hamilton Area (GTHA) are experiencing high level of development and growth as compared to the cities which are located far from GTHA (Sotomayor et al., 2017). Therefore, new approaches are required to support the uniqueness of these mid-sized cities that are place-based, consider the various impacts of external pressures from the regions they are located in, and respond to the unique opportunities and challenges these cities face in creating quality places and meeting infrastructural requirements. In summary, monitoring and evaluation can help enable the planners to develop new models of planning that are more specific to the context of these mid-sized cities.

The first study on plan monitoring and evaluation in Ontario conducted by Seasons (2003a) focused on regional municipalities in the Province and provided insights into plan evaluation experience in these large municipalities. This research, on the other hand, will try to fill the

above mentioned gap in the planning literature of mid-sized cities from the perspective of monitoring and evaluation by providing findings and results on the state of mid-sized municipalities' experiences with Official Plan monitoring and evaluation.

Planning issues are just as complex in mid-size cities as they are in larger urban centres, and they must be addressed. However, the lack of optimum availability of resources in the cities may result in ineffective plan monitoring and evaluation which means that planners in the cities have an incomplete or incorrect understanding of the state of things. Therefore, the this study aims to (a) enhance the understanding of the landscape of the mid-size city from the perspective of monitoring and evaluation, and (b) provide insights on the models of plan evaluation that could work in these places.

1.5 Thesis Structure:

This thesis is organized in five chapters – Introduction, Literature Review, Methodology, Findings and Discussions and finally, Conclusions and Recommendations. The first chapter introduces to the brief overview of monitoring and evaluation and its significance, gaps in plan evaluation practice, research gap in plan evaluation literature and mid-sized cities and introduces to research questions and research contribution.

In Chapter 2 (Literature Review), the relevant body of literature on plan monitoring and evaluation is discussed – definition and types, its evolution in planning practice, significance in planning process, various challenges linked to its application and best practices in Canada. This chapter prepares a base for conducting the content analysis as it reviews what are considered the ideal condition and elements of plan monitoring and evaluation models and processes.

In Chapter 3 (Methodology) the research approach adopted to answer the research questions is explained. The chapter begins with a brief introduction of the different types of research approaches, and then explains the rationale behind research methodology selected for carrying out this research. The chapter also introduces the study area – medium sized cities in Ontario - and the rationale behind selecting mid-sized cities for research.

In Chapter 4 (Findings and Conclusions), the findings of the content analysis of the Official Plans and monitoring reports of the sampled municipalities are reviewed. The findings indicate whether, how and to what extent these mid-sized municipalities have an active Official Plan monitoring and evaluation program. This chapter provides a comparison of current monitoring practice in these municipalities with what may be considered ideal practice in the literature.

Finally, in Chapter 5 (Conclusions and Recommendations), key findings from this research are reviewed. The findings are the basis for various strategies and recommendations that are proposed to strengthen plan monitoring and evaluation practice in municipalities. Reflections on the research experience and future research opportunities are also provided here.

2 LITERATURE REVIEW

This chapter discusses the relevant body of literature on plan monitoring and evaluation – definition and types, its evolution in planning practice, significance in planning process, various challenges linked to its application. Key concepts are explained, and the ideal factors or best practices associated with plan monitoring and evaluation are described. Accordingly, this chapter prepares the basis for the content analysis of Official Plans in Chapter 4.

2.1 Defining Plan Monitoring, Evaluation and Indicators:

It is important to begin this discussion with a review of the key concepts that are used in this thesis.

Monitoring is defined as the tracking or collection of information on indicators or any other sources on a regular basis in order to identify the patterns and trends concerning the plan's activities and evolution. Weiss defines monitoring as "an ongoing assessment of program operations conducted during implementation to assess whether activities are being delivered as planned, are reaching the target population, and are using resources appropriately" (1998, p.333).

Evaluation is defined as the process of determining whether, and to what extent the plan's results and outcomes have been achieved. According to Weiss, evaluation is the "systematic assessment of the operation and/or outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program or policy" (1998, p.4).

Indicators provide qualitative and/or quantitative measures or information of patterns and trends which forms the foundation to assess the progress of the plan towards its stated goals and objectives. During the monitoring process, the information and data collected by indicators are regularly checked and updated. If monitored properly, this information and data describes the nature and extent of change i.e. whether there is contraction or growth in key elements of

the plan (Wholey et al., 2015). In plan evaluation, it is important to combine qualitative and quantitative indicators because many socio-economic issues are not quantifiable.

While indicators provide information about patterns and trends, they cannot always easily reflect on causal links between the factors and variables. Moreover, Innes and Booher (2008, p.178) state that indicators “do not show the causes of problems, only their existence. They show trends in conditions, but they do not tell us what to do. They are indicators, not answers.” It is the evaluation as a whole that can clarify the extent of progress (or otherwise) toward achieving the plan’s goals and objectives.

2.2 Evolution of Evaluation Theory in Planning

Monitoring and evaluation principles have been discussed in urban and regional planning and planning theory since the late 1950s and early 1960s (Lichfield, Kettle, and Whitehead 1975; Hambleton and Thomas, 1995).

During the early rise of the development of program evaluation theory in the 1960s and early 1970s, scholars promoted highly technocratic approaches to plan evaluation that consisted of quantitative, structured and technical analysis of planning proposals and goals using various analytical tools such as expensive and elaborative computer modelling exercises (Lichfield, Kettle, and Whitehead, 1975; Mcloughlin, 1970). Techniques such as the Goals Achievement Method, Planning Balance Sheet and Cost-Benefit Analysis were included in the first generation of planning-oriented evaluation research.

However, these techniques were rarely used in practice (Bracken, 1981; Lee, 1973 and 1994). Planners begin to realise that these models which are based on the rational comprehensive planning process are not attainable because of the significant obstacles such as time, cost, data management problems and interpretive capacity (Bracken, 1981). Therefore, planners changed their focus to *ex post* (summative) form of evaluation in the early 1980s to focus more on the quality of outputs of plans (Bracken, 1981). In practice, most evaluation in planning practice would be considered *ex ante* evaluation which includes the assessment of the most suitable choice of policy, project or plan alternatives as the plan evolves (Seasons, 2021).

More recently, we have seen the emergence of refined versions of plan evaluation that focus on plan impacts and outcomes - i.e., conformance and performance based evaluations. Both of these evaluation models represent the *ex post* or *summative* evaluation approaches. The main focus of the conformance based evaluation approach is on plan implementation. The objective of conformance based evaluation is to determine whether and to what extent the link between the plan intent and the on-ground results can be established (Laurian et al., 2004; Guyadeen, 2017 and Seasons, 2021). The plan is considered to be implemented if the on-ground development patterns adhere to the policies mentioned in the plan and meet the objectives of the plan (Alexander, 2006a). Therefore, the plan is interpreted as a blueprint for future development as this approach assumes the direct relationship between plan objectives and its outcomes (Laurian et al., 2007).

On the other hand, performance based evaluation approach focuses on planning processes and the plan is considered to be a guideline for future planning decisions, instead of a blueprint (Alexander, 2006a). In this approach, the plan is considered to be implemented if it is used in the decision making process. This evaluation approach assumes that since changing circumstances influences the planning practice, the plans need not adhere strictly to its policies in order to influence decision making or to effect change (Laurian et al., 2007).

2.3 Types of Evaluation

As per Laurian et al., planning evaluation can be defined as the “systematic assessment of plans, planning processes, and outcomes compared with explicit standards or indicators” (2010, p.741). Evaluation in planning is conducted at three stages. A priori, or *ex ante* evaluation, in which various solution options are assessed in order to identify the best suitable plan based on the established goals and objectives and identified issues (or opportunities) (Alexander, 2006).

Formative evaluation is conducted in the early stages of the plan, program or project implementation in order to modify the program delivery and to fine-tune or redirect various aspects such as program design and program administration. This type of evaluation allows

adjustments to be made to the performance or direction of policy or plan in its early life (Rossi et al., 1999, 36; Wholey, 2004, 67).

Summative evaluations are conducted to determine if the plan has achieved the desired goals and objectives; it can also identify intended as well unintended results. This evaluation takes place once the plan is implemented has reached maturity in order to permit performance assessment. It tends to focus on the impacts and outcomes of the plan and programs. It can help to inform decision-making regarding future of various interventions and to make improvements in its strategies and components (UN Habitat, 2009).

As per (UN Habitat, 2009), in the context of urban planning, evaluation should address the following questions:

Plan Formulation (ex ante):

How well does the plan evaluate alternatives prior to plan implementation?

Does the preferred alternative represent the best fit with the plan's goals and objectives?

Plan Administration (formative):

How efficiently is the plan being administered?

Is there a need to revise plan review and approval procedures?

Are implementation tools aligned with and supportive of the plan?

Plan Impacts (summative, ex post):

How well do plan outcomes, results and impacts meet plan objectives?

Is the plan implementation process efficient and effective?

Have outputs and outcomes justified inputs, and has the plan met policy requirements?

2.4 Rationale for Evaluation in Planning:

Monitoring and evaluation is considered to be important in planning for numerous reasons, including increasing the accountability and credibility of planners, increasing the legitimacy of the planning profession, fostering a continuous learning environment and many more (Laurian

et al., 2004; Stevens, 2013). Decision makers and urban planners need to know how best the limited and scarce resources can be used to address the challenges that urban areas are facing. Especially, in the public sector, planners and decision makers need to plan for and manage the increasing demand for basic services with the decreasing level of resources (UN Habitat, 2009). Moreover, the rapid pace and degree of change in the decision making environments of local government call upon the assessment of trends, various activities and performances. Continuous evaluation of a plan helps various decision makers and planners to make informed and relevant decisions about the allocation of various resources (Krizek et al., 2009).

Planners often face difficulties in determining whether planning decisions and the interventions made were successful or whether the work done by them is “good” or “bad” (Alexander and Faludi, 1989). Also, planners in local government have to demonstrate the benefits of planning interventions as planning involves many audiences and stakeholders. Therefore, the obligation of planners to be accountable can be satisfied by monitoring and evaluating plans. This can also increase the credibility of planners and their efforts and will also increase the legitimacy of planning as a profession (Seasons, 2003a, 2021; Stevens, 2013).

Monitoring and evaluation provides planners with information that can help them make decisions on an evidence-based approach by basing policies and plans on sound and established reasoning (Krizek et al., 2009). Hill (1985, p. 180) explains that evaluation, “by addressing central questions about the nature, context, implementability, and expected effect of policy options in plans, can provide evidence and inform wide-ranging public debate about policies and their outcomes”. In this sense, evaluation can make planners self-reflective practitioners as it provides knowledge and information about the past experiences i.e. what outcomes the past initiatives have resulted in, which further helps in informing the future decisions of the planners in determining what is best applicable to their respective situations (Schon, 1983 and Gibbs, 1988).

Furthermore, as per Hill (1985), monitoring and evaluation during the process of plan implementation can provide answers to various questions such as:

- Whether the plan is being implemented as planned or are there any deviations?

- Whether the implementation process is effective or not?
- To what extent the implementation process is being influenced by the administrative and political structure of the system?
- To what extent the decisions taken during the course of plan implementation increase the likelihood of the plan to meet its desired goals?

Therefore, having answers to these questions can help planners to design and manage the evaluation process more effectively through which they can better formulate, implement and evaluate the progress of planning initiatives.

2.5 Challenges to Monitoring and Evaluation

2.5.1 Lack of Commitment and Capacity to Evaluate Plans:

Planning organisations often lack the commitment and resources such as time, skills and money to evaluate municipal plans (Seasons, 2003a). Monitoring and evaluation is generally a forgotten step in the process of rational planning practice (Refer Figure 2.1). Formulating and launching new plans is much more rewarding for decision-makers and planners rather than evaluating past planning interventions (Laurian et al., 2010). Most planning staff and resources in municipalities concentrate on the facilitation and review of developmental proposals rather than policy research or development. Therefore, very limited time is left for activities like policy research and evaluation of plans (Waldner, 2004).

The majority of municipalities lack the adequate number of expert staff on monitoring and evaluation as well as technical resources such as data management and research capacity which are required for a credible evaluation exercise (Seasons, 2003a). Moreover, many municipalities perceive the process of monitoring and evaluation to be too complicated and lengthy, and therefore not worth the effort or commitment of limited resources (Seasons, 2003a, 2021).

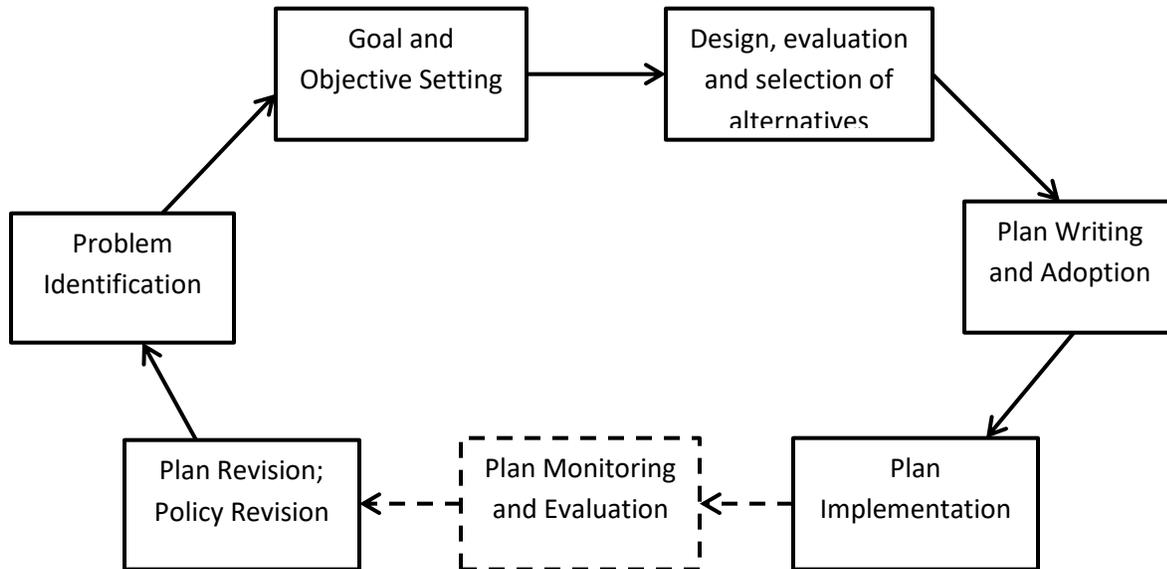


Figure 2.1: The evaluation gap in the rational - adaptive planning model, adapted from Kaiser et al (1995)

2.5.2 Evaluation Methods:

In plan evaluation studies, the typically used evaluation methods used are both quantitative and qualitative research methods along with triangulation (Weiss, 1998). The choice of research method to be used for study by the planners is affected by available time and resources and program details (Seasons, 2003a, 2021). Most municipalities rely on quantitative indicators to monitor and evaluate their plans. These quantitative data sources include municipal assessment records, municipal or national censuses, development application files, scientific or special statistical surveys and demand and supply data regarding issues such as housing, economic development and transportation systems (Seasons, 2003a, 2003b).

From the perspective of plan evaluation, quantitative analysis needs to be complemented with qualitative analysis in order to prepare a complete picture of plan results and planning context and also to develop various solution paths. Qualitative analysis can reflect on stakeholders' feelings, values and perceptions about the municipal Council's success over the goals and objectives of the plan (Laurian et al., 2010). However, very few municipalities complement their quantitative data collection with qualitative data collection methods. The reason for the underuse of qualitative monitoring methods in the municipalities is that qualitative research

requires considerable energy, time, expertise and resources to design and manage efficiently and effectively which most the municipalities lack in (Seasons, 2003, 2021).

2.5.3 Organization Culture and Political Realities:

In order to conduct evaluation effectively and efficiently, the organization must have a supportive culture. Here, culture means the attitude of staff members towards plan evaluation as well as support from politicians and senior staff (Love, 1996; Poister and Streib, 1999). This also requires the organizations' willingness to strive for excellence by improving themselves through accepting failures and risk tolerance (Peters, 1996; Osborne and Gaebler, 1992). Organizations having such attributes are considered as "learning organizations" as they adopt monitoring and evaluation for the purpose of enhancing their performance (Senge, 1994).

However, there are many change-averse organizations which do not have any willingness to improve or to excel and try to escape from criticism, and are satisfied with the current state of affairs. In these organisations, evaluation can be a threat and might be regarded as an administrative burden on the staff (Mackay, 2007). Organizational resistance can take many forms, for example, organizations might not like any unintended or uncontrollable impacts that any substantial change to their operations or policies can generate. Management might feel better working under the same environment rather than exploring something which is not familiar. Also, sometimes the staff is too emotionally invested with the particular way of working that they resist change in their practice and thinking (Seasons, 2021). Therefore, organizations need to be more receptive to monitoring and evaluation and to accept change in order to do things in alternate ways and to strive for excellence.

The lack of political will also affects the application of monitoring and evaluation. Many political interests, that might be external or internal to the organisation, are vested in the planning activities which can influence the plan evaluation practice also (Rittel and Webber, 1973; Forester, 1989). Plan evaluation is supposed to produce both positive as well as negative results. Positive results are embraced by politicians and local decision makers. However, negative results are often downplayed, ignored or even rejected. This could result in efforts to

influence the whole design of evaluation process, choice and selection of stakeholders, nature of stakeholders' participation and the interpretation of the evaluation findings in order to benefit particular agendas (Seasons, 2021).

2.5.4 Lack of Causality:

Causality is considered to be a crucial element in plan monitoring and evaluation. Seasons refers to causality as “an identifiable link between goals or inputs and both short and long term results” (2003a, p.435). Causality in planning programs is difficult to establish because many outcomes of planning programs and policies are often influenced by non-planning factors (e.g., changing market conditions, political decisions) (Carmona & Sieh, 2008; Mascarenhas et al., 2015). In other words, planning interventions such as land use decisions may influence various dimensions of social, built and natural environment, and various social, environmental and political factors which have no relation to the plan can typically influence various outcomes of planning interests (Laurian et al., 2010).

2.6 Planning an Evaluation:

A five-step model is explained which can be adopted for the development of the evaluation approach. However, this process can vary as per the time and resource constraints of each municipality and its information needs.

2.6.1 Step 1: Planning and Scoping the Evaluation:

a. Identifying the Need to Evaluate the Plan:

Before planning the evaluation exercise, the first and the foremost step is to find out whether *there a need to evaluate the plan?* The purpose of answering this question is to identify whether the evaluation is necessary and if yes, can the plan be properly evaluated? (Kusek and Rist, 2004; Wholey, 1979). Various factors can act as catalysts for conducting evaluation such as emergence of any particular challenges or issues during the plan's life cycle which calls for immediate evaluation, a mandate from Provincial legislation to conduct evaluation, or a request

from the plan stakeholders and clients to conduct evaluation (Seasons 2021; Watkins and Kvale, 2014).

b. Conducting Readiness Assessment:

Readiness Assessment is a diagnostic tool which can be used to identify whether the municipality is equipped with all the prerequisites to build a monitoring and evaluation framework (Kusek and Rist, 2004; Morra Imas and Rist, 2009). The main consideration is to determine the feasibility of plan evaluation - i.e., whether the plan can be evaluated. There are various factors which need to be considered here - i.e., whether the plan has achieved sufficient maturity in order to permit evaluation and whether the municipality is equipped with sufficient capacity and resources (e.g., managerial and technical skills, research capacity, available data and technology, funding, institutional experience etc. in order to be able to conduct evaluation (Edvardsen, 2011; Newcomer, Hatry and Wholey, 2015; Morra Imas and Rist, 2009). Moreover, the structure and writing style of the plan should be in a format that is facilitates monitoring and evaluation. If all these requirements are met, only then the evaluation plan can move forward.

c. Identifying Evaluation Approach

After this, the evaluation team needs to select the type of evaluation approach for evaluating the plan by taking into consideration various constraints that might affect the evaluation of plan. In the case of an *expert-driven evaluation*, with limited stakeholder participation, the process would follow a particular path and would be much straightforward than other approaches involving stakeholders. This type of approach is useful for internal evaluation exercises only where the intent is to obtain a quick sense of plan performance. However, this approach is linked to challenges such as inclusiveness and credibility (Seasons, 2021; Newcomer et al., 2015; Kusek and Rist, 2004).

If this is to be a *participatory evaluation*, then different stakeholders and clients will be involved in the evaluation process. Also, the roles and responsibilities of these participants at different stages would be established. In this approach, the evaluation team needs to make some

conscious decisions about how to involve stakeholders and end users in the evaluation process through public participation (Seasons, 2021; Newcomer et al., 2015; Kusek and Rist, 2004).

d. Identifying Clients and Stakeholders

Clients of plan evaluation include planning staff, Chief Administrative Officer (CAO) and the Council. Stakeholders include community residents, other government agencies and organizations, business interests and special interest groups (McDavid and Hawthorn, 2006; Seasons, 2021). There might be variation in the point of view of different stakeholders, but they all should share some common traits such as a genuine interest in evaluation and willingness to train themselves about the whole process of evaluation - i.e., purpose, principles and methods (Bryson and Patton, 2010; Bryson, 2004). Here, some important rules need to be established by the plan evaluation team regarding elements such as roles and responsibilities and decision-making rules (Patton, 2003).

e. Defining Scope of Evaluation

The evaluation team needs to determine the kind and comprehensiveness of the evaluation exercise which will satisfy the information needs of the organization conducting the evaluation, and the key stakeholders who are affected by or have an interest in the plan. Client and stakeholder information needs will determine the focus, timing and level of comprehensiveness of the evaluation exercise. Deciding on the scope of the evaluation in the early stages will help to eliminate unnecessary collection data and analysis and thereby, save time and reduce cost (Bamberger and Rugh, 2009). Here, it will be decided that whether an in-depth evaluation is required or a “quick and dirty” evaluation would be sufficient to inform the current status and recommend changes to the plan (Seasons, 2021).

f. Internal vs. External Evaluation Approach

The evaluation team will decide who will design and conduct plan evaluation. Three ways can be adopted for conducting evaluation:

- An internal exercise, where the planning staff will design and manage the evaluation exercise.
- Through organization's corporate structure, such as CAO's office.
- By external contractors, such as consultant from the private sector who are trained in conducting evaluation or involving university faculty and students (Seasons, 2021).

Different pros and cons are associated with each approach. For example, if the planning staff does not have the required expertise and resources in order to conduct plan evaluation, then the external evaluation team can provide with necessary expertise with the design and management of evaluation exercise as well as stakeholder engagement. However, the external evaluation team might lack the nuanced sense of planning culture, process and operating realities of the organization (Seasons, 2021; Bamberger et al., 2012).

2.6.2 Step 2: Strengthening the Evaluation Design:

a. Evaluation Questions

Evaluation type (formative or summative) and the context within which the evaluation is taking place will guide the development of evaluation questions (Rossi, Freeman, and Lipsey, 1999; Patton, 2008). The focus of a summative evaluation is on the outcomes, impacts and outputs which can be linked to the goals, objectives and policies of the plan, therefore, the evaluation team needs to create questions that search for answers related to results. The questions should be selected carefully as the whole of data collection and analysis will depend upon the type of questions. In this instance, a *research design matrix* can be prepared in which, for each evaluation question, the evaluation team can outline, information required, sources of data collection, methods of data collection and analysis, any limitations regarding data and potential findings and conclusions for each question (U.S. Government Accountability Office, 2009). Also, before finalizing the evaluation questions, the evaluation team needs to make sure that evaluation questions are matched with the clients' and stakeholders' information requirements. (Rossi, Freeman, and Lipsey, 1999).

b. Research Design Strategy

A critical task is to develop the research design including the research approach and methods. Design strategy or choice will be affected by resource constraints such as staff and travel costs, burden of data collection on planning staff, and bureaucratic and political costs (Newcomer, Hatry and Wholey, 2015). The first step will be deciding on an evaluation approach. The evaluation team needs to decide whether quantitative, qualitative or mixed methods approach would be most suitable as per plan evaluation information requirements (Morra Imas and Rist, 2009).

Quantitative research relies more on numerical data gathered from primary and secondary sources and explains patterns, trends and relationships. Qualitative research reflects perspectives, attitudes, values and experiences of different stakeholders and clients. A mixed method research approach integrates both quantitative and qualitative methods in order to generate a more nuanced, informative and comprehensive picture of the situation (Creswell and Creswell, 2017).

In order to identify the best research design, a pilot test of the proposed research approach and methods can be considered. Conducting a pilot test will be an asset in refining research design and can provide an idea about the cost and feasibility of data collection (Newcomer, Hatry and Wholey, 2015). However, in the case of comprehensive plan evaluation, the mixed methods approach is assumed to be the most reasonable approach in order to conduct evaluation (Seasons, 2021).

c. Developing a set of Key Indicators

Development of key indicators for monitoring outcomes will help the planners to assess the extent to which promised or intended outcomes are achieved. Development of indicators is a core activity in developing a monitoring and evaluation framework as it will derive the subsequent collection, analysis, interpretation and reporting of data. The selected indicators must be monitorable, and the design of monitoring process should be based upon the organization's resource constraints (Carmona & Sieh, 2005, 2008). Planners should focus on

developing performance indicators which measures the outcomes of the planning interventions rather than just inputs and outputs. According to Schiavo-Campo (1995), a “CREAM” criteria can be used to guide the development of indicators.

- **Clear:** Precise and unambiguous
- **Relevant:** Appropriate to the subject at hand
- **Economic:** Cost efficient
- **Adequate:** Provide sufficient information to assess the performance
- **Monitorable:** Amenable to independent verification or validation

All of these five criteria should be met in order to make sure that indicators are collecting useful information. Everyone involved should be aware about the process and purpose of using the indicators. Too complex or too large set of indicators should be avoided which might lead to ineffective and inefficient resource use, burn-out amongst participants of evaluation and ultimately, failure of monitoring process (Seasons, 2021). Selection of indicators should be done with the consultation of stakeholders and it would be wise to pilot the indicators first to ensure that the monitoring or evaluation needs are addressed by the indicators (Laurian et al., 2010; Alexander, 2006b).

d. Baseline Information

Baseline information will be established at the beginning of the monitoring. Kusek and Rist (2004, p.81) defines baseline as “information-quantitative and qualitative-that provides data at the beginning of, or just prior to, the monitoring period“. Then, data collection is done to compare the baseline information with current situations. Continuous collection of data from the baseline information will help planners and decision-makers to assess whether they are on track in achieving the outcomes they desire (Morra Imas and Rist, 2009; Kusek and Rist, 2004).

e. Establishing Targets:

After collecting baseline information, the next step is to establish targets. Targets can be defined as desired level of performance to be achieved within a specific time (McDavid, Huse

and Hawthorn, 2019). One important consideration in developing the targets is to determine past performance or previous trends based upon which the future targets can be projected. Another consideration is to keep in mind organizational capacity and resource considerations (i.e. personnel, budget, facilities, funding resources etc.) while setting targets (Mertens and Wilson, 2012; Kusek and Rist, 2004).

f. Evaluation Ethics

Planners may have to deal with various external and internal pressures while managing various evaluation tasks i.e. designing the evaluation process, collecting and analysing the data and finally presenting the findings of the evaluation. Various ethical issues may arise such as excluding certain people or legitimate stakeholders from participating in the evaluation process, establishing research questions which are not relevant to the evaluation process, deliberately modifying the findings before releasing them or ignoring specific findings and issues related to confidentiality (Morris and Cohn, 1993; Morra, Imas and Rist, 2009). Therefore, plan evaluators are expected to get approval from the ethics board of their organization for their proposed evaluation design (Seasons, 2021). For professional evaluation practice, all plan evaluators need to subscribe to ethical standards.

2.6.3 Step 3: Reporting Findings

a. Developing a Communication Strategy

The process of establishing a communication strategy will be done at the stage of evaluation planning and appropriate refinements to the strategy can be made as the evaluation proceeds. The most critical step in developing a communication strategy is determining what, when and to whom the evaluation findings will be reported (McDavid, Huse and Hawthorn, 2019).

b. Know the Target Audience

Familiarity with the target audience - i.e., their expectations, interests and preferred medium of communication - should be considered while developing the communication strategy. Moreover, perspectives and advice of stakeholders and clients will provide an effective way to

refine the communication strategy before its official launch (Alexander, 2006). Different formal (e.g., written reports, presentations and briefings) and informal (e.g., conversations, fax, e-mail, phone etc.) communication strategies and tools can be useful in the dissemination of evaluation findings (Newcomer, Hatry and Wholey, 2015). Hitting the right level of content and tone while interacting with clients and stakeholders is the main objective while disseminating the information (Seasons, 2021). Some participants would only require basic details and facts whereas others would ask for more comprehensive findings report (Bamberger et al., 2012; Valadez and Bamberger, 1994).

c. Managing Bad News:

Communication with evaluation participants must be tactful and sensitive to their possible reactions. For example, positive findings should be prioritized over negative findings whenever possible and warn clients beforehand if difficult or bad news is more prevalent, so that they may not find it as an unwelcome surprise. Furthermore, conclusions can be framed as suggestions for improvements if the recommendations are perceived as threatening (Grob, 2015).

d. Producing the Evaluation Report

An evaluation report is the standard means to present the evaluation findings. It is the mandatory product that the plan clients require. The report has to be carefully written because the information produced by the report can be used for many different purposes (Worthen, Sander, and Fitzpatrick 1997, p.409):

- To demonstrate credibility of the planning interventions and accountability of the planners and decision-makers on the promises made to various stakeholders and citizens.
- To investigate and explore what worked and what does not and the reason behind it.
- To convince various stakeholders and decision-makers using the findings as an evidence.
- To gain support of various stakeholders by demonstrating the evaluation results.

Fitzpatrick et al. (2011) and Kusek and Rist (2004) suggest some tips for presenting data:

- Use simple and direct language that is easy to understand
- Avoid making very lengthy reports (decision makers and policy makers may have the technical intellectual ability to read and digest the analysis but they may certainly do not have the time to go through each and every detail of the analysis).
- Avoid jargon and acronyms
- Use language that is interesting and not dull

Further, the right tone should be set by the report, for example, if most of the findings are negative, then the stress should be on the positives and, most importantly, various steps should be identified in the report which will be taken to correct the problems (Hatry, 1999 and 2006). Different findings can be presented through different presentation techniques. For instance, findings from quantitative methods can be presented through charts, diagrams and various other visual representation forms.

e. Report Structure

The report should consist of various elements i.e. executive summary; introduction; focus of the evaluation; explanation of evaluation design; findings, conclusions and recommendations (Seasons, 2021; Kusek and Rist, 2004).

2.6.4 Step 4: Using Evaluation Findings:

After reporting the results of evaluation, the next step is to use these evaluation findings.

Evaluation findings can be used for various matters (Hatry, 2006; UNDP, 2002):

- To demonstrate transparency and accountability.
- To make informed decisions about the resource allocations.
- To initiate in-depth examination of what did not work and the solutions are required to correct it.
- To motivate the planning staff to continuously make improvements to the plans and service delivery.

- To promote an environment of knowledge and learning in the municipalities.
- To transform the organizational culture i.e. changing the attitude to planners and decision makers towards plan monitoring and evaluation.

2.6.5 Step 5: Sustaining Monitoring and Evaluation System in the Organization

Ideally, monitoring and evaluation should be conducted on a continued and regular basis as a part of routine practice in the planning departments. Integrating ongoing monitoring and evaluation into plan with relevant indicators will ensure evidence based decision-making environment.

a. Role of Planning Department

The planning department has to make evaluation a key element in the decision making process and the department's culture. For this purpose, the municipality will need to train its planning staff in fundamentals of plan evaluation and data collection and analysis skills. Moreover, municipalities need to make sure that specific responsibilities are assigned to staff members for evaluation and most importantly, that monitoring and evaluation component is explained in the policy plans. Planning departments should also make sure that data collection systems are modernised (Seasons, 2021; Kusek and Rist, 2004).

b. Incentives:

Introducing incentives will encourage the use of monitoring and evaluation in the municipalities. This means acknowledging and rewarding success, addressing problems and valuing organizational learning (Kuzek and Rist 2004; Mackay, 2009). Providing appropriate incentives can help stakeholders and decision makers motivated and on track. IFAD states that "Putting in place incentives for monitoring and evaluation means offering stimuli that encourage monitoring and evaluation offices and stakeholders to perceive the usefulness of monitoring and evaluation, not as bureaucratic task, but as an opportunity to discuss problems openly, reflect critically and criticise constructively in order to learn what changes are needed to enhance impact" (2002, Section 7, p.4).

Some examples of incentives that can be provided include financial rewards such as appropriate salaries, hiring staff that has learning attitude, providing appropriate resources to conduct monitoring and evaluation activities, promoting and encouraging the environment of asking questions and innovation and by appreciating the efforts of the personnel who participated in conducting plan evaluation by showing them how their hard work has contributed to the plan improvement (IFAD, 2002).

c. Internal and External Relationship

Building and maintaining partnerships/collaborations with community stakeholders, other agencies and institutions such as university students and faculty members may contribute in evaluation exercise by extending limited resources. For example, academic faculty or students can contribute by providing the necessary training and research and advice on the development and design of evaluation process.

Positive relationships must be maintained with influential people both internal and external the organization as they can provide ongoing support to evaluation function. In local government, the CAO, commissioner and directors from other departments and Council members can provide such support (Seasons, 2021).

2.7 Best Practices in Plan Monitoring and Evaluation in Canadian Municipalities:

This section details out the best practices in comprehensive community plan monitoring and evaluation in the municipalities across Canada. The following cities are selected as examples of best practices because they have developed a proper evaluation framework for monitoring and evaluating the policies mentioned in their community plans. More information about how these cities have conducted plan evaluation is explained below.

The main purpose to study these best practices is to identify how these municipalities are evaluating their comprehensive community plans and what factors make them the best practices. The other main purpose is to identify the parameters that should be included in ideal plan monitoring and evaluation which will form the foundation for conducting this research.

2.7.1 City of Toronto, ON:

The City of Toronto's Official Plan has a separate section of 'monitoring and assessment' in the Implementation chapter (City of Toronto, 2018). This section explains about the process that needs to be followed to carry out monitoring and evaluation and also lays the foundation for the basis of selection of the indicators by mentioning the broad areas in which progress will be assessed. The City Planning Division issues a document named 'City of Toronto Official Plan Indicators' which includes Official Plan indicators and the progress being made under them.

A total of nineteen indicators are established under six broad areas i.e. directing growth, economy and employment, transportation, housing, quality of built environment and climate change (City of Toronto, 2018). The document also consist information on the relevance of selecting each indicator as per Official Plan goals and objectives which links each indicator with plan goals and objectives making it easier to understands why a particular indicator is important to study or assessed. A graphic representation in terms of charts of the results under each indicator is also included, making easier to interpret the results.

2.7.2 City of Victoria, BC:

The City of Victoria Official Plan has adopted adaptive management approach to ensure that the various uncertainties and risks linked with the changing conditions in the city are assessed and mitigated while implementing the plan and while making progress toward the goals and objectives of the Official Community Plan (OCP). The city has developed an Official Community Plan Monitoring and Evaluation Program to assess the progress towards the plan goals and objectives (City of Victoria, 2018a).

The OCP monitoring program has a total of 100 indicators, of which 17 are annual key indicators which are used to assess the progress being made annually while the remaining indicators are measured approximately every five years. These indicators measure the progress being made under the thematic areas of the plan. Selection of Indicators is based upon the criteria i.e. they must be meaningful, readily available, outcome-oriented, reliable, accepted and spatial (City of Victoria, 2018b).

The Official Community Plan Monitoring program produces two different reports i.e. an annual review document that consists progress and reporting on key annual indicators providing the snapshot of activity, and a Five-Year Monitoring Report that Contains progress on more comprehensive set of indicators and evaluation of implementation progress. In the evaluation report, following information is provided under each Indicator section:

- What is being measured and the method of measuring?
- Why is this Indicator important?
- Target/Desired Trend
- How are we doing?

Most importantly, progress is shown through various graphical charts and also spatially in the form of maps to make it easier to understand which areas of the city are experiencing progress under each indicator.

2.7.3 City of Calgary, AB:

The City of Calgary Municipal Development Plan was adopted by Council in 2009 and includes a section on monitoring. The section talks about the process to be followed for monitoring and evaluating the progress and even contains all the relevant information about the type of indicators, baseline condition and targets established under each indicator in the plan itself (City of Calgary, 2017).

A broad spectrum of indicators has been developed to measure the progress of the plan in terms of social, economic and environmental performance of the plan. Indicators are divided into broad categories i.e. Land Use and Mobility Indicators. The plan has also includes details on baseline situation and targets to be achieved in measurable terms for each indicator over a specific period of 60 years. The selection of targets was based on other cities benchmarking and through stakeholder engagement.

Reporting is conducted in before each 3-year City Business Planning Cycle and provides help in developing strategic growth decisions and investment strategies (City of Calgary, 2018).

Progress on core indicators is measured on a continuous basis and is reported to Council, administration and the public prior to each business planning cycle. Also, the indicators are reviewed after the span of 10 years to examine whether the policy direction requires any adjustment or not. Furthermore, each metric and target is also evaluated to ensure its alignment with updated vision and policies.

2.7.4 City of Prince George, BC:

The City's Official Community Plan has a very small chapter on 'Targets and Indicators: Monitoring, Evaluation and Report' (City of Prince George, 2012). Progress of the OCP is checked every 5 years through OCP 5-Year Monitoring Report. The report provides an overview of how goals and objectives stemming from the OCP are being implemented. The first OCP 5-Year Monitoring Report, 2017 represents the first comprehensive effort to set indicators to facilitate the monitoring of the current OCP.

Considering the goals and objectives of the Official Community Plan, various Indicators are developed to measure the progress. Various departments were involved in the process of indicator development and collection of data for the indicators. For example, the City of Prince George Sustainable Community Development staff partnered with the School of Environmental Planning at University of Northern British Columbia's (UNBC) to discuss approaches and share ideas on how to measure the progress of OCP (City of Prince George, 2017).

A total of 30 indicators are developed under the 8 topic areas. Selection of indicators was done on the following criteria:

- Reliable source of data and its easy availability.
- Regular data collection
- The indicator is reflective of progress towards achieving OCP goals, objectives and policy direction.

Each indicator page has multiple sections;

- What is being measured and where the data is coming from?

- How are we doing: which includes information regarding performance under that indicator? Also, it includes information regarding the OCP implementation status and capital trends under the indicator.
- Why the indicator is important: which explains how the indicator is related to OCP Policy and Objectives?

2.7.5 City of Halifax, NS:

The Regional Municipal Strategy produced by the Halifax Regional Municipality contains a small section on 'Measuring Success' in chapter 9 – Governance and Implementation (Halifax Regional Municipality, 2014). In this small section, process of monitoring and evaluation is explained very briefly and the detailed information of performance measures and indicators are provided in the 'Appendix A – Regional Municipality Planning Strategy Indicators'. The plan has adopted some seventy-five indicators that align with the plan's policy areas. Source of data collection and the frequency of data collection (in terms of semi-annually, annually, and every three or five years) for each indicator is also listed in the plan.

Despite having adopted the performance oriented evaluation approach by the HRM plan i.e. the indicators are selected to help access outputs that can be attributed to the plan, there is lack of evidence of consideration of plan outcomes or impacts. Moreover, the rationale behind selection of indicators and how the plan monitoring and evaluation would unfold is missing from the plan.

2.8 Summary:

- The rationale for plan evaluation and its expected outcomes must be established during the plan evaluation design process - i.e., whether and why evaluation is important. This rationale should be communicated to all the stakeholders in order to buy-in to the findings and evaluation as a whole.
- The plan evaluation design process should be inclusive i.e. representative of diverse perspectives and interests on plan.

- Roles and responsibilities of various participants and departments should be established in the early stages of the plan evaluation design process and should be mentioned in the plan itself in order to facilitate smooth evaluation.
- Once the evaluation rationale is established, the evaluation team should identify various context specific research questions which need to be answered following the evaluation process i.e. whether the plan has achieved its intended goals and objectives?
- Appropriate research design or approach should be selected by the evaluation team in order to address the research questions i.e. quantitative, qualitative or mixed method approach.
- The evaluation findings should be communicated to stakeholders through media and other platforms that are appropriate as per their information needs.
- The comprehensive community plan should include a dedicated section or chapter on monitoring and evaluation that describes rationale for evaluation, evaluation process and design, research strategy, indicators and communication strategies adopted.

These elements and characteristics of what are considered the ideal or best practices are represented in Table 2.1. This represents the analytical framework that will be used to carry out the content analysis of the Official Plans in Ontario's mid-sized cities.

Table 2.1: Parameters for Analysis:

Parameter	Description
Official Plan	
Quantifiable Goals/Objectives/Policies Or Targets	Does the plan include goals and objectives which are quantifiable and based on measurable objectives and/or targets? (Berke & Godschalk, 2009; Morrison & Pearce, 2000)
Integration of Goals/Objectives/Policies and Indicators as self-thematic chapters	Does the plan include indicators within each thematic chapter that forms the causal links between the objectives and evaluation outputs? (Seasons 2021)
Separate Section on Monitoring and Evaluation	Does the plan consist of separate monitoring and evaluation chapter that include all the relevant information about the evaluation process? (Berke & Godschalk, 2009; Berke et al., 2006b)
Rational for Monitoring and Evaluation and Expected Outcomes	Does the Plan specify the importance and need of monitoring and evaluation and the expected outcomes from the evaluation process? (Seasons 2021)
Plan Evaluation Design/Process	Does the plan contain details of the evaluation process and design to be followed?
Research Questions	Does the plan specify the research questions that need to be answered through the evaluation process (Rossi, Freeman, and Lipsey, 1999; Seasons, 2021).
Research Design and Methods	Does the plan specify details on research approach (quantitative/qualitative/mixed) and related methods to be used through the evaluation process?
Indicators: Type/Process of generating the indicators	Does the plan identify different indicators to be used to collect the data? Does the plan identify the importance of indicators and how the selected indicators were generated? (e.g. through public consultation) (Laurian et al., 2010; Carmona & Sieh, 2005)
Who is Involved (How and what Stages)	Does the plan identify what clients and stakeholders will be involved and how and when their participation will be required during the evaluation process? (Alexander 2006)
Responsibilities assigned for different monitoring and evaluation tasks	Does the plan identify the responsibilities undertaken by different departments and staff for different tasks of evaluation process? (Patton, 2003)
Frequency of Monitoring and Evaluation	Does the plan identify that after what interval monitoring and evaluation will be conducted? (Berke & Godschalk, 2009; Berke et al., 2006b)

Communication Strategies	Does the plan identify the process of disseminating the information on evaluation findings to diverse stakeholders based on their information needs? (Bamberger et al. 2012; Alexander, 2006)
Plan Evaluation Report	
Executive Summary	Does the report identify executive summary consisting of highlights of the evaluation including key messages (Grob 2004).
Introduction to Report	Does the Introduction to the report identify purpose and structure of evaluation and also the method to interpret findings and recommendations? (Newcomer, Hatry and Wholey 2015)
Explanation of Plan Context	Does the report identify the importance, role and key characteristics of the plan itself? (Seasons 2021)
Evaluation Process	Does the report consist details of evaluation design including research design, evaluation steps and rational for each step? (Grob 2004)
Findings and Conclusions	Does the report contain detailed findings, its implications, intended and unintended outcomes and impacts? (Segone et al., 2009; Bamberger and Rugh 2009)
Recommendations based on conclusions	Does the report identify recommendations based on the conclusions in terms of what needs to be done, when, how and by whom? (Kusek and Rist 2004; Worthen, Sander, and Fitzpatrick 1997)

The parameters identified through the literature review will act as a foundation for conducting analysis. Based on these parameters the current plan evaluation practice of mid-sized municipalities will be compared and contrasted with the best practices in order to identify the gap in plan monitoring and evaluation practice. In Chapter 3, the methodology of conducting this research is explained which includes research questions and their objectives, various research tools used to answer the research questions, analytical techniques and information on data sources.

3 RESEARCH METHODOLOGY

This chapter discusses about the research approach adopted to answer the research questions mentioned in Chapter 1. The chapter begins with the brief introduction of the different types of research approaches and then explains the rationale behind the selection of research methodology selected for carrying out this research. The chapter also discusses various limitations of the research.

3.1 Research Approach and Research Questions:

As per Creswell (2014, p.3), a research approach is defined as a “plan and procedure for research that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation”. There are three types of research approach - i.e., quantitative, qualitative and mixed methods. *Quantitative research* is generally expressed in graphs and numbers. These numbers usually represent the change in patterns and trends over a period of time (Gay, Mills and Airasian, 2009). Quantitative research includes experimental research and survey research. Experimental research determines if an outcome is influenced by a specific treatment. This is determined by giving a particular treatment to a group and withholding that treatment from other group and the outcomes from both the groups are observed. Under survey research, the researcher administers a survey to a sample to identify the opinions, attitudes, experiences, behaviour and other population characteristics (Keppel, 1991).

The *qualitative research* approach involves a deeper understanding of a phenomenon by exploring and understanding various patterns and themes in the data. The qualitative method enables a deeper understanding of a phenomenon whereas quantitative method helps in enabling the identification of patterns of responses (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). The qualitative research includes phenomenological research and narrative research (Creswell, 2014).

The *mixed method approach* involves using both quantitative and qualitative techniques, incorporating them to achieve more comprehensive understanding of research questions (Creswell, 2014). The qualitative method will enable a deeper understanding of phenomenon

whereas quantitative method will help in enabling the identification of patterns of responses (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). This approach consists of two major designs i.e. concurrent and sequential. The concurrent design is applied when validation of various kinds of collected data is required (Creswell, 2014). On the other hand, Sequential Design is an iterative process in which the data in the second phase is built upon by utilizing the data in the first phase (Driscoll et al., 2007).

The type of research approach to be adopted for study depends on the type of data required to answer the research questions. For example, if numerical data are required to answer the research questions then quantitative approach will be adopted, if textural data are required to answer the research questions then qualitative approach will be adopted, and if both numerical and textural data are required in order to answer the research questions, then the mixed method approach is adopted (Williams, 2007).

3.1.1 Research Approach Adopted:

For the purpose of conducting this research, a **qualitative research approach** is adopted. It involves a deeper understanding of a phenomenon by exploring and understanding various patterns and themes in the data (Creswell, 2014). Methods of conducting qualitative research include observations, interviews, focus groups, document analysis and audio-visual and digital materials (Creswell and Creswell, 2017). Various advantages of qualitative research include:

- It enables interpretation of findings in terms of models and theories and then determining whether the observations and findings confirm or refute the existing theory (Seasons, 2021).
- Qualitative research when used with quantitative research can help better interpret the complex reality behind the given situation and quantitative data implications (Mack, 2005).
- Focuses on interpretation and description of data and can lead to an evaluation of an organizational process (Hancock et al., 2001).

Some of the disadvantages of the qualitative approach are as follows:

- Results and findings from the qualitative approach or research are most often given low credibility by the policy-makers because of the missing quantitative orientation of the results (Rahman, 2020; Berg, 2009; Ochieng, 2009).
- Data interpretation and analysis is more complex or difficult as compared to quantitative approach (Richards and Richards, 1994; Berg and Lune, 2012).
- Missing statistical representation of data can lead to duplication of data over time (Rahman, 2020).

Why a Qualitative Approach?

In the context of this research, qualitative research approach is selected because of the following reasons:

- To identify the trends and patterns in plan evaluation practice.
- To compare and contrast best practices in literature with practice realities.
- To interpret the quality of plan in terms of monitoring and evaluation
- To interpret the extent to which and how various municipalities have monitored and evaluated their Official Plans.

3.1.2 Research Questions:

The following research questions will be answered through this research:

1. What are considered best practices for monitoring and evaluation of plans?

Objective: To identify the elements or parameters that constitutes best practices for plan monitoring and evaluation.

2. What is the state of plan evaluation practice in Ontario's mid-sized cities?

Objective: To explore and analyze the current status of Official Plan monitoring and evaluation in the mid-sized cities.

To identify whether the municipalities are evaluating their Official Plans as a whole or not? If yes, then how, and if not, then what specific Official Plan policies are being monitored or evaluated by these cities?

Research Tool: Content Analysis

3. Is current practice in mid-sized cities consistent with ideal condition mentioned in the plan evaluation literature?

Objective: To compare and contrast current monitoring and evaluation efforts with the best practices mentioned in the literature and identify gaps.

Research Tool: Content Analysis

3.2 Sample:

A sample of 37 medium-sized municipalities was selected for content analysis. As per the definition, cities falling in the population range of 50,000 to 500,000 were considered mid-size cities (Seasons, 2003b; Lederer and Seasons, 2005). The total population of the sample is 4,852,077 and represent approximately 36% of total population of Ontario (Statistics Canada Census 2016). The sample includes both single-tier (N=15) and lower-tier municipalities (N=22). The municipality having highest the population in the sample is the City of London having a population of 383,822 , whereas the City of Belleville with a population of 50,716 is the lowest in the sample. The table below provides details on the breakdown of sampled municipalities, including population in 2016, type of municipality and recent year of Official Plan Consolidation.

Table 3.1: Sampled Municipalities

Municipality	Type	Population (2016)	Official Plan Consolidation	Population Change (2006 – 2016) in %
London	Single Tier	383,822	2019	8.1
Markham	Lower Tier	328,966	2018	20.5
Vaughan	Lower Tier	306,233	2019	22
Kitchener	Lower Tier	233,222	2019	12.2
Windsor	Single Tier	217,188	2013	0.3
Richmond Hill	Lower Tier	195,022	2020	16.5
Oakville	Lower Tier	193,832	2018	14.5
Burlington	Lower Tier	183,314	2019	10.3
Greater Sudbury	Single Tier	161,531	2019	2.2
Oshawa	Lower Tier	159,458	2019	11.2
Barrie	Single Tier	141,434	2018	9.1
St. Catharines	Lower Tier	133,113	2018	0.8
Guelph	Single Tier	131,794	2018	14.6
Cambridge	Lower Tier	129,920	2018	7.9
Whitby	Lower Tier	128,377	2018	15.4
Kingston	Single Tier	123,798	2019	5.6
Ajax	Lower Tier	119,677	2016	32.7
Milton	Lower Tier	110,128	2008	104.2
Thunder Bay	Single Tier	107,909	2018	-1.1
Waterloo	Lower Tier	104,986	2020	7.7
Chatham-Kent	Single Tier	101,647	2018	-6
Brantford	Single Tier	97,496	2020	8.1
Clarington	Lower Tier	92,013	2018	18.2
Pickering	Lower Tier	91,771	2018	4.4
Niagara Falls	Lower Tier	88,071	2019	7.1
Newmarket	Lower Tier	84,224	2016	13.3
Peterborough	Single Tier	81,032	2019	8.1
Kawartha Lakes	Single Tier	75,423	2012	1.1
Sault Ste. Marie	Single Tier	73,368	2006	-2.1
Sarnia	Lower Tier	71,594	2014	0.2
Caledon	Lower Tier	66,502	2018	16.5
Norfolk County	Single Tier	64,044	2020	2.3
Halton Hills	Lower Tier	61,161	2020	10.6
Aurora	Lower Tier	55,445	2010	16.4
Welland	Lower Tier	52,293	2019	3.9
North Bay	Single Tier	51,553	2012	-4.4
Belleville	Single Tier	50,716	2020	3.8

Source: Statistics Canada Census 2006 and 2016

3.3 Literature Review:

A comprehensive literature review was completed before conducting content analysis in order to identify the potential gaps in monitoring and evaluation research which further lead to articulate research questions and research objectives for this research. The review of literature also helped to explore the previous studies conducted on monitoring and evaluation of Official Plans and also informed the approach to conduct this research based on those studies. The literature review was used to provide a clear and in-depth understanding of various concepts related to plan evaluation such as types of evaluation, significance of evaluation in planning practice, evolution of the principles of plan monitoring and evaluation in urban and regional planning and various challenges linked with plan monitoring and evaluation.

The review of literature also consisted of an in-depth review of the ideal process that should be followed for conducting monitoring and evaluation of comprehensive community plans as well as various best practices related to comprehensive community plan evaluation in the Canadian context. This in-depth review was crucial for the research as it helped to identify various parameters which constitute an ideal condition for monitoring and evaluation of plans (Refer Chapter 2). These parameters constituting an ideal condition are then compared and contrasted, using content analysis, to the current practice of Official Plan evaluation in the Ontario mid-sized cities in order to answer the third research question. Therefore, the literature review helped in developing a theoretical lens, informing the way to collect and analyse the data and finally assisted in crafting recommendations on what municipalities can do in order to strengthen the plan evaluation exercise.

3.4 Research Tools:

3.4.1 Content Analysis:

Content analysis of documents is a very crucial and widely used qualitative research method in plan evaluation studies. Content analysis is a method which involves careful and systematic examination and interpretation of documents in order to identify various themes, patterns, meanings and assumptions (Berg & Latin, 2008; Leedy & Ormrod, 2005; Neuendorf, 2002).

There are two approaches to content analysis – i.e. manifest content analysis and latent content analysis. Manifest content analysis examines the present and countable elements in the documents. On the other hand, latent content analysis seeks to understand the meaning of those elements in the data. In other words, manifest content analysis describes the contents that are visible in the document (text) whereas latent content analysis interprets the meaning of the physical data (subtext) (Lune and Berg, 2017).

The content analysis method is widely used by the researchers in plan evaluation for several reasons:

- Plans are publicly available and accessible.
- Highly specialised skills or professional expertise is not required to extract the data from the plans because basic familiarity with the plans, attention to detail and reading comprehension are sufficient.
- Only the individual who is doing the coding is required to understand the tools to extract the data.
- The method is inexpensive as no specialized tool, expensive software or travel is required (Lyles and Stevens, 2014; Creswell and Creswell, 2017). With this research, we compared and contrasted the content of the plans against what the literature described as best practices.

This study uses the '*manifest content analysis approach*' as the main objective is to analyse whether the plans are formulated while keeping in mind considerations for monitoring and evaluation. This will be determined by investigating the presence or absence of several parameters in the Official Plans, not by how many times each parameter is appearing in the plan.

Manifest content analysis also includes providing a magnitude to the observations which are known as descriptive statistics. The descriptive statistics represent the frequency distribution or proportion of elements occurring in the large amount of material under study. Providing magnitude to certain observations enables the researcher to present the overall analysis (Lune and Berg, 2017; Bruce and Berg, 2001). Moreover, as discussed above, the main limitation of

qualitative research is the low credibility of the findings because of the missing statistical representation of data. Therefore, in order to address this limitation, I have used descriptive statistics to support the findings from the content analysis of the Official Plans.

Data Sources:

The data sources for conducting analysis are the Official Plans and other monitoring reports including housing or residential monitoring reports, growth management monitoring reports, and environmental monitoring reports prepared by the municipalities. The Official Plan is a policy document that guides the long-term development of the community. It includes the policies which guide the location and size of various land uses, provision of various municipal services and facilities and includes zoning by-laws in order to regulate and control the development of land (MMAH, 2010). Every municipality in Ontario is obliged to prepare an Official Plan. These plans have to be properly maintained to ensure currency and relevance of policy direction and content and that calls for some form of monitoring and evaluation.

The reason for including other monitoring reports in the study is that very few municipalities have conducted monitoring and evaluation of Official Plan document as a whole. Most of the municipalities in the sample have monitored and evaluated some selected policies of the Official Plans and prepared related monitoring reports. Therefore, the study has included other monitoring reports which are specifically mentioned in the Official Plan to get an idea of what policies are being monitored by the municipalities. The Official Plans and monitoring reports were downloaded from the official website of each municipality. The latest Official Plan consolidation available on each municipality's website was used for content analysis. Similarly, the latest version of each monitoring report was downloaded to conduct analysis.

Data Collection and Analysis:

Reference on how to conduct content analysis and to provide descriptive statistics to the observations was taken from previously done studies on plan quality evaluation (See Baker et al., 2012; Berke and Godschalk, 2009; Brody, 2003a & 2003b; Horney et al., 2016; Horney et al., 2012; Lyles & Stevens, 2014; Stevens, 2013; Guyadeen, 2017). The same approach to

conducting plan quality evaluation is adopted in these studies which included identifying various parameters that constitute as high plan quality parameters and then developing a coding protocol for conducting content analysis to examine the presence and absence of these parameters in the plans. By providing descriptive statistics, it means giving a value or a score to the performance of each parameter in the Official Plans. In this research, a total of 19 parameters are identified, which includes 13 parameters for Official Plan and 6 parameters for Plan Evaluation Report. The coding system consists of the utilization of binary scale (i.e. “0” and “1”) as well as three level ordinal scale (i.e. “0”, “1” and “2”). In binary scale, “0” denotes that the parameter is absent from the plan and “1” denotes that parameter is present in the plan. In ordinal scale, “0” denotes that the parameter is not identified in the plan, “1” indicates that the parameter is present but vague, and “2” denotes that the parameter is explained in detail and clearly stated. Description of which scale is used for each parameter is mentioned in the table below:

Table 3.2: Parameters and scale used for analysis

Parameter	Scale
Official Plan	
Quantifiable Goals/Objectives/Policies Or Targets	Ordinal Scale
Separate Section on Monitoring and Evaluation	Binary Scale
Rational for Monitoring and Evaluation and Expected Outcomes	Ordinal Scale
Research Questions	Binary Scale
Research Design and Methods	Binary Scale
Who is Involved (How and what Stages)	Binary Scale
Responsibilities Assigned for Different Monitoring and Evaluation Tasks	Binary Scale
Frequency of Monitoring and Evaluation	Binary Scale
Communication Strategies	Binary Scale
Integration of Goals/Objectives/Policies and Indicators as self-thematic chapters	Binary Scale
List of Indicators	Binary Scale
Type of Indicators	Binary Scale
Process of Establishing the indicators	Binary Scale

Source: Guyadeen (2017); Berke and Godschalk (2009)

The ordinal scale is used for quantifiable policies, goals and objectives because most of the Official Plans contain quantifiable policies only related to population and employment growth, density and intensification targets which are identified in the Growth Plan for Greater Golden Horseshow. Policies written under the remaining themes are generally vague. Therefore, using a binary scale for this parameter is not relevant because “0” will denote that none of the policies are quantifiable and “1” will denote that all the policies are quantifiable.

Analytical Techniques:

Scores were calculated both parameter-wise and Official Plan/municipality wise. Reference on how to score were again taken from the scoring protocol developed in the previous studies (See Baker et al., 2012; Berke and Godschalk, 2009; Brody, 2003a & 2003b; Horney et al., 2016; Horney et al., 2012; Lyles & Stevens, 2014; Stevens, 2013; Guyadeen, 2017). Scores have been calculated by following steps:

Steps to calculate score ***parameter wise***:

Here the scores given to each parameter are explained. For example, how the score is given to the “Quantifiable goals and policies” parameter in all Official Plans is explained below:

- Based on the scale given to the parameter score is given. Here “Quantifiable goals and policies” is given ordinal scale; therefore, based on the performance in an Official Plan this parameter will be given “0”, “1” or “2”.
- Following the initial step this parameter will be given score for all the Official Plans
- Scores given to all the municipalities/Official Plan under this parameter will be summed up.
- The summed scores will then be divided by the highest possible score that this parameter can get. In this case, “2” is the highest score. Therefore, the resultant summed score will then be divided by 2.
- Lastly the resultant score was then multiplied by 10 in order to place the score on a scale of 0 – 10.

Also, it is important to note that study has not compared the different parameters based upon their scores because each parameter has its own relevance and importance in the evaluation process. Therefore, here the main intent of the study is to identify what the state of each parameter is in all the Official Plans relative to best practices mentioned in the plan evaluation literature.

Steps to calculate score ***Official Plan/Municipality Wise***:

In this case, the score is given to each Official Plan, unlike the earlier calculation mentioned above, where the score is given to each parameter. For example, this explains how the score is given to “London Official Plan”:

- Firstly, all the parameters of the London Official Plan will be given scores based on the scales given and their performance in the Official Plan.
- Scores given to all the parameters for London Official Plan will then be summed up.
- Those summed scores will then be divided by the highest possible score that each municipality/Official Plan can get. The highest possible score is 15 for each plan. Therefore, the summed score will be divided by 15.
- Lastly the resultant score was then multiplied by 10 in order to place every score on a scale of 0 – 10.

Additionally, the scores of all the Official Plans were then summed up in order to calculate the mean (average). This value represents the state of all the mid-size cities Official Plans combined from the perspective of monitoring and evaluation. It is important to note that ranking of Official Plans/municipalities based on their scores is not done because of the two reasons - i.e., firstly, it is not the intent of the study to point out any particular municipality based on its performance in the analysis and secondly, there is very little variation in the scores of all the Official Plans which makes it difficult to make any strong conclusions related to any particular Official Plan.

In order to present the observations and findings based on the content analysis, I have not written about the contents of all the different 37 plans separately, because not much difference

was observed in the contents of the plan related to monitoring and evaluation. Therefore, to avoid repetition, I have clubbed some parameters to use them as themes or categories and under these themes I have presented the findings from the content analysis by giving examples of the various specific Official Plans which represent the condition of contents in the other Official Plans also.

Following are category construction or the themes used to present the findings.

- Quantifiable Goals/Policies/Objectives
- Separate section/chapter on monitoring and evaluation
- Rationale for monitoring and evaluation and expected outcomes
- Indicators
- Plan evaluation process/design

3.5 Research Limitations:

This research only delved into discovering “WHAT” is happening in these municipalities in terms of comprehensive community plan monitoring and evaluation. This means the research identifies to what extent municipalities are monitoring and evaluation and comparing the current evaluation practice with the best practices in literature. The research also discussed some reasons behind the facts the study has discovered based on the literature. However, this research has not addressed the element of “WHY” these municipalities are under-performing in plan evaluation practice or in other words, the actual reasons that are impeding the plan evaluation practice in these municipalities. This aspect can be addressed in the future research; planners in these municipalities can be consulted through telephonic or web-based interviews to identify the specific factors that impede plan monitoring.

Through the literature review, various parameters for plan evaluation report are also derived which are mentioned in table 2.1. However, I have not conducted content analysis of plan evaluation reports because no municipality except The City of Markham has conducted Official Plan monitoring and evaluation and prepared an evaluation report. The main observations from the content analysis of The City of Markham’s plan evaluation report are discussed with its

Official Plan content analysis. Therefore, with the exception of the City of Markham's plan evaluation report, this study does not involve the analysis of any other report.

3.6 Summary:

In order to answer the research questions developed in the study, qualitative research approach is adopted as the major research tool used in the study is content analysis. The content analysis procedure to conduct the study explained in this chapter will be applied to the parameters identified in the literature review chapter. In the next chapter, Official Plans and the other monitoring reports - i.e., housing or residential monitoring reports or environmental monitoring reports will be content analysed thoroughly to identify the extent to which municipalities are evaluating their plans, and to compare and contrast their current practice with the best practices mentioned in the literature.

4 FINDINGS AND DISCUSSION

This chapter provides the findings of the content analysis of the Official Plans and monitoring reports of the sampled municipalities. Other monitoring reports include housing or residential monitoring reports, growth management monitoring reports and environmental monitoring reports prepared by the municipalities. The reason for including these reports in the study is that very few municipalities have conducted monitoring and evaluation of Official Plan document as a whole. Most of the municipalities in the sample have monitored and evaluated some selected policies of the Official Plans and prepared related monitoring reports. Therefore, the study has included other monitoring reports which are specifically mentioned in the Official Plan to get an idea of what policies are being monitored by the municipalities.

This chapter has three main sections. The first section elaborates on the various themes or patterns observed in the contents of all the 37 Official Plans from the monitoring and evaluation point of view. The second section elaborates on the municipalities that have conducted monitoring and evaluation of the Official Plan document. The third section elaborates on the various other monitoring reports prepared by the different municipalities.

4.1 Content Analysis:

In this section, the thematic analysis based on the content analysis of the Official Plans is explained. In this section, the current practice or the contents of the Official Plans of all the municipalities are compared with best practices in the literature, and with reference to the analytical framework provided in Table 2.1 (p. 30). The main objective is to determine whether the plans are written in a way that it facilitates monitoring and evaluation, and the extent to which these mid-sized cities' approach to plan monitoring and evaluation is consistent with established best practices.

4.1.1 Quantifiable Policies, Goals and Objectives:

The score for this parameter is 5. This parameter has been given a score on the basis of tertiary scale (i.e. 0, 1 and 2). Here, "0" denotes that the Official Plan does not contain any quantifiable

goals and objects, “1” denotes that the Official Plan contains some of the policies that are quantifiable or evaluable and lastly, “2” denotes that the Official Plan contains all the policies that are quantifiable (Refer Appendix I).

With regard to what are considered best practices, the language of the Official Plans should be as such that it facilitates monitoring and evaluation which means that the goals, objectives and policies mentioned in the plan should be clearly stated and evaluable (Berke & Godschalk, 2009; Morrison & Pearce, 2000). Vagueness in the plan’s vision and policies makes it difficult to anticipate the desired outcomes or impacts. The main objective of the plan evaluation is to determine whether the plan has achieved its desired outcomes and impacts and for this purpose policies, goals and objectives of the plan should be articulated in an explicit manner.

However, not all the policies contained in the Official Plans are quantifiable or contain targets except for policies related to population and employment growth, intensification, residential and industrial land supply and land absorption targets and up to some extent affordable housing and tree cover targets. The reason behind these policies being clearly stated and written in evaluable terms is the provincial legislation. The Growth Plan for the Greater Golden Horseshoe (2020) contains targets related to these policies which the municipalities are required to adopt in their Official Plans. Other than these policies, the majority of the policies, goals and objectives mentioned in the different thematic chapters of the plans are not written in evaluable terms.

4.1.2 Separate Chapter/Section on Monitoring and Evaluation:

The score for this parameter is 7.3 (Refer Appendix I).

Of all the 37 Official Plans, only 27 have separate section/chapter dedicated to monitoring and evaluation. The municipalities which do not have separate section/chapter on plan monitoring include Vaughan, Kingston, Ajax, Thunder Bay, Peterborough, Kawartha Lakes, Halton Hills, Aurora, Welland and Belleville. According to the ideal condition, every Official Plan should have separate chapter or section in the Official Plans (Berke & Godschalk, 2009; Berke et al., 2006b). This chapter should include various details regarding the evaluation process; research design

including research questions, research methodology and research methods; indicators or performance measures; departmental responsibilities; stakeholder participation in evaluation process and communication strategies for evaluation findings.

However, none of the municipalities’ Official Plans included such detailed sections on monitoring and evaluation. The length of monitoring section in the plans ranged from two paragraphs to three pages (Refer Table 4.4). Majority of the plans have two paragraphs to one page section and very few plans have two to three page section on monitoring and review.

Table 4.1: Bifurcation of Plans based on the length of M & E Section:

Total Plans having section on Monitoring and Evaluation	27
Plans having 2 paragraph section	11
Plans having one page section	11
Plans having 2 – 3 page section	5

Source: Content Analysis of Official Plans

The most common information in monitoring section, which is observed in all the Official Plans, comprises one or two statements on what is monitoring and why it should be done, lists of things which city may track or monitor over a particular period of time and information on plan review and update. There is no significant difference in the content of plans having a half-page section and plans having a 3 page section on monitoring. The only difference is the inclusion of more comprehensive list of things to be monitored without any proper monitoring details and processes and considerations for any technical amendments to the plan are included in the longer sections.

4.1.3 Rationale for Monitoring and Evaluation and Expected Outcomes:

The score for this parameter is 2.83. Under this parameter, “1” is given to the plans which have only one or two statements on rationale without discussing about the expected outcomes whereas “2” is given to the plans which have explained both (Refer Appendix I).

Of all the Official Plans, only 21 have included a rationale for conducting monitoring and evaluation. As per the ideal condition, the monitoring section in the Official Plan should explain what is monitoring and evaluation, why it is important for the municipality to conduct evaluation of the Official Plan, what the outcomes of the evaluation exercise will be and how it will help the municipality in the future decision-making (Seasons, 2021). Among the 21 Official Plans, 18 plans include very vague statements on rationale and do not even explain the expected outcomes of the evaluation exercise. These plans include only one or two statements on the need of monitoring and evaluation acknowledging various social, economic and environmental conditions that can change during the course of the plan for which it is prepared. Another statement which is included in mostly all the plans is that monitoring and evaluation can reveal various new emerging initiatives and priorities.

On the other hand, there are only three plans that have performed well in this parameter by including details on both rationale and the expected outcomes of the evaluation exercise. For instance, the City of Chatham-Kent's Official Plan has explained the rationale for plan monitoring in detail in the starting paragraph in which it acknowledges the various external and internal considerations that shapes the plan. From the external consideration, the plan means the provincial legislation such as Provincial Policy Statement and from internal considerations, it means various community interests. The plans acknowledge that both these interests are represented in the Official Plan and are continuously evolving, therefore, the Official Plan must be monitored and reviewed to maintain an effective and current planning policy regime (City of Chatham-Kent, 2018, Section 6.5, p. 20).

Absence of this parameter from the Official Plans can affect the ability of the reader to actually understand the true need and importance of conducting plan monitoring and evaluation especially for the person who is not familiar with the process of monitoring and evaluation. Therefore, it is crucial to talk about the need of conducting evaluation in a detailed and comprehensive way in order to set up a strong foundation for the whole process.

4.1.4 Indicators:

Various parameters that are content analysed in this theme are:

- Integration of Goals, Objectives, Policies and Indicators as a Self-Thematic Chapter
- Presence or absence of indicators in the Official Plan
- Type of Indicators (quantitative and qualitative)
- Process to develop indicators (e.g. stakeholder engagement)

The score for this parameter is 0.27 (Refer Appendix I).

None of the plans have mentioned indicators chapter wise. As per the ideal condition, there must be clear association between indicators and set of possible actions or policies as it becomes easy to link the plan goals with the outcomes (Laurian et al., 2010; Seasons, 2021). Moreover, Official Plans should include targets to be achieved for each indicator categorised on the basis of each thematic chapter in the plan. Apart from including the indicators, the plans should also explain the process to develop those indicators including the details on whether any consultations with different stakeholders and any other agencies or departments in the municipality were done before developing the indicators and criteria behind the selection of indicators (Laurian et al., 2010; Carmona & Sieh, 2005; Seasons, 2021).

However, only one city has included the list of indicators in its Official Plan and that is the City of Pickering. The “Monitoring Framework” chapter of the Pickering Official Plan lays the foundation for developing key indicators in order to measure the progress of the city. The plan has adopted a total of 52 quality of life indicators categorized as per thematic chapters mentioned in the plan. Each indicator has its own performance target to be achieved by 2016 (City of Pickering 2018, p. 391). The monitoring section acknowledges that both quantitative and qualitative indicators will be established in the monitoring program. However, in the list of indicators, only quantitative indicators are adopted and no qualitative indicators collecting information regarding people’s opinion and perception are included.

Various other Official Plans have intended in their monitoring sections to establish indicators to monitor the progress of plan's goals and objectives but no list of indicators is included in the plan and no other monitoring report consisting of indicators is found on these cities. Out of all the 37 Official Plans, 12 plans have included statements to develop key indicators. These 12 municipalities include London, Richmond Hill, Oakville, Burlington, Oshawa, St. Catharines, Milton, Chatham-Kent, Clarington, Sault Ste. Marie, Markham and North Bay.

The Official Plan of the Municipality of Chatham-Kent in its 'Official Plan Monitoring and Plan Review' section states that the *Sustainability Review Team* will be developed by the municipality which will consist of staff members from different municipal departments (Municipality of Chatham-Kent 2018, section 6.5, p. 6-20). This team will be responsible for developing 'Key Performance Indicators' to track the progress made by the plan's policies. However, the plan does not list of these Key Performance Indicators (KPI). Also, the frequency and reporting of monitoring of these KPI is also missing from the plan. Moreover, no reports on Official Plan monitoring are found on the municipality's official website.

The Official Plan of the City of North Bay in its 'Monitoring' section states that the performance of the plan will be monitored by developing 'Community Land Use Indicators' (City of North Bay, 2012. Section 5.4, p. 140). The section also specifies the broad categories in which the community land use indicators will be developed. The plan also states that the results of monitoring of these indicators will be reported through 'Community Land Use Indicator Report' every 5 years coinciding with the Official Plan Review (City of North Bay, 2012. Section 5.4, p. 140). However, no indicators are listed in the plan except one or two statements about the intent to develop indicators. Also, no report on Official Plan monitoring based on these community land use indicators is found on city's official website.

The Official Plan of Burlington emphasises on the monitoring and evaluation of the goals and policies mentioned in the plan through the "quality of life indicators" (City of Burlington 2019, Section 6.1, Part IV, p. 19). However, no such indicators are mentioned in the plan itself. Moreover, no monitoring report or study is found in relation to the quality of life indicators adopted by the city to track the Official Plan's progress on the official website of the city.

The Monitoring Section of the City of St. Catharine's Official Plan state that key indicators and related targets will be established to assess the progress in achieving the desired policies and objectives of the Plan (City of St. Catharines, 2018, Section 16.19, p. 120). The results of this monitoring exercise will be reported in a bi-annual report which will also include the recommendations to change various implementation strategies to improve the plan's performance. However, no such indicators and targets are listed in the plan and no related Official Plan monitoring report is found.

However, despite of mentioning in the plans about the intention to develop indicators, no such studies or reports are found on these 12 Official Plans consisting of indicators. The remaining 24 Official Plans do not include statements that identify or develop indicators to track the progress.

Stakeholder engagement is also one of the major parts of the process of development of indicators. As per the ideal condition, stakeholders should be included in the indicator selection process as they can help in selecting the indicators that represents and meets their information needs (Laurian et al., 2010; Rossi, Freeman, and Lipsey, 1999; Alexander, 2006b). The plans should include details on how and when various stakeholders can be engaged in the indicator selection process. However, none of the Official Plans have included details on engaging community stakeholder in the monitoring process. Only the City of North Bay Official Plan includes a statement on engaging various stakeholder groups in the indicator selection. The plan states that "Community indicators will be developed in conjunction with stakeholder groups representing environmental, social and economic sectors" but other information about how and when the public will be involved in the monitoring process is missing from the plans (City of North Bay, 2012, Section 5.4, p. 140).

4.1.5 Plan Evaluation Design/Process:

Various parameters included in this theme are:

- Description of the research design and research methods
- Research Questions to be answered through evaluation process

- Responsibilities for monitoring and evaluation
- Stakeholder engagement (How and When)
- Frequency of Monitoring and Evaluation
- Dissemination of evaluation results / Communication strategies

All the sub-parameters got a score of 0 except for the “frequency of monitoring and evaluation” sub-parameter which have a score of 1.62 (Refer Appendix I).

The major part of the plan evaluation is planning the design of evaluation i.e. how the whole process of evaluation will take place. As per the ideal condition, the plans should be self-illustrative about the process to be followed for monitoring and evaluation. Firstly, the monitoring section of the plans should include various research questions that need to be answered through evaluation process. These research questions should be context specific and should be prepared with regards to plan outputs, outcomes and impacts (Rossi, Freeman, and Lipsey, 1999; Patton 2008). Secondly, the monitoring section should talk about the research methodology (i.e. quantitative, qualitative or mixed approach) to be adopted in order to answer the research questions developed. This should be followed by the description on various methods that will be used for data collection (Morra Imas and Rist, 2009; Newcomer et al., 2015). However, none of the plans have followed this step-by-step process of explaining the evaluation design in the monitoring sections.

Most plans include very general details on monitoring in their monitoring section, including a list of factors that shall be considered while evaluating the plans on an ongoing basis. These factors generally include population, employment and housing trends, intensification targets, watershed and sub-watershed targets, industrial land supply and land absorption, parks and community facilities and transportation infrastructure. Some plans have very brief list of these factors whereas some have a very comprehensive list. The important thing to note here is that the more detailed policies on monitoring of these factors are mentioned in their respective thematic chapters in the Official Plan. For instance, various monitoring studies (parking, traffic volume etc.) required to track the progress of transportation infrastructure policies are mentioned in the transportation chapter of the Official Plan. This implies that monitoring

sections of the Official Plans are not self-explanatory in terms of describing all the monitoring requirements in the plan.

The Official Plans of five cities/towns –i.e., London, Whitby, Pickering, Sarnia and Milton - have indicated they intend to develop a monitoring program to measure the effectiveness of policies. However, apart from this single statement, no other details on such monitoring programs is present in the plans.

For example, the Official Plan of the City of London has eight key directions and “Official Plan Monitoring section” of the plan states that “A London Plan Monitoring Program” will be developed which will include the key performance measures to monitor the progress made under those key directions (City of London, 2019, p. 451). The plan also states that the process of developing the key performance measures will be done with public engagement. However, apart from these two statements, no other details on monitoring program are discussed in the plan including the research questions to be addressed, research design to be followed for evaluation, indicators for monitoring the progress under various plan policies and reporting of results. Also, no reports on Official Plan monitoring were found on the City’s official website. The monitoring section mostly discusses about the details of amending the plan based on the five year review of the plan.

The Town of Whitby Official Plan and the City of Sarnia Official Plan in their ‘Monitoring’ section states that a monitoring program will be established in order to ensure that the policies and goals of the plan remain relevant and meaningful to the changing social, economic and environmental changes (Town of Whitby, 2018, section 9.4, p. 133; City of Sarnia, 2014, section 7.6, p. 150). The plans also listed various matters than can be monitored and reported to the Council on a regular basis which includes development trends, population and employment trends, housing targets, industrial land supply, transportation infrastructure, parks and community facilities and many more. This list is common in various other plans. However, apart from just listing these various monitoring considerations, no monitoring reports or studies are found which fulfil the provisions mentioned in these plans.

The Official Plan of the Town of Milton in its 'Official Plan Management Policies' section has developed some policies for monitoring the progress of plan's policies on a regular basis (Town of Milton 2008, section 5.3.3, p. 266). The plan states that selected indicators will be monitored in order to evaluate or identify the policies which may require modifications or amendments. The plan also states that a Geographic Information System will be developed by the town which will provide information to make informed decisions about land use and other requirements of the public. Developing a housing related information base including total number of residential units constructed by number and type, existing housing stock and accommodation costs is also indicated in the plan. The results of these three components of monitoring program will be outlined in a report on a regular basis. However, no such report is found on the town's official website. The monitoring section in the Official Plans should also describe the following:

- Staff roles and responsibilities in carrying out various monitoring and evaluation activities (Patton, 2003),
- Stakeholder engagement process explaining where and how these stakeholders will be involved in the evaluation exercise (Laurian et al., 2010; Kusek and Rist, 2004) and,
- Various communication strategies that will be adopted in order to disseminate the evaluation findings in the formats that fulfil the various stakeholders' information needs (Bamberger et al., 2012; McDavid, Huse and Hawthorn, 2019).

However, no Official Plan includes details on these important elements of plan evaluation. The City of Pickering Official Pan is only plan in the study which includes a separate policy on involving public in a monitoring program stating "City Council shall seek the help and assistance of other levels of government, agencies, groups and individuals, in designing and implementing the quality of life monitoring program" (City of Pickering, 2018, Section 17.1, p. 388). Apart from this single statement, no details on how and at what stages these agencies or groups will be involved in the process are mentioned in the plan. Absence of this parameter in the Official Plans will not increase the awareness of the stakeholders and end-users about the monitoring and evaluation. Furthermore, very vague statements or details on the evaluation process can undermine the importance of plan evaluation exercise.

4.2 Official Plan Monitoring:

4.2.1 City of Markham

Markham is a lower tier municipality in York Region with a population of 328,966 in 2016, making it the largest city in the region and the fourth largest in the Greater Toronto Area (GTA) (Statistics Canada, 2016). From the past few decades, Markham has experienced a significant population boost and has become a major employment centre in York region and GTA (City of Markham, 2018).

The Council of Markham approved its Official Plan in December 2013 and it was approved by the York Region in June 2014. The Monitoring section in the Implementation Chapter lays a foundation to develop a framework to monitor growth and progress related to policies mentioned in the plan (City of Markham, 2018, Section 10.12, p.10-34). In relation to this, the city has prepared “The Monitoring Growth in the City of Markham – Performance Indicators Report” in June 2020 which is the initial step taken by the city to track the Official Plan progress. In this report, various performance indicators are developed to measure the progress of policy objectives mentioned in the City’s Official Plan (City of Markham, 2020).

Performance Indicators:

The development and arrangement of indicators is done based on the thematic chapters/areas of the Official Plan. However, in this report, indicators related to only three thematic chapters are developed. The report indicates that additional indicators under remaining thematic areas of the Official Plan will be identified in the future monitoring reports (City of Markham, 2020, p.3).

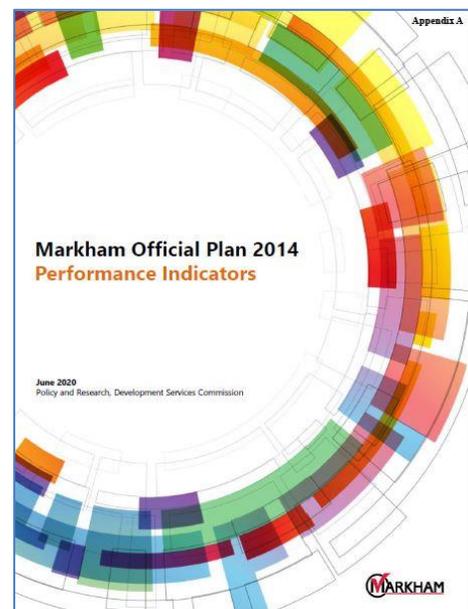


Figure 4.1: Markham Official Plan 2014 Performance Indicators Report

The three thematic areas and the indicators identified under them are as follows:

1. Sustainable Growth:

- Population and Employment Growth
- Residential Intensification Rate
- Regional Centre Density
- Designated Greenfield Density

2. Building Complete Communities:

- New Housing Supply by type
- New Housing Affordability
- Protection of Cultural Heritage Resources

3. Increasing Mobility Options:

- Modal Split
- Residents Within 800 Metre Walking Distance of Higher Order Transit

Identification of these indicators was based on the three parameters i.e. data availability, tracking practicality and degree of relevance towards goals and objectives of Official Plan. Moreover, the following information is provided for each indicator in the report:

- What is Being Measured?
- Official Plan Policy Reference
- Reason to measure and Monitor
- Results and Progress

Most of the indicators concern monitoring population and intensification targets which are mandated by the provincial policies. All the indicators are quantitative in nature and no qualitative indicators are included. However, the report has set up a link between the indicators and Official Plan policies enabling to easily interpret the outputs or results under the specific goals or objectives of the plan.

Plan Evaluation Report

As per the ideal condition, the plan evaluation report should have the following elements:

- *Executive Summary* consisting of highlights of the evaluation including key messages
- *Introduction* identifying purpose and structure of evaluation and also the method to interpret findings and recommendations.
- *Explanation of the plan context* identifying the importance, role and key characteristics of the plan itself.
- A brief discussion on *Evaluation Process* consisting details of evaluation design including research design, evaluation steps and rational for each step.
- *Findings and Conclusions* section having detailed findings, its implications, intended and unintended outcomes and impacts.
- Finally, a section of *Recommendations* identifying recommendations based on the conclusions in terms of what needs to be done, when, how and by whom.

Key observations of the City of Markham's Plan Evaluation Report:

- The report does not include a section on executive summary and starts with an introduction section. The introduction section mainly explain the Official Plan context in detail including vision of Official Plan, why the plan is important for sustainable growth, indicators for Official Plan and why they are important for monitoring and evaluation.
- There is no description of plan evaluation research design, research methods used to collect data, and steps taken to monitor and evaluate the plan.
- The findings under each indicator are presented in the report. Each indicator is linked to the Official Plan policy to express that why evaluating a particular indicator is important. Various charts and graphs are used to present the data and findings making it easier to correlate with the previous trends.
- Recommendations based on the findings form each indicator are missing from the report.

Overall, the report was incomplete and not well organised. The only strength of the report was that the findings were detailed and were provided with credible evidence. Therefore, considering a fact that it is the initial step by the municipality in evaluation and reporting findings, there is a considerable room for improvements in future reports.

4.2.2 City of Pickering:

The City of Pickering is a lower tier municipality in Durham region and is located in Southern Ontario. The city has a population of 91,771 in 2016 and covers an area of 231 sq. km. (Statistics Canada, 2016). Major urban centres such as Markham and Toronto are located in the immediate West of the city and Lake Ontario touches the boundary of city in the South. City experienced a major population boost during the post war period as many people from Toronto were settling in the suburbs of the city because of Toronto's continuous growth. However, in the past 20 years, the city has witnessed a very slight increase in the population growth (City of Pickering, 2018).

The Monitoring Framework chapter of the city's Official Plan states that the city will establish "quality of life" monitoring program in order to track the progress on key indicators of the health and liveability of the city (City of Pickering, 2018, Chapter 17, p.387). A comprehensive list of quality of life indicators and performance targets related to each indicator is provided in the Appendix I of the plan (City of Pickering, 2018, p.391). However, despite being the only plan in the study having included the detailed list of indicators in the plan itself, no monitoring study or report on indicators is found on the city's official website.

Indicators:

The Official Plan of the City of Pickering is the only Official Plan which includes a list of indicators in the Plan. The plan has adopted a total of 52 quality of life indicators for each chapter mentioned in the plan. Each indicator has its own performance target to be achieved by 2016 (City of Pickering, 2018, p.391). The monitoring section acknowledges that both quantitative and qualitative indicators will be established in the monitoring program. However,

in the list of indicators, only quantitative indicators are adopted and no qualitative indicators collecting information regarding people’s opinion and perception are included.

The City of Pickering Official Plan is the only plan that consists a specific policy to involve the public in the monitoring program. The monitoring section includes only one statement in relation to this stating that the “City Council shall seek the help and assistance of other levels of government, agencies, groups and individuals, in designing and implementing the quality of life monitoring program” (City of Pickering, 2018, Section 17.2, p. 388). However, how and at what stages these groups and individuals will be included in the monitoring program is not explained in the plan.

4.3 Growth Management Monitoring or Housing and Employment Targets Monitoring:

4.3.1 City of Kitchener

The City of Kitchener is the largest lower tier municipality in the Region of Waterloo and is located in South-western Ontario. The city has population of 233,222 in 2016 and an area of 136.9 sq.km. (Statistics Canada Census, 2016). The city has experienced a significant growth since its Official Plan adoption in 1994. A population increase of 12.2% has occurred in the city from 2006 to 2016 (Statistics Canada Census, 2016).

City’s Growth Management Monitoring Report:

The City’s growth management report provides updates on the progress made under the Kitchener Growth Management Strategy (KGMS). The Strategy was developed in 2009 and provides a long-term framework to plan for future residential and employment growth to be accommodated within the city (City of Kitchener, 2019b, p. 3-6). In order to ensure that the quality of life is being contributed

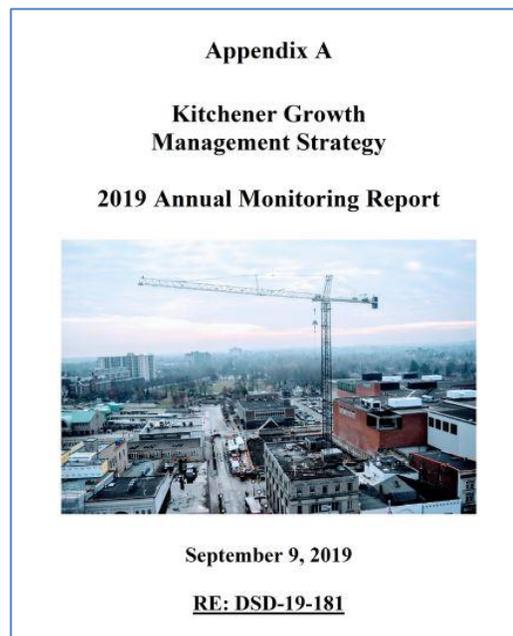


Figure 4.2: Kitchener Growth Management Monitoring Strategy, 2019 Annual Monitoring Report

by growth, KGMS tries to coordinate the provision of services and infrastructure with new development. Goals and actions mentioned under the KGMS align and support the Ontario's 2006 Growth Plan for Greater Golden Horseshoe (Growth Plan) and Regional Growth Management Strategy (RGMS) adopted for Region of Waterloo (City of Kitchener, 2019b, p. 3-6). Moreover, according to Kitchener Official Plan, this report is one of the ways by which the city measure its performance (City of Kitchener, 2019a, Section 17.E.2.9., p. 17-6).

Kitchener's Growth Management Strategy consists of a number of goals, of which six goals stresses developing and facilitating an ongoing growth management program in order to adjust and manage any growth related changes occurring within the city in a co-ordinated and effective manner (City of Kitchener, 2009, p. 15). One of the action items mentioned under this goal is to formulate an annual monitoring report in order to measure that up to what extent the city has achieved its density and intensification targets on an annual basis and to track the potential capacity of growth can be accommodated within the Built-Up Area (Intensification Areas) and in the Designated Greenfield Areas. The reports have been prepared annually since 2010 and are presented to Council and the development industry.

The City's Growth Management Monitoring report provides snapshots on the following matters:

- *Development applications received, approved and registered.* Development applications types include subdivisions, condominiums, part lot control and consents.
- *Residential Development Rates.* Overview of past development rates within the city based on the investigation of new building permits for residential units by dwelling type (Single Detached, Semi-Detached, Duplex, Townhouses, Multiple Dwellings).
- *Intensification Level.* Intensification targets achieved in the Built-Up Areas and Greenfield Areas of the city based on the new units creates by dwelling type during the last year.
- *Land Supply Estimates.* Total residential and employment land supply estimate in both Built-up and Greenfield Areas in the previous year.

- *Place to Grow and Regional Growth Management Strategy (RGMS) Implementation.*
Reflects on the growth and intensification targets achieved which are mentioned in the Provincial Growth Plan and RGMS.

4.3.2 City of Oshawa:

The City of Oshawa is the largest lower tier municipality in the Region of Durham with a population of 159,478 in 2016 and an area of 145.64 sq.km. (Statistics Canada Census, 2016). It is located on the North Shore of Lake Ontario, near about 60 km east of Downtown Toronto. The city of Oshawa is Region’s hub for transportation, business, entertainment and education and the gateway to the GTA (Greater Toronto Area) (City of Oshawa, 2018). A population increase of 11.2% has occurred in the city from 2006 to 2016 (Statistics Canada Census, 2016).

Housing Monitoring Report:

The housing chapter of the Oshawa Official Plan includes a small sub-section of monitoring which states that the city shall prepare an “annual housing report” to monitor and report progress under various housing policies and to improve the understanding and public awareness of housing issues faced by the city (City of Oshawa, 2019a, Section 6.8, p. 6.8). In lieu of that, the Development Services Department of the city is preparing the City of Oshawa Housing Monitoring Report since 1991 (City of Oshawa, 2019b). The report monitors various housing aspects:

- Existing Housing Supply: number of housing units by type, Rental vacancy rates, assisted housing
- Household Characteristics: persons per unit, family households, home ownership
- Subdivision Summary
- Residential Building Permit

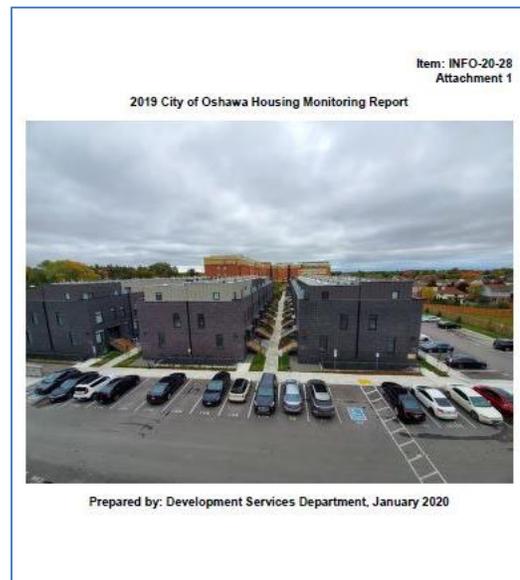


Figure 4.3: 2019 City of Oshawa Housing Monitoring Report

- Rental rates and Housing prices
- Residential Intensification
- Student Accommodation Strategy

The report also includes sections on the accomplishments made in the present year and the proposed actions for the next year. The results of the monitoring of the above mentioned aspects are submitted to Council through this report in order to inform the Council about various housing forms produced, housing supply, house prices, building permits issued and housing affordability.

The monitoring section in the city's Official Plan also states to regularly undertake the monitoring of indicators related to growth management objectives such as keeping a track of residential intensification targets in built-up areas and various other parts of the city, floor space index targets, population and employment growth targets (City of Oshawa, 2019a, Section 9.16, p. 9.14). However, with the exception of the monitoring of housing and intensification targets, no evidence of monitoring of other growth objective such as population and employment growth was found.

4.3.3 City of Cambridge:

Cambridge is a lower tier municipality in the Region of Waterloo with a population of 159,458 in 2016 and an area of 145.64 sq.km. (Statistics Canada Census, 2016). The city's strategic location on Highway 401 (MacDonald Cartier Freeway) has made it strongest economic and fastest growing areas in the country. The location of Cambridge in the heart of Canada's Technology Triangle which is known for various significant knowledge-based enterprises, has made the city's economic base strong and diverse (City of Cambridge, 2018).

Growth and Staging of Development Report:

The Official Plan’s monitoring and review section indicates that a monitoring program will be used to assess that the policies and objectives identified in the plan are achieved or not and the results of those monitoring system will be shared with Council (City of Cambridge, 2018, Section 12, p. 205). However, details on the monitoring process or the research design to be adopted are absent from the plan. The Official Plan also intends to formulate an annual Stage of Development Plan in co-operation with the Region of Waterloo in order to prioritize the development in particular areas to make sure that the services provided in the local and regional areas coordinates with each other (City of Cambridge, 2018, Section 12, p. 205). However, no such plan was found on City’s official website.

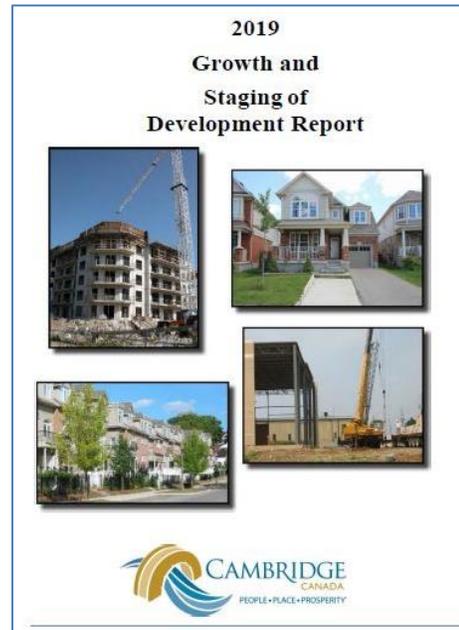


Figure 4.4: City of Cambridge Growth and Staging of Development Report 2019

For the purpose of monitoring growth in terms of residential growth only, the City prepares an annual “Growth and Staging of Development Report”. The major purpose of preparing this report is to meet the obligations specified by the Province. The 2014 Provincial Policy Statement (PPS) requires that, “planning authorities shall maintain at all times the ability to accommodate residential growth for a minimum of ten years through residential intensification and redevelopment and if necessary, lands which are designated and available for residential development” (Policy 1.4.1a). In addition, the PPS requires that, “planning authorities shall maintain at all times where new development is to occur, lands with servicing capacity sufficient to provide at least a three year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.” (Policy 1.4.1b). Therefore, the report satisfies both the requirements as it provides information on the requirements of sufficient employment and

residential lands to accommodate projected growth for the next 3 to 10 years and targets set by the Province and the Region (City of Cambridge, 2019).

The Report provides details on various aspects:

- Residential Inventory: Total number of residential units built for building permits were issued.
- Built Boundary targets: Total percentage of new residential units (by type) built in the built-up area boundary.
- Industrial land inventory: Availability of industrial land to achieve employment densities.
- Core Area Residential Growth: Total number of new building permits issued in core areas of the city.

The monitoring section of the Official Plan mostly includes policies to monitor the trends in residential development growth i.e. supply of housing stock by type, residential development in Greenfield areas and built-up areas of the city and also the supply of vacant employment land in order to accommodate new job creation (City of Cambridge, 2018, Section 12, p. 205 & 206). This report also meets the monitoring requirements set up by these Official Plan policies through keeping a track of the above mentioned aspects in the report.

4.3.4 City of Peterborough:

City of Peterborough is a single tier municipality with a population of 81,032 in 2016 (Statistics Canada Census, 2016) and is located on Otonabee River. Since 1996, the city has experienced an incremental population growth until 2011. The population increased by 2.7% from 1996 to 2001 and 5.1% from 2006 to 2011. However, the population growth decreased during the last census period and the city experienced a growth rate of 3% only (City of Peterborough, 2019b).

Residential Monitoring Report:

The City of Peterborough prepares annual residential monitoring report to serve two purposes. Firstly, the requirement of residential monitoring report is mandated by the Growth Plan for the Greater Golden Horseshoe 2019 (the Growth Plan) in order to ensure that the growth occurring in the cities falling in the Greater Golden Horseshoe (GGH) Region align with the policy directions mentioned in the Plan. Secondly, the implementation policies in the residential section of the city's Official Plan also indicates a desire to monitor the condition of residential development in the city (City of Peterborough, 2019b, p. 5). Therefore, in order to analyse and present the trends in residential development, a residential monitoring report is prepared by the City annually.

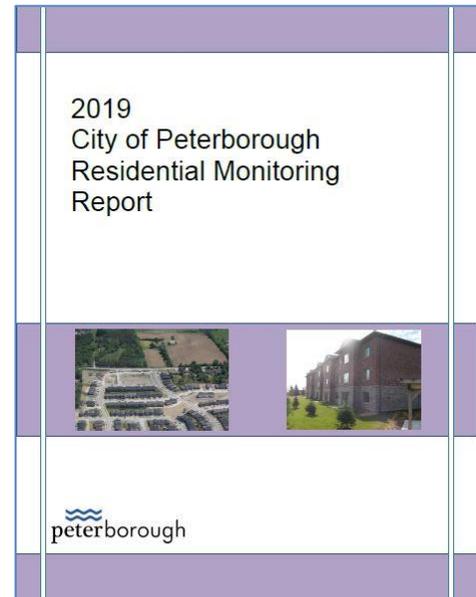


Figure 4.5: City of Peterborough Residential Monitoring Report 2019

Various sections included in the report are:

- **Population, Household and Economic Characteristics:** Various sub-sections in this section include population growth, demographics, average household size, median household income, unemployment rate and commuting patterns. This section provides an overview of how these characteristics influence the demand for housing in the city.
- **Growth Plan for Greater Golden Horseshoe:** This section provides an overview of whether the city is achieving the targets set in the Growth Plan.
- **Residential Land Supply:** This section provides an overview of the land supply requirements for short and long term durations set by the Provincial Policy Statement (PPS).
- **Residential Building Activity:** This section provides an overview of total number of building permits issued by type.

- Housing Market Trends: This section provides an overview about residential sales activity, vacancy rates, average market rents and average new house prices.
- Affordable Housing and Social Housing: This section provides an assessment of the city’s ability to achieve affordable housing targets set by the Official Plan.

4.3.5 City of Guelph:

The City of Guelph is a single tier municipality with a population of 131,794 in 2016 (Statistics Canada Census 2016). The city is located in the heart of Southern Ontario, approximately 100 km west from Toronto. City of Guelph is characterized by diversified industrial base and is home to renowned post-secondary institute i.e., University of Guelph (City of Guelph, 2012). Over the last two census periods, the city has experienced a population growth of 5.5% from 2006 to 2011 and 7.6% from 2011 to 2016 (Statistics Canada Census, 2016).

Growth Management and Affordable Housing Monitoring Report:

The managing growth section of the Official Plan consist a subsection on “Growth Monitoring” which states that the city will prepare a Growth Management Monitoring Report annually in order to monitor (City of Guelph, 2018, Section 3.21, p. 25):

- Any development activity that is taking place in the city is consistent with the population and employment forecasts.
- Intensification targets and density targets for built-up areas and greenfield areas.
- Supply of residential units in order to accommodate future residential growth as per residential policies mentioned in the plan.

Similarly, the affordable housing implementation policies section of the Official Plan has subsection on monitoring which states that the City will develop an “affordable housing monitoring program” which will monitor annually the following (City of Guelph, 2018, Section 7.2.6, p. 146)

:

- Type and number of affordable housing produced
- Benchmark prices for rental and ownership house prices
- Rental vacancy rates

- Affordable housing targets achieved mentioned in the Official Plan

In order to meet the growth and affordable housing monitoring requirements set by the Official Plan, the City prepares a “Growth Management and Affordable Housing Monitoring Report” annually. In the beginning of the report, its purpose is explained in which various Official Plan policies and targets related to growth management and affordable housing are mentioned (City of Guelph, 2019). The report also acknowledges that the main purpose of this report is to provide information on various targets set by the Official Plan and Provincial policies related to growth and housing supply. The report consists of various sections:

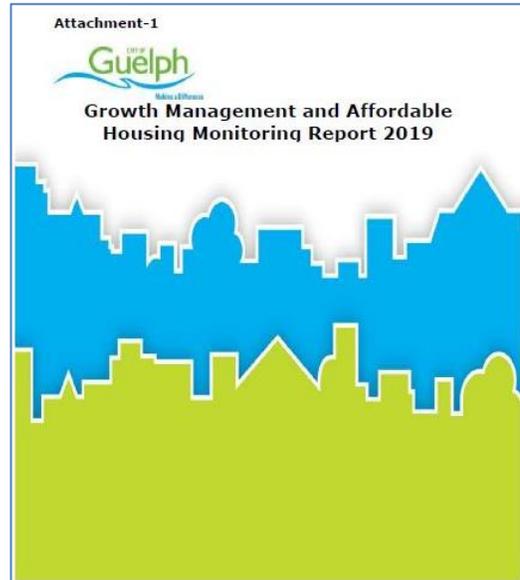


Figure 4.6: City of Guelph Growth Management and Affordable Housing Monitoring Report 2019

- **Population and Employment Forecasts:** This section provides an overview of achievements of population (number and density) and employment forecast achieved by the city.
- **Building Permit Activity:** This section provides an overview of total number of building permits issues by type during the previous year.
- **Housing Stock and Housing Supply:** This section provides an overview of achievement of housing forecasts and total residential land supply in the built-up and greenfield areas of the city in relation to the targets set by the Growth Plan.
- **Greenfield Area:** This section provides an overview of achievement of population and job density within the committed Greenfield lands.
- **Affordable Housing:** This section provides an overview of achievements of affordable housing targets, setting of affordable ownership housing benchmark prices and affordable rental housing benchmark prices for the upcoming year.

Therefore, this report meets the growth management and affordable housing monitoring requirements set by Official Plan policies.

4.3.6 City of Clarington:

The City of Clarington is a lower tier municipality in the Region of Durham with a population of 92,013 in 2016 (Statistics Canada Census, 2016). Being fully integrated into the GTA, Clarington has become a part of its strong economic base and demographic growth. This is presenting Clarington with various opportunities and challenges (City of Clarington, 2018, p. 1-1).

Growth Trends Review:

The Planning Services Department of the municipality of Clarington prepares an annual “Growth Trends Review Report” to provide updates on the population and employment growth policies and housing policies of the Official Plan (City of Clarington, 2019). The City has prepared this report annually since 2005. The report compares the development trends of municipality of Clarington with the Region



Figure 4.7: City of Clarington Growth Trends Review Report 2019

of Durham. This report fulfils the growth monitoring requirements set by the policies of Official Plan of Clarington and Region of Durham and also the Growth Plan of Greater Golden Horseshoe. The report provides updates on the following aspects:

- Total number of residential and non-residential building permits issued.
- Intensification targets achieved in the built-up area set by provincial policies
- Population and household growth forecasts
- Trends in house prices

The report does not include the achievements in meeting the affordable housing targets by the city which is also mentioned in the affordable housing policies of the city's Official Plan. However, description of initiatives to promote affordable housing in city is mentioned in the report.

4.3.7 City of Brantford:

The City of Brantford is a single tier municipality in Southwestern Ontario with a population of 97,496 in 2016 (Statistics Canada Census, 2016). It is located at the heart of the Golden Horseshoe, 40 kms from the City of Hamilton and 120 km from the City of Toronto. The city has experienced a steady growth rate in last two census periods i.e. 3.63% from 2006 to 2011 and 3.9% from 2011 to 2016 (City of Brantford, 2020b).

Annual Growth Management Monitoring Report:

The housing section in the city's Official Plan stresses maintaining a "Residential Monitoring System" which may include analysis of population growth and structure of the city; assessment of special housing requirements for senior citizens, people with disabilities, low and middle income groups and emergency housing; a review of residential units available by type and status within the municipality; and an assessment of the achievement of affordable housing targets (City of Brantford, 2020a, Section 13.3, p. 13-3). Therefore, the city prepares an "Annual Growth Management Monitoring Report" as a part of its residential monitoring system to maintain and report progress on above mentioned aspects (City of Brantford, 2018). The report discusses various elements:

- Residential intensification in Built-up Area and Designated Greenfield Area
- Population and Employment Growth
- Residential construction by units
- Land Supply in terms of three year supply and ten year supply.

Apart from this, the Official Plan has not developed any specific program for monitoring of other policies discussed in the plan.

4.3.8 Town of Whitby

Annual Housing Monitoring Report:

The Town of Whitby is a lower tier municipality in the Region of Durham, with a population of 128,377 in 2016 (Statistics Canada Census, 2016). The Official Plan of Whitby has a very detailed section on monitoring in the housing chapter which lists out various aspects that will be monitored under the ‘monitoring program for housing’ in order to ensure that housing needs are being met (Town of Whitby, 2018a, Section 7.8, p. 116). Therefore, the city prepares an “Annual Housing Monitoring Report” to report progress on housing policies. The report discusses the following elements:

- Total number residential lots registered
- Housing supply by total number of units and type
- Affordable, rental and assisted housing targets achieved
- Residential Intensification targets achieved

The progress under each of the elements is linked to the policies mentioned in the Official Plan. However, the report does not provide details on population and employment growth (Town of Whitby, 2018b).

4.4 Environmental Monitoring:

4.4.1 City of Windsor

The City of Windsor is a single tier municipality with a population of 217,188 in 2016 (Statistics Canada Census, 2016). Windsor is Canada’s southernmost city and is situated on the south shore of Detroit River and Lake St. Clair. The city is an international gateway for commerce and people as it serves as the chief port of entry between The United States and Canada (City of Windsor, 2013). Windsor also serves as the main population, employment and cultural centre in the Essex Region. The population of the Windsor declined from 2006 to 2011 by 2.64% and then in 2016, the population grew by 2.9%. Low population and job growth levels in Windsor

since 2001 was the result of restructuring of the North American manufacturing economy (City of Windsor, 2013).

Report on the State of the Environment (ROSE):

The Official Plan emphasises the preparation of the state of the environment report in order to monitor the city's progress towards achieving a healthy and livable city at intervals of every 5 years which will coincide with the review of Official Plan (City of Windsor, 2013, Section 10.9.3, p. 10-26).

The preparation of this report is mandated by the Environment Master Plan (EMP) in order to track the environmental performance of the city. The City's EMP not only focuses on improving the environmental performance but also incorporates social and economic aspects which are important to increase the overall health and quality of city residents (City of Windsor, 2017a). Therefore, state of monitoring report not only consist indicators related to tracking environmental performance but also social and economic well-being of the overall community.

The ROSE consist of various indicators categorised under 5 goals mentioned in the Environment master plan. Details of indicators are mentioned in the table below:

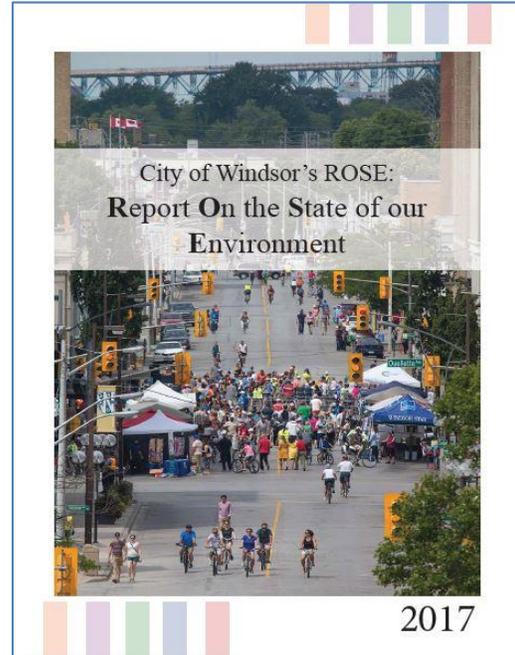


Figure 4.8: City of Windsor Report on the State of the Environment 2017

Table 4.2: Indicators adopted in ROSE:

Goal A: Improve Our Air and Water Quality
<ul style="list-style-type: none"> • Air Quality Index • Ground Level Ozone • Quality of Wastewater • Amount of Wastewater Treated • Wastewater Treatment Plant Bypass
Goal B: Create Healthy Communities
<ul style="list-style-type: none"> • Community Gardens • Trails • Population Density • Commuting • Sustainable Construction
Goal C: Green Windsor
<ul style="list-style-type: none"> • Natural Areas • Natural Heritage • City Owned Trees Planted and Removed • Amount of Maintained and Natural Parkland • Pesticide Use • Brownfield Conversion
Goal D: Use Resources Efficiently
<ul style="list-style-type: none"> • Energy Consumption • Solid Waste Management • Fuel Use • Greenhouse Gas Emissions
Goal E: Promote Awareness
<ul style="list-style-type: none"> • Web-Based Outreach • Attitudes Towards the Environment • Awareness of Environmentally-Related Programs

Source: City of Windsor’s Report on the State of Environment, 2017

The development of indicators is done with the consultation of a group of community partners and City staff and the selection of these indicators is based upon the easy availability of the data (City of Windsor, 2017b, p. 1). The data collected under this report is compared to the previous data collected for 2009 and 2013 ROSE reports in order to determine the trend under each indicator.

As mentioned above, the report does not only track environmental performance but also incorporates social and economic aspects. Therefore, some indicators provide a snapshot of social and economic progress within the city. For instance, indicators such as “community gardens” and “trails” are linked with increased social interactions among the residents. Increase in such facilities will increase the engagement among citizens, enhance active lifestyle and will ultimately lead to more vibrant and thriving neighborhoods. Similarly, indicators such as sustainable construction, energy consumption and fuel use help in analysing that up to what extent the city is moving towards economically as well as environmental efficiency.

All of the indicators mentioned in the report are quantitative except one indicator - i.e., “Attitudes Towards the Environment” which collects qualitative data regarding the perception and attitude of people regarding the city’s environment. This indicator talks about the analysis of the City of Windsor Environmental Attitudes Survey in which among various other questions, these following questions were asked (City of Windsor 2017b, p. 35 & 36):

- a. How would you rate the overall quality of the environment in the City of Windsor today?
- b. How do you feel about the amount of time and resources the City of Windsor spends on activities related to preserving and protecting the local environment? Would you say they are doing too much, about the right amount, or not enough?
- c. Compared to all of the issues facing the City of Windsor today, how high a priority do you think local leaders should place on preserving and protecting the local environment?

The report also acknowledges that analyses based on the survey allows the city to better assess and understand whether the efforts made by the City are making any significant changes to the quality of life of the residents, and the attitude and opinions of people towards those efforts.

4.4.2 City of Burlington:

The City of Burlington is a lower tier municipality in the Region of Halton with a population of 183,314 (Statistics Canada Census, 2016). Burlington is located on the western shore of Lake

Ontario, near about 70 km west of the Toronto city. Maclean’s declared the City of Burlington as “Canada’s Best Community” and “Best Community in Canada for Families” in 2019 (City of Burlington, 2021). The population growth rate of the city has declined a bit in the last census period and reached to 4.1% in 2016 as compared to the 6.4% from 2006 to 2011 (Statistics Canada Census, 2016).

The Official Plan of Burlington emphasises on the monitoring and evaluation of the goals and policies mentioned in the plan through the “quality of life indicators” (City of Burlington, 2019, Section 6.1, Part IV, p. 19). However, no such indicators are mentioned in the plan itself. Moreover, no monitoring report or study is found in relation to the quality of life indicators adopted by the city to track the Official Plan’s progress on the official website of the city. Similarly, the monitoring section in the Official Plan include a statement to develop a comprehensive monitoring program for housing to track the progress under housing policies, goals and objectives mentioned in the plan and to improve the ability of the city to respond to housing issues (City of Burlington, 2019, Section 6.1, Part IV, p. 20). However, no details on how such monitoring program will develop and what will be monitored (such as indicators) is included in the plan and no document or report is prepared by the city in this context. Apart from this, the plan also indicates to monitor the progress in ‘Sustainable Development’ within the city which is done through the preparation of State of Environment Report (SOER). More details on the SOER are provided below:

State of Environment Report (SOER):

The Official Plan for Burlington emphasises environmental monitoring in order to ensure that the policies for environment protection and sustainable development remains effective over an

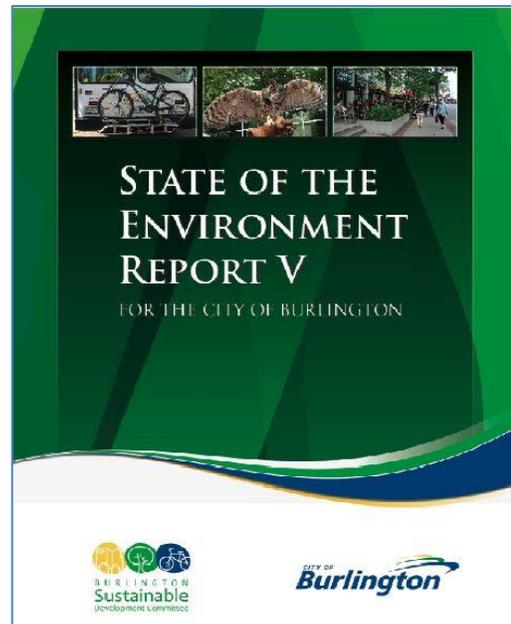


Figure 4.9: City of Burlington State of the Environment Report V 2015

extended duration of time (City of Burlington, 2019, Part IV, Section 6.3, p. 21). For this purpose, the Official Plan mandates the preparation of a State of Environment Report once every Council term. A total of 5 SOER are prepared by the city, latest being prepared in April, 2015. As per the report, the definition of environment not only includes the components of natural environment but also the community environment - i.e., urban and rural land uses (City of Burlington, 2015, p. iv). Therefore, the report tracks the progress not only on the factors that impact natural environment but also on the factors that impact the built environment. The report is divided into 11 themes, within each theme various issues are identified and each contains the following sections:

- Why it is measured?
- What is measured? – Indicators
- What was found? – Indicator values and trends
- What is happening to address the issue?

Table 4.3: Themes and Issues Identified in SOER

Natural Heritage	Land Use Planning	Rural Lands and Agriculture	Waste Management
<ul style="list-style-type: none"> • Natural Heritage System • EcoPark • Urban Forest 	<ul style="list-style-type: none"> • Demographics • Housing (Dwelling Units) • Intensification • Employment • Parks and Open Spaces 	<ul style="list-style-type: none"> • Rural Lands for Agricultural Use • Rural Lands • Urban Agriculture • On-farm Sales 	<ul style="list-style-type: none"> • Residential Waste Collection • Waste Diversion
Transportation	Energy	Air Quality	Water
<ul style="list-style-type: none"> • Personal Vehicle Transportation Choice • Public Transit • Walking and Cycling 	<ul style="list-style-type: none"> • Energy Production • Energy Consumption 	<ul style="list-style-type: none"> • Air Monitoring • Smog 	<ul style="list-style-type: none"> • Surface Water • Stormwater Management • Groundwater • Water Consumption
Wastewater	Climate Change	Sustainable Buildings and Development	
<ul style="list-style-type: none"> • Wastewater Effluent Quality • Biosolids • Effluent Quality 	<ul style="list-style-type: none"> • GHG Mitigation • Climate Change Effects and Adaptation 	<ul style="list-style-type: none"> • Green Buildings in Burlington 	

Source: SOER V, City of Burlington, 2015

The analysis under each issue is done using quantitative indicators only. No qualitative indicators are found in the report representing the people’s perception and opinion regarding any facility, service or issue. Moreover, no evidence of public consultation during the establishment of indicators is found.

4.5 Summary of Findings:

A significant gap has been observed in what the plans should look like in order to facilitate monitoring and evaluation, and the reality in practice. The graph below summarizes the results of content analysis of the Official Plans of all the mid-size municipalities by showing a gap between the scores gained by the plans compared to the best practices. The mean of all the Official Plan scores is calculated as 1.65, which is far to less and represents the state of Official Plans in terms of including the provisions of monitoring and evaluation.

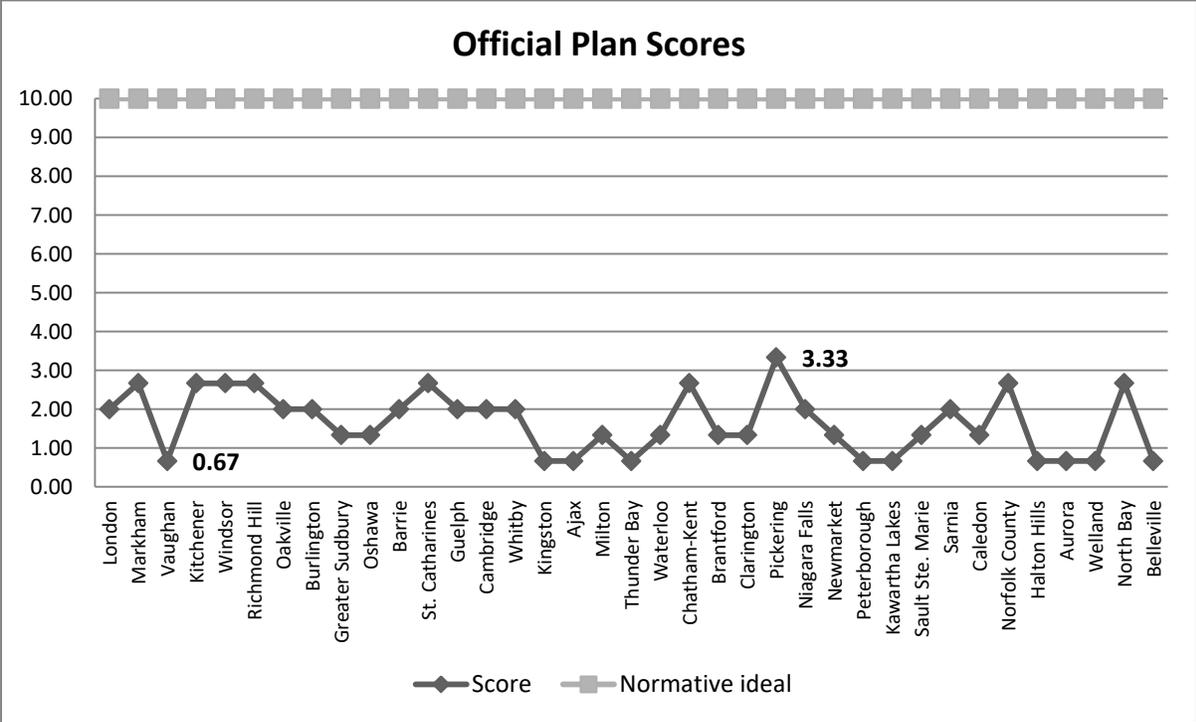


Figure 4.10: Official Plan Scores

The city of Pickering Official Plan received the highest score i.e. 3.33 and 10 Official Plans, maximum in number, received the lowest score i.e. 0.67. There is not much variation in the provisions of monitoring and evaluation in the Official Plans.

The most common parameters which are observed in mostly all the Official Plans are separate section/chapter on monitoring and evaluation, rationale for plan evaluation, frequency of monitoring and evaluation tasks/plan update timeline and quantifiable goals and policies which were mostly limited to population and employment growth targets, intensification targets, employment and residential land supply estimates and up to some extent affordable housing targets and tree cover targets. Having a separate section on monitoring and evaluation with information on Official Plan update timeline is not surprising because the Planning Act mandates that the Official Plan must be reviewed and updated every five years. Moreover, quantifiable policies are limited to population and employment growth targets, intensification targets, employment and residential land supply estimates because these targets are identified in Growth Plan for the Greater Golden Horseshoe (2006, 2014) and Provincial Policy Statement (2005 and 2014).

All the other parameters i.e. description of research design and methods, research questions, responsibilities for monitoring and evaluation tasks, communication strategies and most importantly indicators for plan monitoring were missing from the plan. Only one plan - i.e., the City of Pickering Official Plan has a list of indicators included in the plan; a total of 52 quality of life indicators for each thematic chapter are mentioned in the plan.

The absence of clear provisions on monitoring and evaluation and indicator development is again not surprising considering the lack of directions from the provincial government. For instance, although the Provincial Policy Statement (2014 and 2020), informs the development of policies and goals for municipal Official Plans in the province, it has not developed monitoring and evaluation guidelines, especially from the perspective of indicator development. The PPS (2020) in its implementation section states that, "Municipalities are encouraged to monitor and report on the implementation of the policies in their Official Plans, in accordance with any reporting requirements, data standards and any other guidelines that may be issued by the Minister (p. 36)". Apart from this, there are no further guidelines which municipalities can adopt to develop monitoring and evaluation framework for assessing the progress of their plans. However, in 2014, the provincial government released a document

called “Provincial Policy Statement, 2005: Performance Monitoring Framework and Indicator Results” which includes performance monitoring principles and performance indicators developed by the province to assess the implementation of the policies mentioned in the PPS (2005).

Similarly, the Growth Plan for Greater Golden Horseshoe (2020) does not provide monitoring and evaluation guidelines. The Plan states that “province will develop a set of performance indicators to measure the effectiveness of the policies of this Plan” and “Municipalities will monitor and report on the implementation of this Plan's policies within their municipality” (p. 59). Apart from this statement, no further guidelines are provided. It was in 2015, the province released the document called “Performance Indicators for the Growth Plan for the Greater Golden Horseshoe, 2006” which included 14 indicators to measure the progress of policies mentioned in the Growth Plan (2006).

Current monitoring practices which include monitoring of only housing policies, growth policies and to some extent environment policies do not present the full picture on plan outcomes. Therefore, it can be concluded that there is a problem in conducting plan evaluation at the mid-sized cities in Ontario, but there is also an opportunity for improvement. The next chapter discusses comprehensively on key conclusions of the study and provide various recommendations to improve the plan evaluation practice at municipal level experience in Ontario.

5 CONCLUSIONS AND RECOMMENDATIONS

This chapter briefly concludes the results of the research and also provides various strategies and recommendations to strengthen plan monitoring and evaluation practice in municipalities along with the future research opportunities.

5.1 Revisiting the Research Questions:

This research aimed to investigate the extent to which the mid-sized cities evaluate their Official Plans. This was accomplished through 3 research objectives: by (1) Identifying the parameters or elements that constitute as best practices for monitoring and evaluation in the literature, (2) identifying the current state of Official Plan evaluation in medium sized municipalities; and finally, (3) comparing and contrasting the current approach with the best practices mentioned in the literature. This exercise informs the gaps in the plan evaluation practice of mid-sized cities and provides various recommendations to strengthen it. Table 5.1 presents a summary of key findings for each research question:

Table 5.1: Revisiting Research Questions

Research Questions	Research Findings
<p>1. What factors constitute as best practices for monitoring and evaluation of plans?</p>	<p>Various factors that constitute as best practices for monitoring and evaluation of plans include:</p> <p>Quantifiable Goals/Objectives/Policies/Targets: Goals and objectives which are quantifiable and based on measurable objectives and/or targets (Berke & Godschalk, 2009; Morrison & Pearce, 2000).</p> <p>Separate Chapter/Section on Monitoring and Evaluation: Separate monitoring and evaluation chapter including detailing evaluation process (Berke & Godschalk, 2009; Berke et al., 2006b).</p> <p>Rationale for M & E and Expected Outcomes: Importance and need of monitoring and evaluation and the expected outcomes (Seasons, 2021).</p> <p>Research Questions to be answered through M & E: Content specific research questions that need to be answered (Rossi, Freeman, and Lipsey, 1999; Seasons, 2021).</p>

	<p>Description of the research design and methods: Research approach (quantitative/qualitative/mixed) and related methods to be used.</p> <p>Who is Involved (how and what stage): Participation of clients and stakeholders in the evaluation process (Alexander, 2006).</p> <p>Responsibilities for Monitoring and Evaluation: Responsibilities undertaken by different departments and staff for different tasks (Patton, 2003).</p> <p>Frequency of M & E: Frequency of conducting monitoring and evaluation tasks (Berke & Godschalk, 2009; Berke et al., 2006b).</p> <p>Dissemination of Information or Results/ Communication Strategies: Process of disseminating evaluation findings to diverse stakeholders (Bamberger et al. 2012; Alexander, 2006).</p> <p>Integration of goals, objectives, policies and indicators as self-thematic chapters: Identified indicators within each thematic chapter (Seasons, 2021).</p> <p>Indicators: Type/Process of generating the indicators: Inclusion of both quantitative and qualitative indicators (Laurian et al., 2010; Carmona & Sieh, 2005).</p>
<p>2. What is the state of plan evaluation practice in Ontario’s mid-sized cities?</p>	<p>Some of the main findings from this research include:</p> <ul style="list-style-type: none"> • Only one municipality has made an effort to evaluate the Official Plan out of all the 37 municipalities. • The Majority of the municipalities are monitoring growth trends, including population and employment forecasts. • Other major monitoring efforts include monitoring of intensification policies and density targets, residential growth including building permits and land supply estimates including residential and employment land supply.
<p>3. Is the current practice in mid-sized cities consistent with the ideal condition and best practices discussed in the plan evaluation</p>	<p>Significant gap was found between what is called the best practices for planning and the current evaluation practice in mid-size cities.</p> <ul style="list-style-type: none"> • Monitoring and evaluation practice in mid-size cities of Ontario is at a rudimentary stage. • Official Plans are not written in a manner to facilitate monitoring and evaluation. • Monitoring and evaluation provisions in the Official

literature?	<p>Plans are very weak.</p> <ul style="list-style-type: none"> • Most of the plans have different sections on plan monitoring but contain no information evaluation process including research design, indicators and communication strategies.
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5.2 Key Conclusions:

There is a significant gap between what constitutes best practices for plan monitoring and evaluation as explained and discussed in the literature, and the reality of practice in the mid-sized municipalities in Ontario. The experience of Ontario’s mid-size cities with comprehensive community plan monitoring and evaluation appears rather rudimentary at this stage. Following are some of the key conclusions derived from the study:

1. *Plan evaluation practice remains underutilized at the municipal level government in Ontario:*

Despite being familiar with the numerous benefits of monitoring and evaluation, plan evaluation practice remains underutilized at the municipal level government in Ontario. As per best practices, municipalities should monitor and evaluate their Official Plan by developing relevant indicators that can monitor the progress made under the policies of the plan. Since this is a document that guides community’s long-term development, the Official Plan should be regularly monitored and evaluated to ensure the currency and relevancy of policy direction and to identify whether the plan is making the desired progress. However, only one out of thirty-seven municipalities has made an effort to regularly conduct Official Plan evaluation: the City of Markham. None of the other municipalities have conducted Official Plan monitoring and evaluation. Many municipalities intend to develop monitoring frameworks to assess the progress of their respective Official Plan policies, but no monitoring reports and documents are found for these municipalities.

2. *Municipalities rely on output-focused indicators in order to monitor progress:*

All municipalities in this study rely on limited output indicators to measure the progress of the limited policies of the plan. With regard to best practices, the municipalities should use both output and outcome-focused indicators in to measure the progress and to present the whole picture of impacts of the planning intervention.

The output indicators are quantitative in nature and typically measure the number of products and services produced in order to measure the progress of planning interventions. These output indicators measure progress in numeric terms and examples of these indicators include population and employment trends, number of building permits provided, residential units built by type, density targets, water or air quality, changes in housing prices and basic transportation related data such as modal split. There is no or very limited use of qualitative indicators that can capture people's perception about the planning interventions and the degree of change made by the plans. This restricts the ability to determine the impacts made or outcomes achieved by the plan outputs. I speculate that the reason for the underuse of qualitative monitoring indicators in the municipalities is that qualitative research requires considerable energy, time, expertise and resources to design and manage efficiently and effectively. Most mid-sized cities lack that capacity or those resources.

3. *Monitoring efforts are limited to some specific policies of the Official Plan:*

The municipalities' major monitoring efforts include only monitoring of housing/residential policies, growth management policies and to some extent environmental policies. These policies include population and employment growth trends, achievement of intensification and density targets, number of building permits provided, number of development applications approved, residential and employment land estimates in Built-up areas and Greenfield Areas, monitoring of rental rates and housing prices and achievement of affordable housing supply targets.

However, as per the relevant literature, these monitoring efforts should be extended to the policies mentioned in the other thematic chapter of the plan as monitoring of the

above mentioned policies in isolation will not determine the outcomes and impacts achieved by the whole plan. These policies are monitored mainly because the Growth Plan for the Greater Golden Horseshoe (2014 and 2020) mandates the monitoring and reporting the progress under these policies by all the municipalities falling under its boundary.

4. *Official Plans are not written in a way that facilitates monitoring and evaluation:*

The writing and structure of plans should facilitate monitoring and evaluation. This includes having quantifiable policies, having separate chapter on monitoring and evaluation consisting of evaluation research questions, research design and research methods, roles and responsibilities of various departments, process of stakeholder engagement and communication strategies. However, most of these elements are missing from the plans studied. Quantifiable policies are usually limited to population and employment growth, intensification, residential and industrial land supply and land absorption targets and up to some extent affordable housing and tree cover targets. The plans do not explain the evaluation process and methods. The plans mostly contain vague statements on monitoring and evaluation in their evaluation sections. The list of indicators to monitor the progress is usually absent from the plans.

I speculate that one of the major reasons for the under-performance of monitoring and evaluation in the municipalities is the lack of institutional capacity. The majority of these municipalities do not have an adequate number of expert staff on monitoring and evaluation, as well as technical resources such as data management and research capacity that is required for a credible evaluation exercise. This is represented by the way the monitoring and evaluation sections are written compared to the other sections of the plans which are usually very comprehensive. Moreover, previous research done by Seasons (2003a) indicated that many municipalities perceive the process of monitoring and evaluation to be too complicated and lengthy and not useful in decision-making process which is why many municipalities do not confide in monitoring and evaluation.

Therefore, considering the current practice and monitoring and evaluation efforts, there is considerable room for improvements and recommendations that will help municipalities strengthen plan evaluation practice.

5.3 Key Recommendations:

There are many aspirational statements about monitoring and evaluation in the Official Plans which contradict the current practice. Therefore, the key is to somehow move these municipalities towards actually doing something tangible and meaningful with their plan monitoring and evaluation commitments. The following recommendations might help the planners in these municipalities to develop and apply a feasible plan monitoring and evaluation strategy:

1. Strengthen the role of provincial government in education and training, enforcing plan monitoring and evaluation:

There is a need for more guidance from the provincial government when it comes to developing monitoring and evaluation frameworks and establishing indicators. A study conducted by Guyadeen (2017) concludes that the contents of plans rely heavily on explicit directions from the provincial government. The content analysis in this research also proves that the provisions of monitoring and evaluation in the plans are weak because there are relatively fewer directions given in the Provincial Planning Policy (2020) and the Growth Plan for the Greater Golden Horseshoe (2020). These two documents, and the Planning Act of Ontario, focus more on the other contents of the plan such as formulation of goals and policies and little or no directions are provided to measure the outcomes of the plan. Therefore, there are opportunities for the provincial government to enforce its requirements for regular plan monitoring and evaluation under the Planning Act. Moreover, explicit direction on the development of monitoring frameworks and indicators should be provided in Provincial policies and plans.

2. *Plans should be written in such a way that it facilitates monitoring and evaluation:*

The contents and style of Official Plans need to be written with monitoring and evaluation in mind. The key in this regard is vertical integration. Each theme-based chapter of the plan should be self-contained; the thematic goals, objectives and policies should be supported by a foundation of relevant indicators (Seasons, 2021). This will help in linking the plan inputs with the outputs and outcomes. In addition, the plan should have a separate chapter explain the whole evaluation process and model including the purpose of evaluation, evaluation research questions, research design and research methods, roles and responsibilities of various departments, the process of engaging the stakeholders and clients in the process of evaluation, frequency of monitoring and evaluation and finally, explanation of different communication strategies adopted to meet the information needs of diverse stakeholders (Berke & Godschalk, 2009; Berke et al., 2006b; Laurian et al., 2010; Carmona & Sieh, 2005; Patton 2003).

3. *Building Institutional Capacity:*

All the participants in the plan evaluation exercise - i.e., end-users (planners, senior administration and elected officials) and stakeholders (community residents and representatives from other departments and agencies) - need to be educated and trained about the various elements of the plan evaluation exercise (McDavid and Hawthorn, 2006). This involves making them understand about the significance and purpose of evaluation and informing about their roles in the plan evaluation exercise (Bryson and Patton, 2010; Bryson, 2004; Patton, 2003). Planners should be trained in evaluation theory, models and process design and management. This should happen in university planning programs. Once in the practice world, planners should be trained through continuous professional learning programs that could be offered by national planning institutes (e.g. the Canadian Institute of Planners in Canada), and/or by universities and colleges (Seasons, 2021).

Organizational culture and the attitude of planners, senior management and politicians towards plan monitoring and evaluation also pose a challenge to plan evaluation practice in municipalities. Many organizations usually want to avoid criticism which the monitoring and

evaluation exercise may bring, that is why they consider it threatening (Seasons, 2003a). Therefore, educating and training the influential people and major decision makers in the organisation may help in gaining their support throughout the evaluation exercise (Chaplowe and Cousins, 2016; Wong, 2011).

4. *Formulating Policies, Goals and Objectives that are evaluable/quantifiable:*

This research indicates that the policies and goals mentioned in the plan are vaguely written, except some of the policies related to intensification and population and employment growth. The important thing to note here is that the intent to monitor and evaluate the progress is represented in the policies of each thematic chapter of the Official Plans, but no targets representing the degree of change and the timeline to achieve those targets are mentioned in the policies which make them unquantifiable. This results in difficulties in isolating the information required by the planners to develop indicators. Therefore, plans need to have policies that reflect the anticipated outcomes and impacts, or in other words, the policies should describe in measurable terms what differences the planning interventions will make. Articulating these elements explicitly in the Official Plans is critical for the plan evaluation exercise (Berke & Godschalk, 2009; Morrison & Pearce, 2000).

5. *Enhance the Use of Outcome-Focused Indicators:*

In order to move beyond the outputs achieved by the planning interventions to outcomes and impacts made by the planning intervention, it very critical to develop and include outcome-focused indicators in the plans. Outcome indicators are often qualitative in nature and can provide insights about the effectiveness or the degree of change made by the planning intervention (Wong, 2011). The outcome indicators reflect the people's perception about the planning interventions - i.e., percentage of people satisfied with the policy initiatives. Therefore, these indicators represent the whole picture of whether the plan has achieved its desired impacts and outcomes.

The planners in the study municipalities need to use the combination of both output and outcome focused indicators in order to monitor the progress of the planning intervention

made by them. Moreover, the process of selection of the indicators should be inclusive - i.e., include stakeholders, decision-makers and planners (Baum, 2001; Holden, 2006). This will help planners to maximum buy-in for the plan monitoring and evaluation process (Cabaj, 2010).

6. *Design and implement a streamlined, simple to manage plan evaluation model/process:*

Planning departments need to design and manage simple and straightforward evaluation models for evaluation their official plans that are not over-ambitious (Seasons, 2021). These evaluation models should become be integrated into the decision-making environment of the planning department. Development and selection of indicators should be done in consultation with the stakeholders to make sure only required and relevant data is collected during the monitoring process to avoid ineffective and inefficient resource use. Quality of indicators should be given more importance rather than quantity. Moreover, the design of monitoring and evaluation process should be based upon the organization's resource constraints (Carmona & Sieh, 2005, 2008).

5.4 Value Proposition:

Planners often face difficulties in determining whether planning decisions and the interventions made were successful or whether the work done by them is "good" or "bad" (Alexander & Faludi, 1989). As a result, they may keep on repeating mistakes and miss opportunities, which is problematic. In this situation, planners would not be able to recognize and celebrate their own many successes. Moreover, planners would have to face the consequences of their inaction or poorly designed plan evaluation exercise (Seasons, 2021). Therefore, in order to avoid such consequences, plan evaluation should be integrated into the planning framework. Plan evaluation can provide planners with the evidence of what worked and what did not. Evidence of plan efficiency and effectiveness can enhance the overall planning practice. Moreover, evaluation can make planners self-reflective practitioners as it provides knowledge and information about the past experiences i.e. what outcomes the past initiatives have resulted in, which further helps in informing the future decisions of the planners in determining what is best applicable to their respective situations (Schon, 1983; Gibbs, 1988).

5.5 Future Research Opportunities:

This research has provided findings based on a content analysis of the Official Plans and other monitoring reports of all the mid-sized municipalities in Ontario. This research has discovered “WHAT” is happening in these municipalities in terms of comprehensive community plan monitoring and evaluation. However, this research has not addressed the element of “WHY” these municipalities are under-performing in plan evaluation practice, or the reasons that impede plan evaluation practice in these municipalities.

Therefore, there are opportunities for research that builds upon this initial foray into the world of plan evaluation in mid-size cities. It would be useful to explore the “story behind the facts” – the reasons for action (or inaction) by planners and planning departments. Research that uses online survey technology, and key informant interviews, would complement this first stage of research and illuminate the context for plan evaluation in these mid-sized cities.

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Appendices

Appendix I

Table 6 Content Analysis Matrix

City	Status	Population	Year of Official Plan Adoption	Year of Official Plan Consolidation	Conducted Official Plan Monitoring (Yes/No)	Official Plan Parameters													Total Official Plan Score	
						Quantifiable Goals and policies or Targets for objectives	Separate Chapter/Section on Monitoring and Evaluation	Rationale for M & E and Expected Outcomes	Research Questions to be answered through M & E	Description of the research design and methods	Who is Involved (how and what stage)	Responsibilities for Monitoring and Evaluation	Frequency of M & E	Dissemination of Information or Results/Communication Strategies	Integration of goals, objectives, policies and indicators as self-thematic chapters	List of Indicators	Type of Indicators	Process to develop Indicators		
London	Single Tier	383,822	2016	2019	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Markham	Lower Tier	328,966	2014	2018	Yes	1	1	1	0	0	0	0	1	0	0	0	0	0	0	2.667
Vaughan	Lower Tier	306,233	2010	2019	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Kitchener	Lower Tier	233,222	2014	2019	No	1	1	1	0	0	0	0	1	0	0	0	0	0	0	2.667
Windsor	Single Tier	217,188	2013	2013	No	1	1	1	0	0	0	0	1	0	0	0	0	0	0	2.667
Richmond Hill	Lower Tier	195,022	2010	2020	No	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2.667
Oakville	Lower Tier	193,832	2009	2018	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Burlington	Lower Tier	183,314	2008	2019	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Greater Sudbury	Single Tier	161,531	2006	2019	No	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.333
Oshawa	Lower Tier	159,458	2016	2019	No	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.333
Barrie	Single Tier	141,434	2010	2018	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
St. Catharines	Lower Tier	133,113	2010	2018	No	1	1	1	0	0	0	0	1	0	0	0	0	0	0	2.667
Guelph	Single Tier	131,794	1994	2018	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Cambridge	Lower Tier	129,920	2012	2018	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Whitby	Lower Tier	128,377	1994	2018	No	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2.000
Kingston	Single Tier	123,798	2009	2019	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Ajax	Lower Tier	119,677	2000	2016	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Milton	Lower Tier	110,128	1997	2008	No	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.333

Thunder Bay	Single Tier	107,909	2018	2018	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Waterloo	Lower Tier	104,986	2012	2020	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Chatham-Kent	Single Tier	101,647	2008	2018	No	1	1	2	0	0	0	0	0	0	0	0	0	0	2.667
Brantford	Single Tier	97,496	1987	2020	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Clarington	Lower Tier	92,013	1996	2018	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Pickering	Lower Tier	91,771	1997	2018	No	1	1	2	0	0	0	0	0	0	0	1	0	0	3.333
Niagara Falls	Lower Tier	88,071	1993	2019	No	1	1	1	0	0	0	0	0	0	0	0	0	0	2.000
Newmarket	Lower Tier	84,224	2006	2016	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Peterborough	Single Tier	81,032	1981	2019	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Kawartha Lakes	Single Tier	75,423	2010	2012	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Sault Ste. Marie	Single Tier	73,368	1996	2006	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Sarnia	Lower Tier	71,594	2014	2014	No	1	1	1	0	0	0	0	0	0	0	0	0	0	2.000
Caledon	Lower Tier	66,502	-	2018	No	1	1	0	0	0	0	0	0	0	0	0	0	0	1.333
Norfolk County	Single Tier	64,044	2006	2020	No	1	1	1	0	0	0	0	1	0	0	0	0	0	2.667
Halton Hills	Lower Tier	61,161	2008	2020	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Aurora	Lower Tier	55,445	-	2010	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Welland	Lower Tier	52,293	1952	2019	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
North Bay	Single Tier	51,553	-	2012	No	1	1	1	0	0	0	0	1	0	0	0	0	0	2.667
Belleville	Single Tier	50,716	2001	2020	No	1	0	0	0	0	0	0	0	0	0	0	0	0	0.667
Total		4,852,077				37	27	21	0	0	0	0	6	0	0	1	0	0	61.333
Score						5	7.29	2.83	0	0	0	0	1.62	0	0	0.27	0	0	1.65 (Mean Score)