

London Ontario SDG Indicators

A city-based set of indicators localized from the UN Sustainable Development Goal Indicators



London, Canada - 2020

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*UWEM - United Way Elgin-Middlesex
LCF - London Community Foundation
APHC - Aboriginal Policy Research Consortium
LHSC - London Health Sciences Centre
WGSI - Waterloo Global Science Initiative
SDSN - Sustainable Development Solutions Network
IISD - International Institute for Sustainable Development*

Executive Summary

This report presents a set of local indicators for London Ontario translated from 244 global indicators in the Sustainable Development Goals (SDGs) created by the United Nations. The local set provides a shared language among different sectors and fields to enable collaboration and a deeper understanding of complex societal problems.

It is important to recognize that the complex challenges our cities are facing today are all interconnected. Be it homelessness, climate change, precarious employment or the opioid crisis. To address those challenges in an effective way it is necessary to align the work and actions of disparate groups of local actors by creating a shared definition, common language and measurement for progress. The Sustainable Development Goals constitute a framework that has been adopted in different sectors and across different levels of government in Canada and around the world, integrating social, economic and environmental concerns.

In order to create a localized list of SDG indicators we developed a two-stage methodology. The first stage, "Global to Local" (Chapter 3), involved the development of a decision tree that determined which indicators were possibly applicable to the local context. The second stage, "Local to Global" (Chapter 4) examined the local knowledge base, including consulting local documents and area-experts, to determine which indicators were in fact relevant and where we needed to fill gaps in order to increase the likelihood of local buy-in to the framework.

The Global to Local stage of the analysis identified 140 applicable indicators and 104 non-applicable indicators. Among the applicable indicators, we identified that 98 indicators could be relevant as they are (maintain) and 42 required further modification (localize+proxy) in order to be relevant to a local context.

During the Local to Global stage, the local indicators were derived from the subset of the original indicators identified in the first stage based on 13 local documents and the input of 69 individuals from 41 organizations. The final result is a list of 116 local indicators that are relevant and specific to London, Ontario.

About the Report Partners

London For All initiative is a community's plan to end poverty in a generation. The impetus for the plan is a belief that a community cannot reach its potential when people lack or are denied the economic, social or cultural resources to participate. It is time to end poverty so that everyone gets the opportunity to reach their full potential.

City of London created the Mayor's Advisory Panel on Poverty in 2016 to develop a set of action-oriented recommendations on how we can address poverty more effectively as a community. The current project emerged from the City of London's poverty reduction strategy.

United Way Elgin Middlesex was named Lead Agency to implement the London for All strategy and it is the organization responsible to bring all partners together. United Way is a leader in understanding the root causes of social issues and bringing together people and resources to find lasting solutions. United Way works to create real change in people's lives – meaningful, positive, lasting change. Not just for today, but for the long term. And that means a better community for us all.

London Poverty Research Centre (LPRC) at King's was commissioned by the London For All implementation team to develop a framework based on the SDGs that can be used by different community partners to track progress of the London For All initiative moving forward. LPRC employs a range of research, knowledge mobilization, and community organizing approaches that are intended to move our community toward positive systemic changes. This includes the task of better understanding the context and consequences of poverty in London, exploring/implementing best-practices in creating change, and cultivating opportunities for collective impact.



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"When it comes to sustainable development, all countries are 'developing countries', ... as no one country has yet to achieve sustainable development."

Getting Started with the SDGs in Cities¹



1. INTRODUCTION

The main purpose of this report is to present a set of local indicators based on the Sustainable Development Goals (SDGs) framework integrating social, environmental, and economic targets for change. Through this work we aim to contribute to a shared language among different sectors (public, private, not-for-profit) and different fields (environment, social justice, and economy). The localization of this framework is intended to provide relevant information for assessing collaborations, gaps, duplications, and needs across key decision-makers, agents of change, funders and stakeholders in general.

In the next chapter, **Our Approach** presents a brief literature review of how localization has occurred internationally and articulates further the “two-way” methodology designed to localize the SDG indicators.

In phase one, **Global to Local**, we share a decision making process we have created to help municipalities with the first step in creating a local Sustainable Development Goal (SDG) tracking system. We have created a decision making tree that can be used by any group in any country trying to build their own municipal system and we believe that it will be helpful in preparing these groups for the public engagement aspect of their work. The decision making tree addresses all 244 SDG indicators to determine which indicators are applicable and relevant to the local level. The tool is constructed in such a way that it provides a starting point for any city willing to build a local tracking system based on the SDGs.

In phase two, **Local to Global**, we developed a localized list of indicators. We consulted 13 local documents and reached out to 95 individuals representing 41 local institutions to hear their expertise about the seventeen global goals and identify gaps in the original list of indicators.

The present report also contains:

- A tool to perform the preliminary evaluation
- A tool to get community feedback
- the preliminary evaluation of all the original indicators for London Ontario
- The list of local SDG indicators for London Ontario

The list of local indicators can be used to leverage citizen and stakeholder engagement by refining the focus of where actions need to be targeted and information needs to be tracked.

WHY

The present report is part of a project which started in 2016 with the ambitious goal to end poverty in London Ontario in one generation. Following six months of consultation, the **London for All: A Roadmap to End Poverty**² report was released on behalf of the Mayor's advisory panel on poverty. In 2017 the United Way Elgin Middlesex was named the Lead Agency to implement the plan which included 112 recommendations in eight focus areas. More than 60 stakeholder organizations participated in the process of identifying, updating, tracking, and implementing 112 recommendations. And 38 individuals identifying with lived or living experience are involved as key decision-makers.

London For All is a three-year initiative that ends in the spring of 2020. With progress on many of the recommendations and many lessons learned throughout the process, there remains a lot of work still to be done in an ever-evolving scenario. To build on the achievements of *London For All* and thrust the work into the future, the Sustainable Development Goals were chosen as the guiding framework to integrate the economic aspects of poverty reduction with its social and environmental aspects.

The London Poverty Research Centre at King's was commissioned to lead the translation of the indicators into meaningful measurements at the local level. In doing so, it is intended that this can provide a platform for common measurement across community organizations, social service agencies and funders to evaluate their outcomes.

The ultimate goal of *London For All* is to allow everyone to reach their full potential. This is aligned with one of the main principles of the Sustainable Development Goals: "leave no one behind". This will inevitably challenge the current economic and political systems, governance structures and business models that foster the concentration of wealth, income and decision-making power at the top.

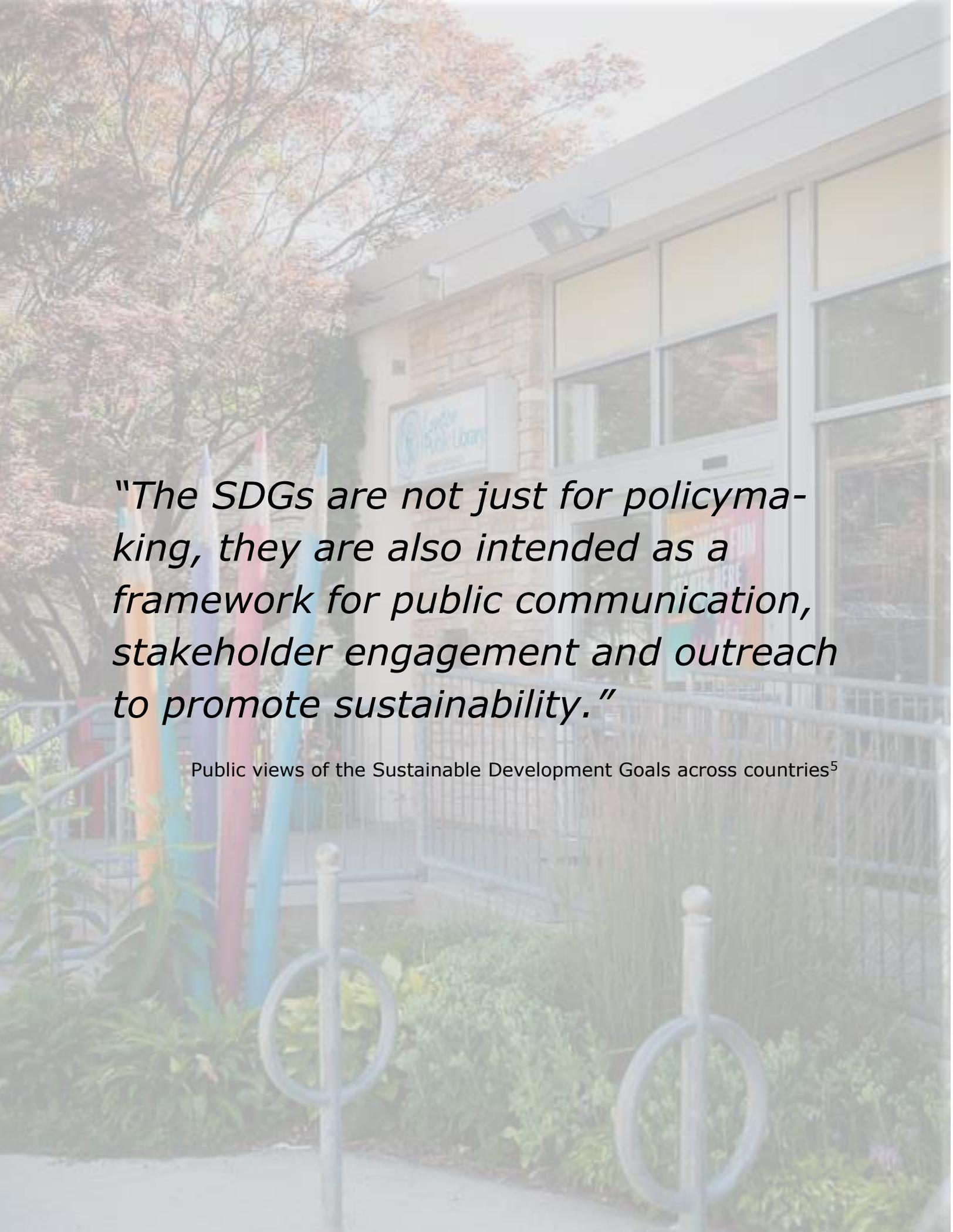
In order to achieve this goal, the first step was to gain broad public input, hearing from over 1,000 Londoners in more than one hundred meetings. An action plan (112 recommendations) emerged from those conversations. The implementation has been a coordinated effort of public, private and nonprofit sectors. Moving forward, it is crucial to understand what is working and what is not, to ensure that the available resources are being used in the most efficient way. This will only be achieved by having consistent and up-to-date information to track areas of

progress. By using a multi-dimensional framework to track progress such as the SDGs, it is possible to:

- create a shared definition and common language for progress
- set a baseline for measuring progress and ensure uniform metrics
- emphasize outcomes, collective impact, and results, rather than focusing on inputs/outputs
- align the work and actions of disparate groups of local actors (intersectional and interscalar)
- share learning and expertise and promote best practices
- promote transparency and accountability in social impact work

The Sustainable Development Goals can provide a language to integrate social, economic and environmental concerns into a single framework that has been used not only among local actors from different sectors but also across different levels of government. The Canadian voluntary national review shows the commitment of the Federal government to supporting this framework: "The Government of Canada will ... develop a national strategy on the 2030 Agenda through collaboration with all levels of government, Indigenous peoples, civil society and the private sector"³

Even though the SDGs are global goals established by many different Countries around the world, there is a consensus that the implementation of the global or national SDG strategy occurs at the local level. In fact, a European report from 2019 identified that "around 65 percent of the Agenda 2030 goals could not be realized fully without the contributions of regional and local governments."⁴ And in order to contribute, municipalities need to play an active role in defining the SDG-related policies relevant to their local context, as well as collecting local data and tracking the progress towards sustainable development.



"The SDGs are not just for policymaking, they are also intended as a framework for public communication, stakeholder engagement and outreach to promote sustainability."

Public views of the Sustainable Development Goals across countries⁵

2. OUR APPROACH

“Localization refers to the process of adapting, implementing, and monitoring the SDGs at the local level.”⁶ Our approach to translating the SDGs to the local level is a “two-way” method where a top-down (Global to Local) and a bottom-up (Local to Global) process has been developed.

Getting to know the Global Goals and identifying the subset of indicators that might be applicable and/or relevant to a city is the initial step for localizing them. The second step is for each city to develop its local engagement strategy to identify how their local priorities align with the SDGs.

2.1. LITERATURE REVIEW

We reviewed 26 documents exploring different aspects of the SDG framework including community engagement, sub-national indicators, contextual analysis, and data interoperability. Sources are mostly from Canada and a few more from the United States, Europe and Japan (see Figure 1). More than 50% were published or updated within the last two years (see Figure 2).

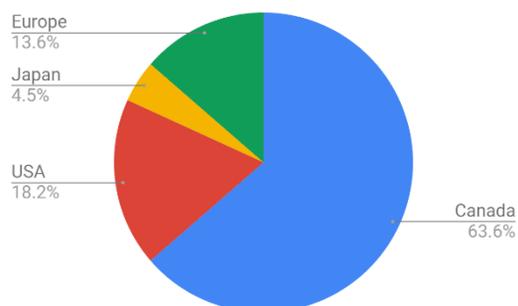


Figure 1. Source reports by location

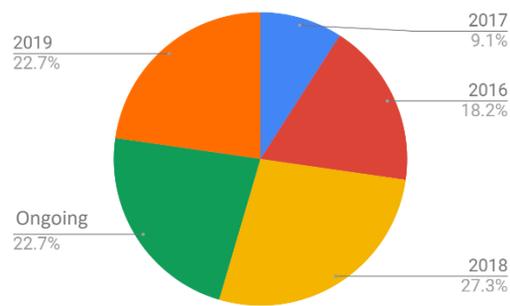


Figure 2. Source reports by year of publication

Our literature review had two main goals:

- Find examples of cities that applied a localization process and access their final list of local indicators.
- Find models or templates to localize indicators to the city level.

Matching the Global Goals to Cities: Goals, Targets, and Indicators

Early on our literature review, we learned that we would be able to apply only a fraction of the global indicators. A report published in 2017 by the Brookings

Institute¹² analyzing all the 169 targets and 244 indicators, identified only “78 SDG targets that are outcome-focused, relevant to high-income countries, and quantitatively assessable”. Even among those, only 61 targets (containing 73 underlying indicators) could be assessed due to data availability. That represents only **36% of targets and 30% of the indicators**.

Other reports present similar results in the United States. In one study, Prakash et al. (2017)¹³ identify only “49 indicators to assess SDG starting positions of the 100 largest American metropolitan areas”. Another study by Greene and Meixell of the Urban Institute (2017)¹⁴ examine comparable metropolitan areas across the United States to identify which SDG targets are relevant and measurable. This study finds that “103 targets are relevant to U.S. cities and 68 are measurable using publicly available data”. Analysis in European countries also align with these findings such as Finland’s 2016 Voluntary National Review¹⁵ which found that less than half of the indicators had national data available. Sweden’s 2017 Voluntary National Review¹⁶ also identified that less than half [120 of 244] indicators were relevant for their context “noting that many of the targets require more precise ambitions in order to enable future follow-up.”¹⁷

Most of the examples that we explored focused either on the Goals broadly^{9,10} or on the target levels¹¹. In our study we are taking a slightly different approach where we will start from the indicator level of analysis and work our way towards the targets and goals. Through this analysis we hope to contribute to a deeper understanding of how the original SDG indicators can be aligned with a local set, even where the targets themselves may need to be adjusted. Through this approach we will be able to compare what we find at the indicator level with what the Booking’s report finds starting from the target level.

Two Way Approach Global to Local – Local to Global

Through the literature review we have identified two basic approaches to localization. We have used these approaches to inform how we structured our analysis as well. On the one hand, several cities have approached localization by focusing on the local issues and indicators that they already use and exploring how they align with the global goals. We have coined this approach the *Local to global methodology*. In this scenario cities that already have their own tracking system attempt to align their local indicators within a broader view of the SDGs. New York⁷ is a reference city for this approach.

On the other hand, we have also identified the opposite approach using a - *Global to local methodology*. In this approach cities use the original SDGs as their starting point to help identify the local issues framing them within the seventeen goals. The global to local approach allows for cities to more closely align with the SDGs in a

way that can be amalgamated across cities and align more closely with the original list of UN indicators. However, as noted in the previous section less than half of the original targets are easily translated to cities – suggesting that there are many gaps that likely need to be filled in order to ensure that a tracking system is locally relevant. Los Angeles⁸ is a recent example of this approach.

Our approach draws from both approaches by framing the process within the seventeen global goals and assessing their applicability and subsequently taping into the local knowledge via collaborative documents and interviews with members of local organizations to inform the final list of indicators that we propose.

At the end of Global to Local stage, we were unable to find any sources of reference that had translated indicators to the municipal level. All other documents worked at the level of goals or targets. As such, to the best of our knowledge, the current study, methods, and list of indicators in the appendix is the first attempt to do so.

2.2. TWO-WAY METHOD

This current study was framed as an ongoing multi-dimensional dialogue (see Table 1) where the process of creating meaning consists of a dynamic and context-dependent exchange from opposite directions.

The two-way approach is also present in the **written documents** used in this study. The literature review was comprised of 26 documents from international groups discussing general strategies and global impact. And the document analysis included 13 documents written by local champions addressing challenges specific to London and propose actions to be implemented.

Our **communication**, while we gather insights from local experts, we are also educating about the sustainable development goals, how integrated they are and their applicability in London, Ontario.

Finally, the way we will be **collecting data**. Some of our indicators will be populated with secondary data from Western University or StatCanada. Other indicators will have primary data generated by the London Poverty Research Centre or potential members that will be collecting data to populate the local SDG dataset.

	→	←
City-based indicators	Global to local	Local to global
Data collection	Secondary data	Primary data
Written documents	General reports	Local documents

Communication	Community feedback	Community awareness
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Table 1. *Different dimensions of the two-way (dialogue) approach.*



"Localizing SDGs is not the parachuting of global goals into local context but linking local and regional government's agendas with the global goals and empowering sub-national governments."

Emilia Saiz, Secretary General Of United Cities And Local Governments¹⁸

3. Global to Local

In this chapter we engage in the first phase of our evaluation starting with a deep examination of the list of indicators as originally stated in the UN framework through a structured decision-making process matching them to the local context of London Ontario. The goal of this analysis is to determine what percentage of the original indicators are relevant to the London context. We are not addressing the quality of the indicators, the data availability, or if they represent a holistic set of indicators for the local context. We do that in the next chapter where we explore local knowledge and feedback from a cross-sectoral group of Londoners.

3.1. LOCALIZATION TOOL

Creating the Localization Tool for Indicators

As an attempt to create a tool that could be used in London (and across regions) we developed a decision making tree intended to help the process be systematic and objective. This was important because we wanted to limit the impact of our own biases about what is relevant and what is not. It is important to overcome these biases because what is measured is often what is seen and we acknowledge that data can be a political tool for setting or undermining agendas.

The design of the localization tool for translating the SDG indicators was an iterative process where a decision tree was refined by analyzing how each one of the original SDG indicators could be applied in the local context. The evaluation identified five different possible outcomes for how the original indicators should be categorized (see Table 2).

Maintain	Indicator can be used as it is or reworded just to make sense in the London context.
Localize	Indicator can be adopted by changing only its scale to the municipal level
Proxy	Indicator needs to be adapted to become clearly quantified or measurable at the municipal level
Park	Indicator is applicable but not necessarily relevant in the local context (requiring further consultation)
Discard	Indicator is not applicable

Table 2. Categories for SDG indicator translation.

There is a sixth category of potential indicators that is not addressed in this phase of the analysis. The “Create” box (see Figure 3) represents the potential gaps that started to emerge during the preliminary evaluation and will be consolidated through community consultation during the next stage. The new indicators will be included during the second phase when the bottom-up analysis is implemented.

The decision tree itself was adapted from the report “Who and What Gets Left Behind: assessing Canada’s status on SDGs”¹⁹ that prioritizes the U.N.’s formal framework of targets, indicators, and data. In the aforementioned report the authors focused on examining which SDG **targets** are relevant to the Canadian Context. In the current work, we examine which **indicators** are relevant to the municipal context.

How to use the tool

Each one of the 244 indicators was assessed using the decision tree and was assigned to one of the five possible categories (see Table 2). To help inform our decision about which variables are relevant to the local context we selected three key documents to justify why we labelled them as relevant or not. For our context in London, we used the London For All report²⁰, London Community Foundation: vital signs report²¹ and City of London 2019-2023 Strategic Plan²². Respectively, they address eleven, fifteen and thirteen of the seventeen sustainable development goals.

In addition to the three local documents, we used auxiliary sources of reference to provide further evidence of the applicability of the indicator. For this we used the classification of SDG outcomes table in the Brookings Institute report (data on the national level for targets)²³ and the StatCan²⁴ SDG Data Hub (data on the national level for indicators). These sources were used when it was unclear from the local documents how relevant the indicator was.

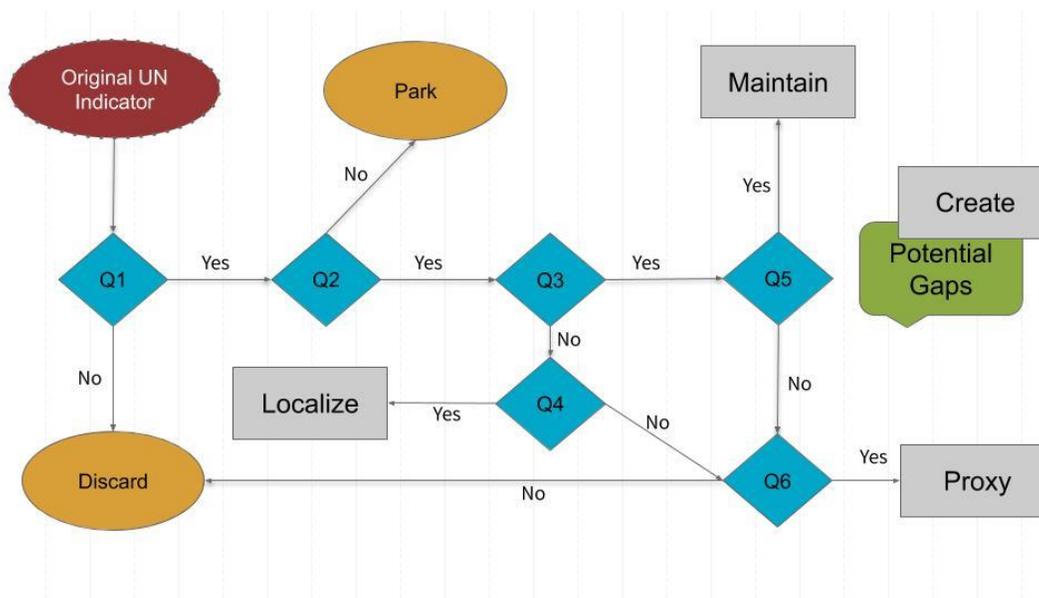


Figure 3. Decision tree to translate SDG indicators to the local level.

Question	Rationale
Q1: Is indicator applicable in the London context?	This question is the first vetting process for filtering indicators that simply cannot be measured in the local context because they do not match features. For example, in the London context any indicators looking at marine life can be discarded quickly because London is not close to any oceans.
Q2: Is indicator relevant in the London context?	This question aims to examine if the indicator is relevant to the local context. That is even if the indicator may be measuring something in the local context is it significant enough of an issue to warrant attention in a local tracking system.
Q3: Is indicator focused at the municipal level?	This question examines if the indicator is intended to be an international measurement - and that it is worded as such (i.e. amount of international aid provided to developing countries). In the case that the indicator does not specify the level and it makes sense in the municipal context we answer 'yes' to this question (i.e. mortality rate of children <5).
Q4: Can the indicator be adopted by only changing its scale?	This question explores if an indicator can become relevant to the local level by simply changing the scale of the measurement. If we can establish a meaningful indicator by substituting terms such as 'national' for 'local' then we answer 'yes' to this question. If the scale can't be changed or the indicator remains unclear even after changing then we answer 'no' to this question.
Q5: Is indicator clearly quantified and measurable?	This question seeks to identify if the indicator can be used as it is (maintained) because it is applicable, relevant, and has clearly measurable variables. If the indicator is vague - in terms of what exactly should be measured, then we answer 'no' to this question.
Q6: Can a proxy indicator be established?	In this question it has already been determined that the indicator is applicable and relevant to the local level, but that it does not clearly state what should be measured (i.e. convenient access to public transport). In this case, if we can identify a proxy measure we answer 'yes' to this question.

Table 3. Decision nodes to evaluate indicator translation.

Answers to Q1 were determined by observing if there was any connection at all to the local context. In instances where we had a difficult time determining applicability of an indicator, we used auxiliary sources of reference to provide further evidence. For this we used the classification of SDG outcomes table in the Brookings Institute report (data on the national level for targets) and the StatCan SDG Data Hub (data on the national level for indicators). If an indicator could not be found to associate with anything at the municipal level it was discarded.

In order to help us answer Q2, which variables are relevant to the local context, we selected three key documents to justify why we labelled them as relevant or not. For our context, we used the London For All report, London Community Foundation: vital signs report and City of London 2019-2023 Strategic Plan. In certain instances, it was clear that an indicator was applicable, but that it was not relevant. In these cases we decided to 'park' the indicators as a place for further investigation, particularly to get feedback from local area experts if they thought it was relevant.

Q3, Q4, Q5, and Q6 function as relatively straight forward questions about the nature of the variable. Q3 asks if the indicator is focused at the local level, usually requiring only a change in wording to frame the indicator from the national to local context (Q4). However, if the indicator was clearly focused on the municipal level then we had to determine if the indicator could be 'maintained' as it was in original state or if it required more alterations in order to be quantifiable and measurable (Q6, Proxy). It was rather surprising that there were quite a few indicators that were stated as indicators but were not operationalized as directly measurable phenomenon. For example, the original wording for indicator 1.2.2 seeks to measure: 'the Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions'. This definition was rather problematic as it would require further analysis and subjective judgements in order to develop an operational definition for the 'dimensions of poverty' in instances where national governments do not have definitions of poverty.

To further validate the evaluation, two researchers performed independent assessments of the indicators using the decision tree in Figure 3 (see also Table 3 for additional information about the decision nodes). In most cases the independent assessments resulted in the same decision outcomes. In the instances where the researchers selected different categories for an indicator translation, the evaluations were compared and discussed in order to reach a consensus. The evaluations were recorded using the localization tool in **Appendix I**.

3.2. REDUCED LIST OF ORIGINAL INDICATORS

We can classify the five different categories into two broad categories by grouping the decision tree outcomes as follows (see Figure 4):

- **Applicable:** maintain, localize, proxy
- **Non-applicable:** park, discard

The initial evaluation shows that 57.4% of the indicators are applicable. We expect to have a lower number of applicable SDG indicators after the second stage of the project. When we take a deeper dive with local groups to evaluate relevance and data availability, we might discover that is not feasible to use some of the indicators that were initially deemed as applicable. Thus, bringing the number closer to the previous reports and studies mentioned in our literature review.



Figure 4. Percentage of applicable and non-applicable SDG indicators in London Ontario.

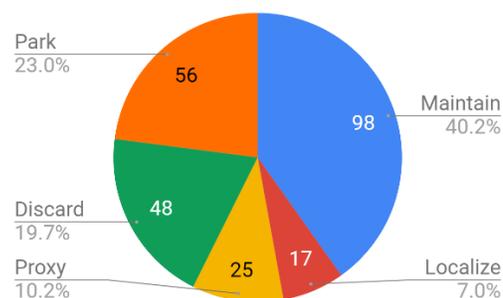


Figure 5. Percentage of SDG indicators in London Ontario in each of the five categories.

Figure 5 shows that in this preliminary analysis, the majority of the applicable indicators could be maintained as they are. However, this number might change significantly after the additional evaluation of the indicators where they will be validated with different local community groups to better understand their relevance, to try to identify existing local indicators, and assess how to obtain the data to track its progress.

A quick overview of the indicators by goal (see Figure 6) can provide a general picture of the indicators that are not relevant for London Ontario. The most telling is the Life Below Water (SDG14) that addresses ocean and marine life which is not applicable to a non-coastal city. Issues related to rivers, water supply and treatment are addressed by Clean Water and Sanitation (SDG6). Another clear example of non-applicable indicators are the ones focused on international policies and/or support to developing countries (i.e. “volume of remittances for financial aid”). This is more evident with the Partnerships for the Goals (SDG17), but it is present in a few other goals as well.

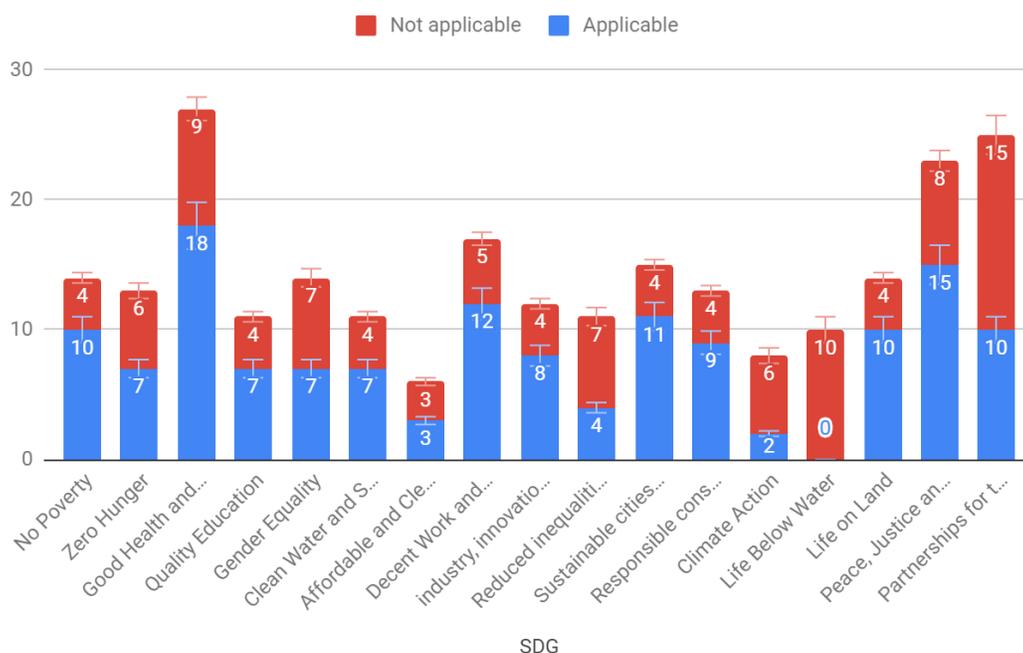


Figure 6. Number of applicable and non-applicable indicators within each individual goal in London Ontario.

In the next phase of this project, the list of indicators will be validated according to their relevance and data availability by local stakeholders and a deeper examination of local documents. The final list of SDG indicators in the “localized” and “proxy” categories will be translated into meaningful local indicators and gaps will be identified.

This is an example of the two-way approach. While building a local indicator set based on knowledge from local experts, we also raise awareness about the SDG framework by engaging multiple stakeholders early in the process. This double

purpose in the initial stages of the implementation strategy is one of the key suggestions found in our literature review^{25,26,27}.

You can see an example of each category of translation and how the wording of original indicator was changed in Table 4. For the full list of indicators and their evaluation, see **Appendix II** at the end of this report.

	Category	Examples of indicators
	Maintain	11.7.1 Average share of the built-up area of cities <u>the city</u> that is open space for public use for all, by sex, age and persons with disabilities
	Localize	12.1.1 Number of countries with <u>Is there</u> a sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national <u>municipal</u> policies
	Proxy	12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP
	Park	1.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
	Discard	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations

Table 4. Examples of suggestions for SDG Indicators Translation.



"Some of the most innovative SDG-focused local plans released over the past several years...represent the 'productive tension' between the universality of the SDG and the context-specific nature of measuring progress in specific communities."

Empowering Canadians through sustainable development²⁸

4. Local to Global

In this section we move to the second phase of our analysis – Local to Global. The main purpose of this second phase is to draw on local expertise to (1) confirm that the indicators that we identified as applicable to the local level are relevant; (2) determine what to do with the parked indicators, and (3) identify gaps in the current list. In order to determine relevance, we explore two sources of data. One source comes from interviews conducted with local area-experts and the other source comes from local documents which define the London context at the present time. This Local to Global analysis is particularly important because it should help to develop local buy-in from key stakeholders and leverage knowledge and data resources that already exist in the community.

4.1. LOCAL EXPERTISE

The list of 140 applicable indicators plus the 56 parked indicators identified in the *Global to Local* stage was used as a conversation starter. We were looking for three main inputs from the community:

- I. **Relevance of the original indicators:** How relevant is this indicator to our local context? Ranked on a Likert scale from 1 (not at all relevant) to 10 (very relevant).
- II. **Gaps:** What issues are not being addressed in this list?
- III. **Additional sources:** Is there anyone else we should talk to? Or any other source of information we should consult?

The initial outreach was made to participants of the London For All initiative and it quickly expanded to many other organizations including local government, academic institutions, non-profit and private businesses.

In total we reached out to 95 individuals and collected the input from 69 individuals (73% response rate) from 41 organizations in London, Ontario. There was on average feedback from four individuals for each goal.

The feedback was provided either in-person, by phone or email. The preferred way was meeting in person since we could have the opportunity to clarify questions more directly and have a more interactive discussion that usually led to new insights. However, the method was chosen according to the convenience of the participants.

Relevance of Original Indicators

In order to assess the relevance of the indicators that we identified as applicable in chapter 3, we reached out to local area experts and asked them to rank them from 1 (irrelevant) to 10 (very relevant). On average we had 4.1 respondents per goal, ranging from 2 to 6 respondents. We determined to keep indicators that had an average score of 8 or above.

In order to choose our cut off we wanted to ensure a high level of consensus that the indicator was relevant to London. Therefore, we started by looking at the indicators from the highest level of consensus (scores of 10) moving downward and examining the fit of the indicators to the London context based on what we had learned from our local document analysis and interviews. We determined that 8 was a good cut off because the move to 7 showed that the indicators were becoming less relevant and there were larger differences in the responses showing a lower level of consensus.

Table 5 shows how many indicators were examined for each goal. In total, 196 indicators (11.5 indicators on average for each goal) were considered for the relevance analysis based on the Global to Local analysis. The first column on the right side of the SDGs contain the number of indicators that were considered applicable or required further investigation (parked) for each goal. The second column identifies the number of indicators that received a score of 8 or higher. The last column is the percentage of indicators kept of the 140 applicable indicators and the 56 parked indicators.

In total, 40.31% of the indicators in the relevance analysis were kept. This represents 32.38% of total number of indicators from the original SDG framework (79 of the 244 original indicators). These results align with what was found in our literature review (see Section 2.1).

	SDG	Number of indicators analysed	Number of relevant indicators	Percentage of relevant indicators
1	No Poverty	13	6	46.2%
2	Zero Hunger	10	3	30.0%
3	Good Health and Well-being	25	7	28.0%
4	Quality Education	10	1	10.0%
5	Gender Equality	13	5	38.5%
6	Clean Water and Sanitation	10	8	80.0%
7	Affordable and Clean Energy	5	1	20.0%

8	Decent Work and Economic Growth	16	7	43.8%
9	Industry, Innovation, and Infrastructure	11	3	27.3%
10	Reduced Inequalities	5	3	60.0%
11	Sustainable Cities and Communities	14	6	42.9%
12	Responsible Consumption and Production	10	6	60.0%
13	Climate Action	6	1	16.7%
14	Life Below Water	2	0	0%
15	Life on Land	12	4	33.3%
16	Peace, Justice and Strong Institutions	21	10	47.6%
17	Partnerships for the Goals	13	8	61.5%

Table 5. Relevance analysis of the SDG indicators.

4.2. LOCAL DOCUMENT ANALYSIS

The local document analysis was conducted to help better understand the relative importance of SDG areas for the London context. These documents were identified by local experts. Through the exploration of the documents we were provided a basis to judge the relative importance of the various goals. This helped to validate responses from experts in the relevance analysis and to identify gaps in the original list requiring new indicators in the final list.

The starting point was the three local reference documents: London For All report²⁹, the London Community Foundation: vital signs report³⁰ and City of London 2019-2023 Strategic Plan³¹. Due to the broad ranging nature of those documents, a high-level analysis was performed to obtain an overview of the alignment between local and global challenges. Figures 7, 8 and 9 provide a visual representation to get a bird's eye view of the connections with the sustainable development goals. A more specific analysis can be found in tables 6, 7 and 8. They have the full list of connections between SDGs and each of the three local documents.

The lines used in the infographic use the same colors as the SDGs they connect to. The more lines connected to the document areas means the more connections it has to an SDG area. A combined list of the relationships between the SDGs and all three local documents is available in the **Appendix III** at the end of this report.

Matching London For All and the SDGs

The London For All initiative has eight areas (tables):

1. Changing Mindsets
2. Income & Employment

3. Health
4. Homelessness Prevention & Housing
5. Transportation
6. Early Learning & Education
7. Food Security
8. System Change



Figure 7. Match between London For All tables and the Sustainable Development Goals.

There are a few one-on-one relationships that are self-evident such as LFA tables 2, 3, 6 and 7 with SDGs 8, 3, 4 and 2 respectively. Most of the SDGs focused on environmental issues are not really addressed (Clean Water and Sanitation, Affordable and Clean Energy, Climate Action, Life Below Water, Life on Land) since the focus – *To end poverty in one generation* – of this initiative is socio-economic. LFA tables 1 and 2 are the ones with the most connections to SDGs, four SDGs each (see Figure 7 and Table 6).

	SDG	London For All Tables
1	No Poverty	Income & Employment, Homelessness Prevention & Housing
2	Zero Hunger	Food Security
3	Good Health and Well-being	Health, Homelessness Prevention & Housing
4	Quality Education	Income & Employment, Early Learning & Education
5	Gender Equality	Changing Mindsets
6	Clean Water and Sanitation	-
7	Affordable and Clean Energy	-

8	Decent Work and Economic Growth	Income & Employment
9	Industry, Innovation, and Infrastructure	-
10	Reduced Inequalities	Changing Mindsets, Income & Employment
11	Sustainable Cities and Communities	Homelessness Prevention & Housing, Transportation, System Change
12	Responsible Consumption and Production	Food Security
13	Climate Action	-
14	Life Below Water	-
15	Life on Land	-
16	Peace, Justice and Strong Institutions	Changing Mindsets, System Change
17	Partnerships for the Goals	Changing Mindsets

Table 6. Alignment between the sustainable development goals and London For All tables.

Matching London Vital Signs and the SDGs

The London Vital Signs Report has seven focus areas:

1. Be Healthy
2. Be Sheltered
3. Be Equal
4. Be Employed
5. Be Green
6. Be Educated
7. Belong

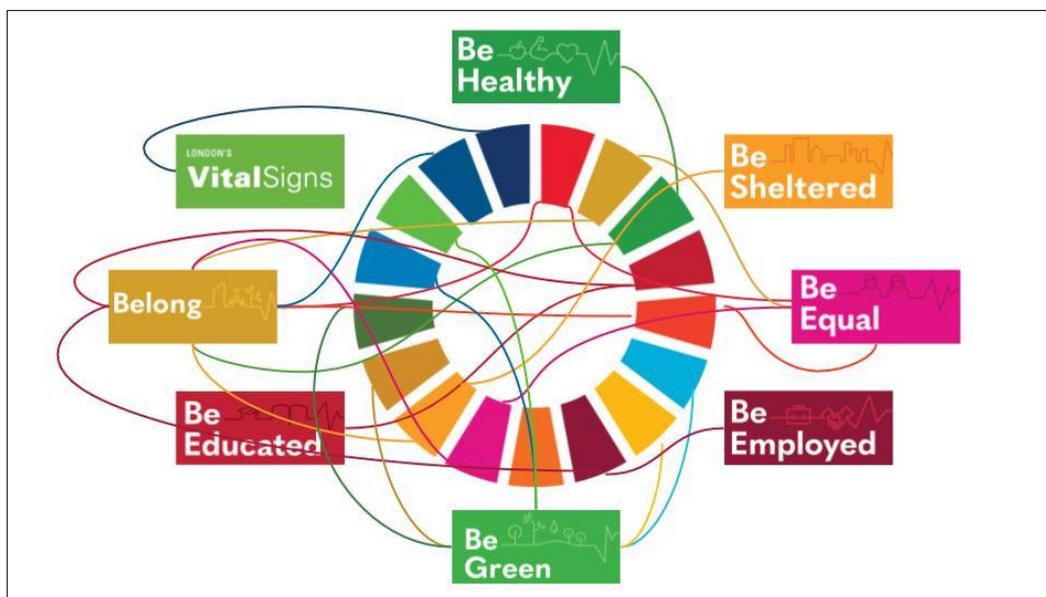


Figure 8. Match between London Vital Signs Report and the Sustainable Development Goals.

	SDG	London Vital Signs
1	No Poverty	Be Equal, Belong
2	Zero Hunger	Be Equal, Belong
3	Good Health and Well-being	Be Healthy, Belong
4	Quality Education	Be Educated, Belong
5	Gender Equality	Be Equal, Belong
6	Clean Water and Sanitation	Be Green
7	Affordable and Clean Energy	Be Green
8	Decent Work and Economic Growth	Be Employed, Belong
9	Industry, Innovation, and Infrastructure	-
10	Reduced Inequalities	Be Equal, Belong
11	Sustainable Cities and Communities	Be Sheltered, Belong
12	Responsible Consumption and Production	Be Green
13	Climate Action	Be Green
14	Life Below Water	Be Green
15	Life on Land	Be Green
16	Peace, Justice and Strong Institutions	Belong

17	Partnerships for the Goals	Vital Signs
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Table 7. Alignment between the sustainable development goals and London Vital Signs.

This document also presents some obvious one-on-one relationships such as vital signs 1, 4 and 6 with SDGs 3, 8 and 4 respectively. There are a few additional ones that are clustered. Vital sign 3 has a direct relationship with SDGs 5 and 10. Vital sign 5 has a direct relationship with SDGs 6, 7, 13, 14 and 15. "Belong" is the vital sign with the most connections to SDGs, nine in total (see Figure 8 and Table 7).

Matching City of London Strategic Plan and the SDGs

The City of London Strategic Plan has five strategic areas of focus:

1. Strengthening our community
2. Building a sustainable city
3. Growing our economy
4. Creating a safe London for women and girls
5. Leading in public service

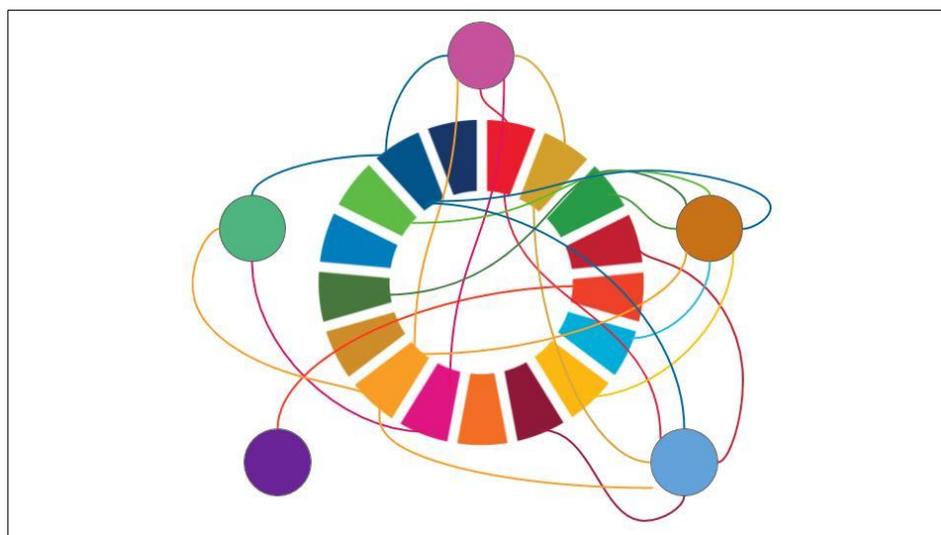


Figure 9. Match between London Strategic Plan focus areas and the Sustainable Development Goals.

	SDG	City of London Strategic Areas
1	No Poverty	Strengthening our community, Growing our economy
2	Zero Hunger	Strengthening our community, Growing our economy
3	Good Health and Well-being	Building a sustainable city
4	Quality Education	Growing our economy
5	Gender Equality	Creating a safe London for women and girls

6	Clean Water and Sanitation	Building a sustainable city
7	Affordable and Clean Energy	Building a sustainable city
8	Decent Work and Economic Growth	Growing our economy
9	Industry, Innovation, and Infrastructure	-
10	Reduced Inequalities	Strengthening our community, Leading in public service
11	Sustainable Cities and Communities	Strengthening our community, Building a sustainable city, Growing our economy, Leading in public service
12	Responsible Consumption and Production	-
13	Climate Action	Building a sustainable city
14	Life Below Water	-
15	Life on Land	Building a sustainable city
16	Peace, Justice and Strong Institutions	Strengthening our community, Building a sustainable city, Growing our economy, Leading in public service
17	Partnerships for the Goals	-

Table 8. Alignment between the sustainable development goals and London Strategic Plan areas.

In this document, four out of five focus areas have a self-evident one-on-one relationship with a SDG. They are areas 2, 3, 4 and 5 with SDGs 11, 8, 5 and 16 respectively. The strategic area Building a sustainable city has the most connections to the SDGs, seven in total (see Figure 9 and Table 8).

Summary of the three matches

Sustainable Cities and Communities (SDG11) is the global goal with the most connections across the three local documents. This can be due to the fact that SDG11 is a broad goal encompassing social, economic and environmental issues and “interdependencies between SDG11 and the other SDGs ripple throughout the agenda.”³²

Industry, Innovation, and Infrastructure (SDG9) and Life Below Water (SDG14) are the only goals that are not addressed in any of the three main reference documents. While it is the case that SDG14 is mentioned in the vital sign reports under “Be green”, our analysis exploring the connections at the indicator level showed that it is not being actually addressed because SDG14 refers specifically to oceans and marine life.)

Since the SDG localization process was initiated by the London For All initiative, and the London Community Foundation embeds the SDGs on its Vital Signs, it is clear that both documents are aligned with the Partnerships for the Goals (SDG17). The City of London strategic plan doesn't contain any direct reference to the SDG framework and during the feedback phase that was confirmed.

Additional Documents

During this phase, the number of local documents was expanded from three to thirteen documents^{33,34,35,36,37,38,39,40,41,42}. The additional reports and studies were recommended as relevant sources of information by local experts from specific areas. Those documents are more focused in specific areas and do not address such a wide cross-section of SDGs as the three main documents (See Table 8).

Document	Year	Number of SDGs addressed
City of London Cycling Master Plan Review	2019	5
London Cultural Prosperity Plan	2018	4
Beyond Waste Forum Final Report	2018	3
City of London Newcomer Strategy	2018	2
Community Drug and Alcohol Strategy (CDAS)	2018	2
TVDSB Guideline for Inclusive Learning Cultures: Supporting Trans and Gender Diverse Students & Staff	2018	3
London Urban Agriculture Strategy	2017	3
London's Community Diversity and Inclusion Strategy	2017	6
Community Economic Roadmap	2015	4
Back to the river community consultation report	2015	5

Table 8. Additional local documents, year of publication and their connections with the SDGs.

The additional documents each address between two to six SDGs. Figure 10 shows how many of the thirteen local documents address each SDG. There is only one SDG that is not addressed at all. Life Below Water (SDG14), related to oceans and marine life. Industry, Innovation, and Infrastructure (SDG9) is addressed in only one document - Community Economic Roadmap⁴³. The most addressed goal is Sustainable Cities & Communities (SDG11), present in ten out of thirteen documents. The three other goals that received a lot of attention are: Good Health & Wellbeing (SDG3), Decent Work & Economic Growth (SDG8) and Reducing Inequalities (SDG10). Figure 11 shows when the local documents were published. They were all published after the Agenda 2030 was launched in 2015.

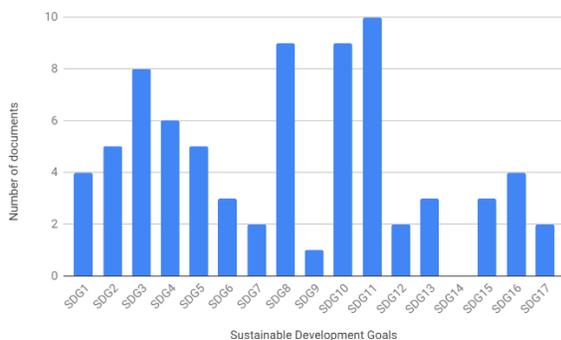


Figure 10. Match between the Sustainable Development Goals and local documents.

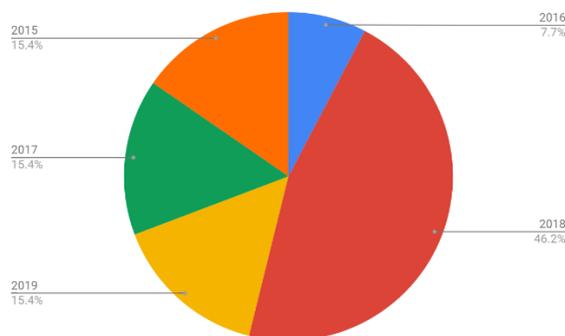


Figure 11. Local documents by year of publication.

4.3. GAPS

In order to identify gaps in the SDGs we carefully explored the content of the local documents and asked interview participants where they saw gaps in the lists they had reviewed. Each goal received, on average, eight suggestions for new indicators filling gaps. Those suggestions indicate relevant issues (local or not) that are not part of the original list of SDG indicators but could be added to the localized list. Below are the highlighted gaps identified in our analysis:

- **LGBTQ2+.** Gender within the SDG framework is viewed strictly as binary (male/female). The feedback from local champions about equality, diversity and inclusion were clear about the relevance of this topic. This is documented in some of the reference reports^{44,45}. Non-binary gender is a reality present in our everyday lives. There are many initiatives raising awareness and exposing the problems faced by these groups. That include events such as the Pride London Festival⁴⁶ and organizations such as Intersex London⁴⁷.
Local indicator: percentage of schools that have inclusive after school programs or GSA (gay straight alliance)
- **Reconciliation.** Even though a few indicators suggest to disaggregate the data by indigenous status, local champions pointed out the need to address this topic in a more robust way. In Canada, reconciliation is a significant issue in all levels of government^{48,49}. The population of indigenous peoples in London, Ontario is close to 10,000 people⁵⁰. There are three first nations communities (Oneida Nation of the Thames⁵¹, Munsee-Delaware Nation⁵² and Chippewas of the Thames First Nation⁵³) in the region and a few organizations^{54,55,56} that focus on first nations and indigenous communities
- **Urban agriculture.** Sustainable agriculture is addressed in Zero Hunger (SDG2) and land use is addressed under Sustainable Cities and Communities (SDG11).

However, agricultural practices within urban areas is not present in any of the two global goals. London, Ontario has local initiatives tackling this issue^{57,58}, including its own London Urban Agriculture Strategy⁵⁹.

Local indicator: Percentage of urban area under productive and sustainable agriculture

- Bicycle commuting.** Transportation is one of the themes under Sustainable Cities and Communities (SDG11). SDG11 has one indicator regarding public transit but it doesn't address active transportation. According to the World Health Organization, the bicycle is as an affordable, reliable and sustainable means of transportation. It fosters environmental stewardship and good health, providing a cost-effective form of transport while reducing the risk of heart disease, stroke, certain cancers, diabetes, and even death⁶⁰. An European report⁶⁰ points out that cycling has a positive impact in at least eleven of the seventeen goals. In London, Ontario, a review of the cycling master plan⁶² shows the positive impacts of cycling in many SDGs, including:

No Poverty (SDG1) - Everyday cycling can save individuals and families thousands of dollars per year and enable them to access jobs, lifting many families out of poverty. Good Health (SDG3) - People who cycle every day are healthier, more productive, and have significantly lower risks of heart disease, cancer, and premature death. It also makes safer streets for all including drivers. Quality education (SDG4) - Children and young adults need to develop independence through mobility in their community. Providing safe infrastructure for cycling to school, part time jobs, activities, and play helps children be happier, healthier, and more independent. Decent Work & Economic Growth (SDG8) - Cities with multiple transportation options attract top talent and corporations. Retail districts with protected bike lanes do better than those without. Reducing Inequalities (SDG10) - Given safe infrastructure, transportation cycling is an attractive option for individuals from 8 to 80 years old, families with young children, and persons with disabilities. Sustainable Cities & Communities (SDG11) - Full cost accounting of infrastructure investments show that motor vehicles and transit are heavily subsidized, whereas cycling and walking infrastructure provide net benefit to the public investment. The conversion of one motor vehicle lane to protected bike lanes can move seven times as many people using the same amount of space. Bicycles are the fastest mode of transport in most dense urban areas. Climate Action (SDG13) - Cycling provides zero carbon transportation. Replacing motor vehicle trips with cycling decreases air pollution in cities. Cycling is part of the City's Strategic Plan⁶³ and it has its own master plan⁶⁴ and advisory committee⁶⁵. The city also has non-profit groups^{66,67} as well as other community initiatives supporting cycling^{68,69,70}.

Local indicator: Ratio of separated bike lanes by total roads

- **Wealth inequality.** GDP is used to estimate the size of an economy and growth rate and it is employed in several indicators from eight of the seventeen goals. The reason for that is the positive correlation between GDP and health. However, Pickett and Wilkinson⁷¹ show that this link becomes much weaker for annual income above \$8,000/year. From a developed country perspective, wealth inequality plays a much more important role. Among developed countries, “in more unequal countries, outcomes are worse in areas such as public health, education, obesity and social mobility”⁷². GDP cannot capture the distribution of wealth and it is oblivious to non-monetary transactions including any form of unpaid work or leisure and environmental impact. The International Council for Science analysed the interactions across SDG domains to identify how well they can work together⁷³. Overall the SDG framework is consistent and the goals can work together, however some of the indicators that use GDP were found to be detrimental to achieving other goals. Target 8.1 from Decent Work & Economic Growth (SDG8), for example, can have a constraining effect on targets 3.3 and 3.9 from Good Health & Well-being (SDG3). “Decarbonising the energy system through renewables and efficiency is consistent with the provision of basic energy services as long as policies help to shield the poor from any fuel price increases that may result.”⁷⁴. Another example is the negative effect that targets 7.2 and 7.3 from SDG7 – Affordable and Clean Energy can have on target 1.4 from No Poverty (SDG1). These findings suggests that this might be more than just a gap. GDP can be actually a counterproductive measure to measure economic sustainability.

Local indicator: Average Income by Quintile over time

- **Finite resources.** The ecological footprint measures the quantity of natural resources it takes to support people and/or an economy. According to the Global Footprint Network⁷⁵, today, humanity uses the equivalent of 1.75 Earths to provide the resources we use and absorb our waste. Ecological sustainability is in direct opposition with the imperative of constant growth that still can be found in some of the targets. One of the most relevant examples of this contradiction is target 2.3 from Zero Hunger (SDG2) which, if considered in isolation can have an underlying assumption of constant growth impacting negatively other targets. In a recent analysis, the International Council for Science⁷⁶ identified that pursuing target 2.3 sets a condition or a constraint on twenty different targets from five different goals (1.5, 3.9, 3.1, 3.2, 3.3, 3.4, 6.1, 6.2, 6.3, 6.4, 6.6, 7.1, 7.2, 13.1, 15.1, 15.2, 15.3, and 15.5). The same logic creates constraining effects between Decent Work & Economic Growth (SDG8) with targets 14.2, 14.5 from Life Below Water (SDG14) and targets 7.2, 7.3 from Affordable and Clean Energy (SDG7). And constraining effects between No Poverty (SDG1) and Life Below Water (SDG14). This gap is directly related to

the previous gap, Wealth Inequality. Indicator 10.1.1 is a good example of this relationship, it contains growth and inequality elements. The indicator compares income per capita among the bottom 40 per cent of the population and the total population according to their growth rate.

Local indicator: Total amount of energy used by sector and source

- **Mental Health.** Good Health & Well-being (SDG3) has only one target that mentions mental health. Suicide mortality rate is the one indicator that addresses that topic. Suicide is an extreme case of self-harm and this is just one challenge among many others in terms of our current experience of mental health. An Educator's guide from the Ontario Ministry of Education⁷⁷ also lists: anxiety, depression, bipolar disorder, hyperactivity, gambling, substance use, eating and weight-related problems. According to the Middlesex-London Health Unit, "in Ontario up to 1 in 5 teens or kids have mental health issues"⁷⁸ and mental health problems "are estimated to account for nearly 30% of all Long Term Disability (LTD) disability claims"⁷⁹ in Canada. London also has local organizations⁸⁰ addressing mental health issues.
- **Local challenges for global issues.** Additionally, some of the present challenges in the SDG framework were reframed or emphasized to better align with our context, including: housing affordability, opioid use, high cost of post-secondary education, junk food, bullying, international students, high energy use and urban sprawling.

4.4. LIST OF LOCAL INDICATORS

Drawing on the Global to Local analysis in Chapter 3 and the Local to Global analysis in the current chapter a final list of localized SDG indicators was created. In order to develop the final list of indicators we moved each of the original indicators that scored above 8 on the relevance analysis into the list and modified them in ways that made them more meaningful based on the feedback we received in the interviews. Further reviewing the gap and document analysis provided insights about new indicators to develop. The full list of local indicators is in **Appendix IV**.

In total there are 116 indicators in the localized list. Of these, 72 (62%) are directly connected to the original SDG list (maintained, localized, or modified) and 44 (38%) were created to fill gaps identified through local documents and interviews. Examining the numbers of indicators in the localized list compared to the number of indicators in the original UN list shows that the new localized list has 47% as many indicators as the original list (116 vs 244). From the original list of indicators approximately 29.5% were translated directly or indirectly into the local set (72

localized indicators of 244 original indicators). Figure 12 shows the number of indicators for each of the goals in the original and local set.

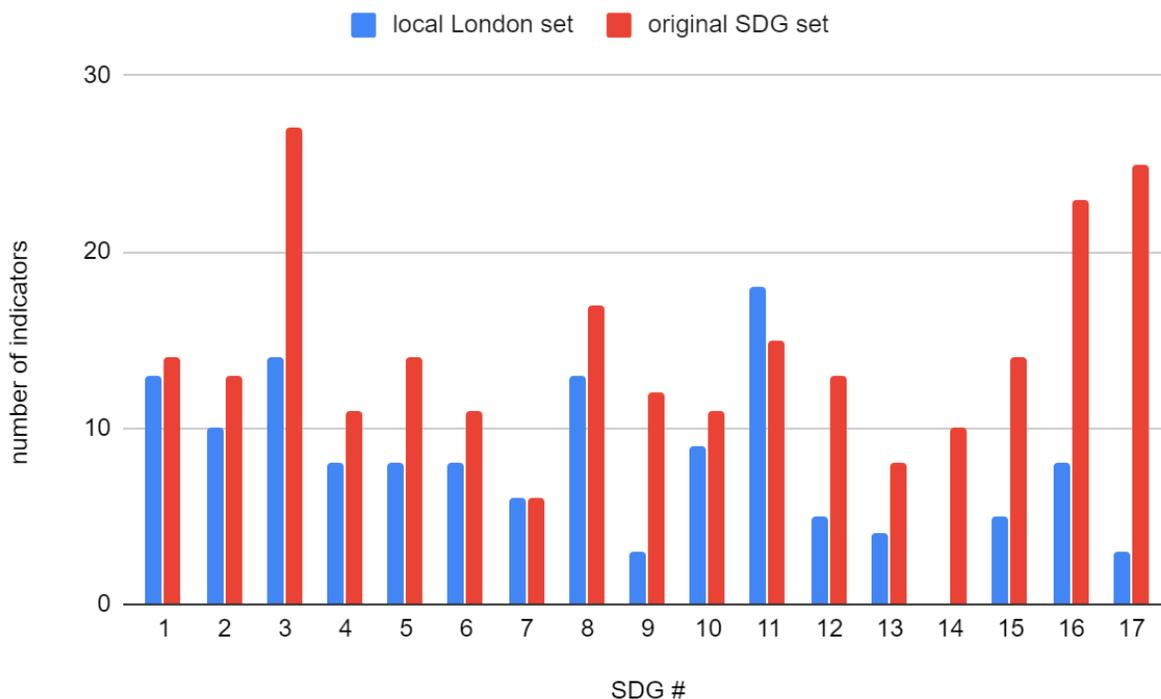


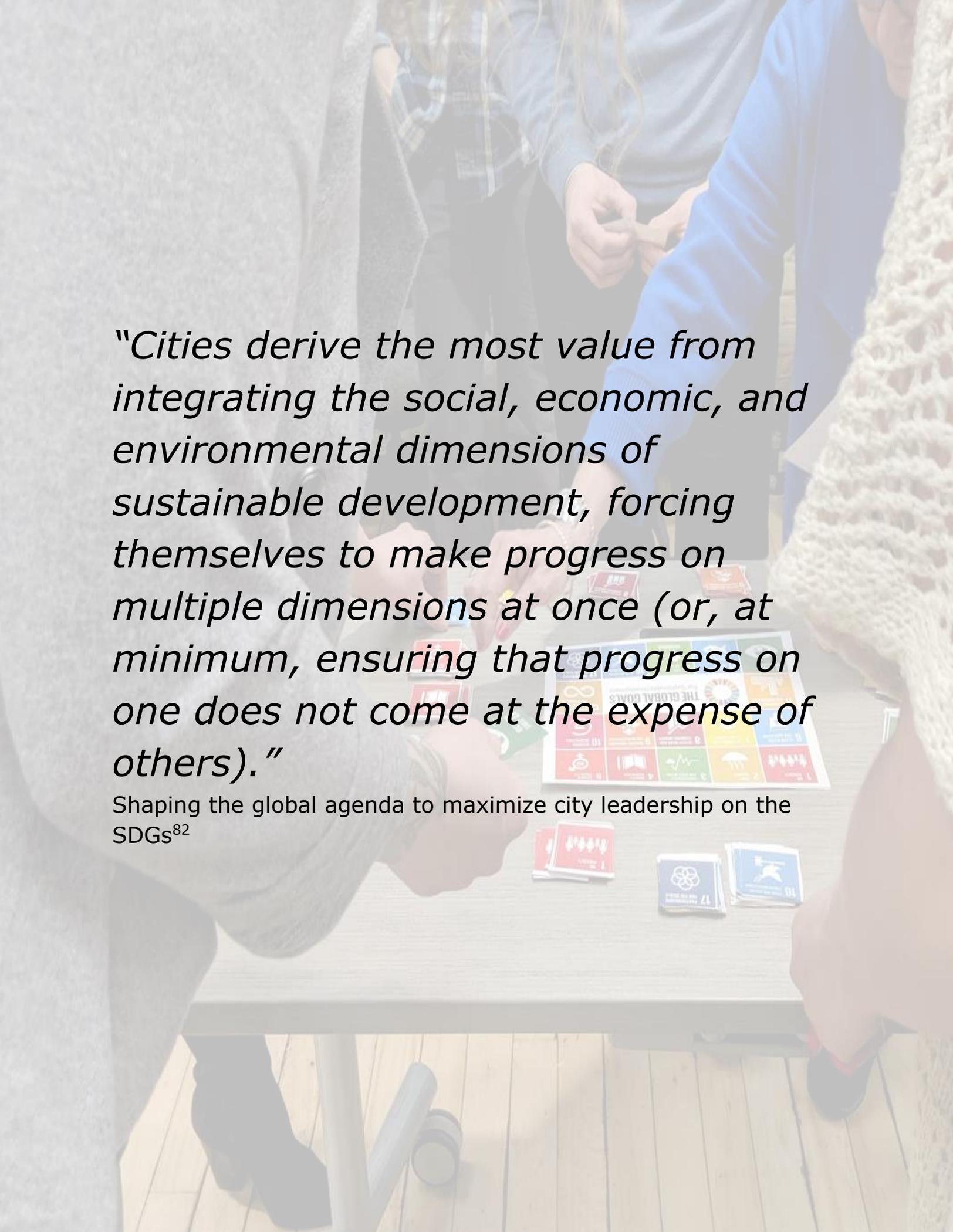
Figure 12. Number of indicators per goal in the local and original set.

Looking more closely at the local of indicators it is noticeable that goals that have more indicators tend to be goals where there has been more local emphasis as well. This can be seen by comparing Figure 12 with Figure 10 show that SDG11, SDG8, and SDG3 match as having high levels of indicators. SDG1 in the final list stands out as increasing quite a bit compared to how it was weighted in Figure 10, but this was bolstered by a newly created “Dimensions of Poverty Hub” by Statistics Canada which laid out several new variables to measure these dimensions and the emphasis in SDG literature that ending poverty is among the top priorities. For example in one 2030 Agenda document⁸¹ No Poverty (SDG1) is highlighted the following way: “We recognize that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.”

The goals No Poverty (SDG1), Good Health & Well-Being (SDG3), Decent Work & Economic Growth (SDG8), and Sustainable Cities and Communities (SDG11) have the highest number of indicators. These areas align with other reports that highlight similar areas as highly interconnected to other goals and are likely a good starting point for developing public engagement processes and direction on where to start populating the data set.

One a final note on the localized list is that there are 17 indicators that we have duplicated across areas. For example, The Wage Gender Gap indicator applies to SDG5, SDG8 and SDG10, each goal referring to equality in various ways.

The next chapter outline what we learned from this process, what we believe will be required to make strong progress on these goals locally and briefly outlines our next steps.



"Cities derive the most value from integrating the social, economic, and environmental dimensions of sustainable development, forcing themselves to make progress on multiple dimensions at once (or, at minimum, ensuring that progress on one does not come at the expense of others)."

Shaping the global agenda to maximize city leadership on the SDGs⁸²

5. LESSONS LEARNED

The intention to provide a shared language and measurement among public, private and nonprofit sectors from diverse areas is to better understand our challenges and how we are addressing them. Our hope is that this deeper knowledge will be conducive for collaboration and accelerating our progress towards sustainability.

The deliverables of our 2030 Agenda efforts, so far, include:

- a list of city-based indicators
- an initial dataset to start populating the local indicators
- an overview of the most relevant local issues seen through the SDG framework
- a growing network of stakeholders aware and/or involved with the SDG framework

Despite the tangible outcomes achieved, this has not been a straightforward path and some of the lessons we learned are instrumental to shape the work ahead.

Trade-offs

One of the most important lessons learned early in the process of creating a list of local indicators was to recognize that a few of the objectives are to some extent mutually exclusive. This is similar to a Pareto-like⁸³ scenario where it is impossible to make one preference criterion better off without making at least one preference criterion worse off.

The interim document released by the Government of Canada⁸⁴ recognizes that creating a framework of indicators requires considering a number of trade-offs, including:

Completeness vs. simplicity: Maintain a balance between the need to encompass everything that is relevant or important and having a framework that is too large and complex. If everything is considered a priority, nothing can truly be prioritized. In the age of information overload is crucial to reduce as much as possible the number of indicators without compromising the availability of relevant information.

Relevance vs. comparability: Maintain a balance between indicators that highlights different regional and specific issues and comparable indicators from coast to coast to coast. Some of London, Ontario's challenges are shared with other cities in Canada, having standardized metrics helps better expose those issues and can inform a coordinated national effort. However, our unique local challenges cannot be overlooked.

Static vs. adaptive: Maintain a balance between a framework of indicators to track today's progress to 2030 and a flexible framework that will incorporate important issues as they emerge. Measuring is merely a means to help achieve sustainability. Part of its power lies in understanding changes over long periods of time. For that reason, it is desirable to adopt a fixed set of indicators. As challenges, people and processes evolve, new indicators might become more effective.

Bottom-up vs. top-down: Maintain a balance between a common but top-driven framework of indicators and a framework that incorporates the diversity of perspectives of different stakeholders. The global goals offer a broad perspective of social, economic and environmental issues and shed some light on many topics that are not necessarily part of the general public discourse. That serves as a great starting point for engaging local champions with deep knowledge on the most pressing challenges. It is obvious that the different realities around the world and even within the same country makes the one-size-fits-all approach unattainable. "In cases where the organization was explicitly working toward an SDG target, they tracked SDG indicators. In all other cases, the SDGs are currently used more as a guiding framework. A common refrain, particularly from community organizations, was that the SDG indicator framework was not aligned with their organization's data needs. This points to the need for further efforts in localization of the SDGs to increase their perceived relevance to companies and communities."⁸⁵

Integration

It is increasingly evident that the social, economic and environmental crisis that we are facing today are intricately connected. One of the main drivers for this work was to address their interdependencies. The two main learnings related to this are:

During the process of identifying the areas that need attention and their most relevant metrics, it was possible to see more clearly how they actually affect each other.

A scientific analysis⁸⁶ of the integration of the seventeen sustainable development goals show that there are social and environmental goals among the four most synergistic goals: Zero Hunger (SDG2), Good Health (SDG3), Clean and Affordable Energy (SDG7), and Life Below Water (SDG14). Addressing those four goals can leverage the remaining eleven goals. Even though the assessment found 238 positive interactions and no fundamental incompatibilities, it also identified 66 negative interactions. This demonstrates that there are strong connections among the goals and they are not necessarily always a good thing. Awareness of those

potential constraints require coordinated policy interventions to shelter the most vulnerable groups, and manage competing demands over natural resources.⁸⁷

That integration can be found in any of the SDGs. Sustainable Cities and Communities (SDG11) is a more obvious example because it is a goal that touches on environmental (solid waste, air quality), social (public safety, participatory processes) and economic issues (housing, transportation).

To give a practical example, writer and environmentalist Katharine Wilkinson shows how “gender equity and climate change are inextricably linked”⁸⁸. Wilkinson explains how prolonged scarcity and natural disaster are conducive to early marriage scenarios and forced prostitution. On the other hand, women are the primary smallholder farmers of the world, responsible for 60 to 80% of food production in lower-income countries, even though they have less rights and resources. Addressing the gender gap would increase the yield by 20 to 30%. The increased production of more nutrient-rich food using less land would have a significant impact on health, hunger, poverty, and forest preservation.

Otto Scharmer⁸⁹ reinforce the social-environmental link between food and climate when he cites research from Project Drawdown that shows that 12 of the top 20 effective ways to reverse global warming today are related to the transformation of food production, agricultural practices, and land use. “The solutions to reverse global warming are the same solutions to food insecurity”⁹⁰

Social, economic and environmental are still largely seen as separate. It is necessary to be aware of that when communicating this new approach either by making very explicit connections or intentionally crossing the lines between the three areas.

Because people are more receptive to communication that fits their beliefs, sustainability communication could improve by moving beyond targeting the obvious elements (for example, environmental sustainability for climate change, social sustainability for equality). For example, communication about SDG4 (Education) could highlight how it improves people’s quality of life (social), increases economic productivity (economic) and helps people to understand the importance of preserving the natural world (environmental). This study complements evidence from climate change communication demonstrating that a focus on social or economic outcomes can be as effective as focusing on its environmental effects.⁹¹

Local Matters

On the one hand, we are a hyper-connected species in a global scale, many of us have an opportunity to see, access and visit different parts of our world⁹². On the other hand, even greater numbers are denied access to basic services even in their own city.

We are facing global challenges such as climate change and financial crashes with ripples effect in economies around the world. The 2030 Agenda, through the Sustainable Development Goals, provides a shared language to better understand the multiple aspects of our shared crises. Every country and sub-regional authority needs to play its part to find and implement solutions to address those problems.

However, the SDG framework recognizes that the diverse realities require diverse responses and most of the work needs to be done at the local level⁹³. According to Richard Florida, head of the Martin Prosperity Institute at the Rotman School of Management at the University of Toronto "place is actually more important to the global economy than ever before."⁹⁴ He argues that some cities offer more opportunities than others and as they attract people and talent, they become increasingly attractive and creating an even "spikier world" (a reference to the exponential growth of large cities and concentration of wealth and knowledge). Leave no one behind, one of the main principles of the 2030 Agenda is only achievable if we are looking up-close, not from a global perspective. This is also captured in the Community Foundation Canada report⁹⁵ when it affirms that "the mandate of 'no one left behind' requires authentic engagement with marginalized populations, which can only be done at the local level, and requires existing relationships between marginalized populations and community organizations."

In line with this diversity perspective, global thinking itself can be questioned⁹⁶ and a pluralism that embraces distinctive cultural variety and enables many paths to the realization of the Sustainable Development Goals can be adopted by each city to address its education, well-being, religious practices, water supply, food security, solid waste, belonging, local industry and many other aspects that form their unique city life.

It is the local champions from government, private and non-profit corporations who are able to identify the most urgent needs and have the legitimacy to build a local network to tackle those issues. In a world where living alone is a global trend that is reshaping our societies, public sociologist Eric Klinenberg uses the concept of social infrastructure⁹⁷ to demonstrate the importance of community and collaboration.

Shared Ownership

The implementation of the sustainable development goals is an ongoing community effort that started before the creation of the 2030 Agenda. There are initiatives from all three sectors addressing many social, economic and environmental challenges in our city. The community feedback identified several of those collaboration efforts composed by different groups and with various degrees of alignment among each other.

By providing a shared language, the SDG framework can be helpful to:

- Increase awareness among the different initiatives
- Promote a better understanding of how they affect each other thus creating conditions for coordinated interventions with a higher impact
- Foster cross-sector collaboration
- Optimize resources by using the same datasets and formats that could reduce “the data collection burden on community organizations.”⁹⁸

There are a few different roles in order to establish a local SDG framework:

- Promoters: groups or individuals that are sharing the local SDGs through training, info session, different types of publication and any other form of promotion.
- Data partners: groups or individuals that can collect or provide data to feed the local indicators, as well as manage the local SDG datasets.
- Designers: institutions that identify, create and manage the local set of indicators.
- Implementers: institutions that use the local SDGs to measure or evaluate their own impact or impact from other organizations
- Funders: institutions that sponsor the other roles.
- Connectors: any group or individual that strengthens the network by connecting two or more members.

6. NEXT STEPS

The ultimate goal of this work is to foster a sustainable development locally and globally. The scope of this work provides some of the necessary conditions to:

1. Identify what metrics we need to use to move towards sustainable development;
2. Track our progress to inform the best course of action towards sustainable development;
3. Recognize the interconnections among those challenges to create a systemic approach towards sustainable development;
4. Raise awareness about the challenges we are facing as a society to garner support for collecting/sharing information and taking action.

The next steps to implement the four aforementioned conditions include:

- Create an online platform to share information about our progress
- Host an SDG Leadership program as part of an ongoing engagement strategy of influential stakeholders for sharing information and taking action
- Expand partnerships for collecting data and updating the indicators datasets
- Put together a Voluntary Local Review for a systematic approach raise awareness, increase commitment and mobilize new partnerships

The revision of the local indicators will occur in parallel with the structuring of the local datasets. Consequently, one or more interfaces will be implemented to enable different data providers to keep the information up to date and data users to track and monitor progress on the local indicators. This will also pave the way for writing our London's Voluntary Local Review.

Putting together a robust VLR benefits from engagement with different internal offices and leadership, and serves as a useful tool to break down siloes and enable staff to assess the city's progress and come up with interlinked solutions. Similarly, engagement with external stakeholders during the development of a VLR can catalyze new partnerships and contributions to SDG priorities. Clarity and honesty about gaps and lagging performance will enable maximum learning, and must be part of the core

Anthony Pipa⁹⁹

Recognizing that cities are complex and dynamic systems, we anticipate that a periodic review of the local indicators set will be necessary as priorities and challenges change overtime. Ensuring the list of local indicators stays relevant, keeping the information up to date and the community engaged will require ongoing efforts.



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SECTION 6 – NEXT STEPS

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Appendix I

Column	Description
Target	Original UN target
Indicator	Original UN indicator
Target assessment	Classification of SDG outcome targets in Canada performed by the Brookings Institute
StatCanada Indicator	National indicator developed by the Sustainable Development Goals Data Hub
Considerations	General notes about the UN indicator in the local context
Local documents	Reference to relevant local documents that address the indicator
Evaluation	Using the decision tree in Figure 3, choose one of the five possible categories and fill the cell with '1'. Leave the other four categories empty
Suggested local indicator	Optional. Fill this information if there is an existing or potential local indicator.

A template ready to use is available in different formats for download at the following website:

<http://povertyresearch.ca>

Please see the **Instructions** tab on the spreadsheet to learn how to use it.

Appendix II

Full list of original SDG indicators and their preliminary assessment.



Indicator	Category
1.1.1	Park
1.2.1	Maintain
1.2.2	Proxy
1.3.1	Maintain
1.4.1	Proxy
1.4.2	Proxy
1.5.1	Park
1.5.2	Park
1.5.3	Discard
1.5.4	Maintain
1.a.1	Proxy
1.a.2	Proxy
1.a.3	Maintain
1.b.1	Proxy



Indicator	Category
2.1.1	Proxy
2.1.2	Maintain
2.2.1	Park
2.2.2	Maintain
2.3.1	Maintain
2.3.2	Maintain
2.4.1	Proxy
2.5.1	Discard
2.5.2	Maintain
2.a.1	Park
2.a.2	Discard
2.b.1	Discard

2.c.1	Discard
-------	---------



Indicator	Category
3.1.1	Maintain
3.1.2	Park
3.2.1	Maintain
3.2.2	Maintain
3.3.1	Maintain
3.3.2	Maintain
3.3.3	Discard
3.3.4	Maintain
3.3.5	Park
3.4.1	Maintain
3.4.2	Maintain
3.5.1	Maintain
3.5.2	Maintain
3.6.1	Maintain
3.7.1	Proxy
3.7.2	Maintain
3.8.1	Proxy
3.8.2	Proxy
3.9.1	Park
3.9.2	Park
3.9.3	Park
3.a.1	Maintain
3.b.1	Maintain
3.b.2	Discard
3.b.3	Park
3.c.1	Maintain
3.d.1	Park



Indicator	Category
4.1.1	Maintain

4.2.1	Proxy
4.2.2	Maintain
4.3.1	Proxy
4.4.1	Proxy
4.5.1	Maintain
4.6.1	Maintain
4.7.1	Park
4.a.1	Park
4.b.1	Discard
4.c.1	Park



Indicator	Category
5.1.1	Maintain
5.2.1	Maintain
5.2.2	Maintain
5.3.1	Park
5.3.2	Park
5.4.1	Maintain
5.5.1	Localize
5.5.2	Maintain
5.6.1	Park
5.6.2	Park
5.a.1	Park
5.a.2	Discard
5.b.1	Park
5.c.1	Localize

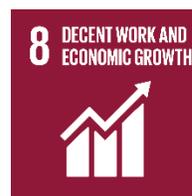


Indicator	Category
6.1.1	Park
6.2.1	Park
6.3.1	Maintain
6.3.2	Maintain
6.4.1	Proxy

6.4.2	Maintain
6.5.1	Maintain
6.5.2	Park
6.6.1	Proxy
6.a.1	Discard
6.b.1	Maintain



Indicator	Category
7.1.1	Park
7.1.2	Proxy
7.2.1	Maintain
7.3.1	Maintain
7.a.1	Discard
7.b.1	Park



Indicator	Category
8.1.1	Maintain
8.2.1	Maintain
8.3.1	Proxy
8.4.1	Proxy
8.4.2	Proxy
8.5.1	Maintain
8.5.2	Maintain
8.6.1	Maintain
8.7.1	Park
8.8.1	Maintain
8.8.2	Park
8.9.1	Maintain
8.9.2	Proxy
8.10.1	Park
8.10.2	Park
8.a.1	Discard
8.b.1	Localize



Indicator	Category
9.1.1	Park
9.1.2	Maintain
9.2.1	Maintain
9.2.2	Maintain
9.3.1	Maintain
9.3.2	Maintain
9.4.1	Maintain
9.5.1	Maintain
9.5.2	Park
9.a.1	Discard
9.b.1	Maintain
9.c.1	Park



Indicator	Category
10.1.1	Maintain
10.2.1	Maintain
10.3.1	Maintain
10.4.1	Maintain
10.5.1	Discard
10.6.1	Discard
10.7.1	Discard
10.7.2	Discard
10.a.1	Discard
10.b.1	Discard
10.c.1	Park



Indicator	Category
11.1.1	Proxy
11.2.1	Proxy
11.3.1	Maintain
11.3.2	Localize
11.4.1	Localize
11.5.1	Park
11.5.2	Park
11.6.1	Maintain
11.6.2	Maintain
11.7.1	Maintain
11.7.2	Maintain
11.a.1	Proxy
11.b.1	Park
11.b.2	Maintain



Indicator	Category
12.1.1	Localize
12.2.1	Maintain
12.2.2	Maintain
12.3.1	Maintain
12.4.1	Discard
12.4.2	Maintain
12.5.1	Localize
12.6.1	Maintain
12.7.1	Localize
12.8.1	Park
12.a.1	Discard
12.b.1	Maintain
12.c.1	Discard



Indicator	Category
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13.1.1	Park
13.1.2	Park
13.1.3	Maintain
13.2.1	Localize
13.3.1	Park
13.3.2	Park
13.a.1	Discard
13.b.1	Discard



Indicator	Category
14.1.1	Discard
14.2.1	Park
14.3.1	Discard
14.4.1	Park
14.5.1	Discard
14.6.1	Discard
14.7.1	Discard
14.a.1	Discard
14.b.1	Discard
14.c.1	Discard



Indicator	Category
15.1.1	Maintain
15.1.2	Maintain
15.2.1	Proxy
15.3.1	Proxy
15.4.1	Discard
15.4.2	Discard
15.5.1	Maintain
15.6.1	Localize
15.7.1	Park
15.8.1	Localize
15.9.1	Localize

15.a.1	Maintain
15.b.1	Maintain
15.c.1	Park



Indicator	Category
16.1.1	Maintain
16.1.2	Maintain
16.1.3	Maintain
16.1.4	Maintain
16.2.1	Maintain
16.2.2	Maintain
16.2.3	Maintain
16.3.1	Maintain
16.3.2	Maintain
16.4.1	Park
16.4.2	Park
16.5.1	Park
16.5.2	Park
16.6.1	Maintain
16.6.2	Maintain
16.7.1	Maintain
16.7.2	Maintain
16.8.1	Discard
16.9.1	Park
16.10.1	Park
16.10.2	Localize
16.a.1	Discard
16.b.1	Maintain



Indicator	Category
17.1.1	Maintain
17.1.2	Maintain
17.2.1	Discard

17.3.1	Discard
17.3.2	Park
17.4.1	Park
17.5.1	Discard
17.6.1	Discard
17.6.2	Maintain
17.7.1	Discard
17.8.1	Maintain
17.9.1	Discard
17.10.1	Discard
17.11.1	Discard
17.12.1	Discard
17.13.1	Discard
17.14.1	Proxy
17.15.1	Discard
17.16.1	Localize
17.17.1	Maintain
17.18.1	Localize
17.18.2	Localize
17.18.3	Localize
17.19.1	Discard
17.19.2	Park

Appendix III

Alignment between the SDGs and each one of the three local reference documents.

	SDG	London Vital Signs	London For All Tables	City of London Strategic Areas
1	No Poverty	3, 7	2, 4	1, 3
2	Zero Hunger	3, 7	7	1, 3
3	Good Health and Well-being	1, 7	3, 4	2
4	Quality Education	6, 7	2, 6	3
5	Gender Equality	3, 7	1	4
6	Clean Water and Sanitation	5		2
7	Affordable and Clean Energy	5		2
8	Decent Work and Economic Growth	4, 7	2	3
9	Industry, Innovation, and Infrastructure			
10	Reduced Inequalities	3, 7	1, 2	1, 5
11	Sustainable Cities and Communities	2, 7	4, 5, 8	1, 2, 3, 5
12	Responsible Consumption and Production	5	7	
13	Climate Action	5		2
14	Life Below Water	5		
15	Life on Land	5		2
16	Peace, Justice and Strong Institutions	7	1, 8	1, 2, 3, 5
17	Partnerships for the Goals	X	1	

Appendix IV

Full list of localized SDG indicators with name and description. Some indicators are included in more than one goal. When that is the case, the additional SDGs are mentioned after the name.



Local Indicator	Description
Core Housing Need (SDG11)	Percentage of households in core housing need [disaggregated]*
NEET Rates (SDG4, SDG8)	Proportion of youth 15-24 not in education, employment or training (NEET)
Unmet Health Needs (SDG3)	Proportion of population which reported that their health care needs were not met when they needed it during the past 12 months
Poverty rate (LIM-AT) (SDG10)	Proportion of population living below the poverty line [disaggregated]* (Low income measure LIM- AT)
Food Security (SDG2)	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
Asset Resilience	Percentage of the population who can cover unexpected expenses, or reduced income by drawing from assets (eg. bank account) to prevent falling into poverty for a period of three months (savings of approximately \$10,400)
Social assistance Coverage	Percentage of population on social assistance - OW, ODSP [disaggregated]*
Employment Insurance	percentage of unemployed workers receiving EI
Poverty Reduction Budget	Proportion of municipal budget allocated directly to poverty reduction programs
Poverty Gap	Average shortfall below Canada's official poverty line for those living in Poverty (could do this as average shortfall to LIM-AT for those living below the LIM-AT)
Poverty Entry and Exit	Percentage of population who, among two years of filing their taxes either (1) entered low income in the second year after not being in low income the first year; or (2) exited low income the second year after being in low income the first year.
Household Access to basic services	Percentage of households who require assistance to cover basic services or where services have been cut off. (Hydro, Gas, Telephone)
Social Assistance Adequacy	Social Assistance adequacy compared to poverty line LIM-AT - ODSP, OW, OAS



Local Indicator	Description
Food Security (SDG1)	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
Urban Agriculture (SDG15)	Percentage of urban area under productive and sustainable agriculture
Food waste recovery (SDG12)	Total number of lbs of food being diverted from the dump
Obesity (SDG3)	Percentage of population with BMI above normal levels
Food literacy (SDG4)	Number of people exposed to food literacy programs annually
Small Scale food production	Average income of small-scale food producers, by sex and indigenous status
Sustainable Agriculture	Proportion of agricultural area under productive and sustainable agriculture
Food access	Percentage of population within 600m from a grocery store
Food Bank usage	Number of people accessing the London Food Bank [disaggregated]*
Organic Food Production	Number of acres of organic food production (proxy for sustainable food production)



Local Indicator	Description
Obesity (SDG2)	Percentage of population with BMI above normal levels
Unmet Health Needs (SDG1)	Proportion of population which reported that their health care needs were not met when they needed it during the past 12 months
Sense of belonging	Portion of population who would describe their sense of belonging to local community as: very strong; somewhat strong; somewhat weak; very weak.
Maternal Mortality	Maternal mortality ratio
Tuberculosis Incidence	Tuberculosis incidence per 100,000 population
Mental Health	Self-reported levels of mental health and well-being
Hospital visits	Number of hospital visits per year per 1000 of the population
HIV incidence	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations
HepC incidence	HepC incidence per 100,000population
Non-communicable diseases incidence	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease
Substance Use Treatment	Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders

Heavy drinking	Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older)
Adolescent birth	Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group
Tobacco use	Age-standardized prevalence of current tobacco use, including vaping among persons aged 15 years and older



Local Indicator	Description
Food literacy (SDG2)	Number of people exposed to food literacy programs annually
NEET Rates (SDG1, SDG8)	Proportion of youth 15-24 not in education, employment or training (NEET)
Inclusive practices in schools (SDG5)	percentage of schools that have inclusive after school programs or GSA (gay straight alliance)
Educational attainment (SDG10)	Educational Attainment [disaggregated]*
School Class Sizes	Average number of students in elementary schools
Library services	Number of people who accessed free library services in person
International students	Percentage and total Number of International Students in post-secondary institutions by Academic Level
Early Development Instrument - EDI	Developmental status completed on individual children between 3.5 and 6.5 years of age



Local Indicator	Description
Wage gender gap (SDG8, SDG10)	Wages according to National Occupation Classification (NOC) matrix by gender. [Will we be able to see highskilled jobs?]
Violence against women - Intimate Partner Violence	Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age
Violence against Women - general	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence
Women in Council	Proportion of seats held by women in City Council
Women in Leadership	Proportion of women in managerial positions

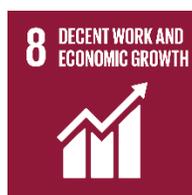
Tracking Gender Equality	Does London have a system to track and make public allocations for gender equality and women's empowerment?
Transgender programs	Number of programs serving transgender people in London
Inclusive practices in schools (SDG4)	percentage of schools that have inclusive after school programs or GSA (gay straight alliance)



Local Indicator	Description
Waste Water Diversion (SDG11)	Proportion of Waste Water safely treated
Safe Drinking Water	Proportion of population using safely managed drinking water services
Watershed Quality	Level of ambient water quality in watersheds (Proportion of bodies of water with good ambient water quality)
Water Use Efficiency	Change in water-use efficiency over time
Transboundary Water Agreements	Proportion of transboundary basin area with an operational arrangement for water cooperation
Water-related Ecosystems Protection	Change in the extent of water-related ecosystems overtime
Water and Sanitation Management	Does London have operational policies and procedures for participation of local communities in water and sanitation management
Water Budget	Total expenditures to (1) manage water systems and (2) funding for Conservation Authorities (3) citizen watch groups



Local Indicator	Description
Energy Cost	Percentage change in cost of energy from previous year
Energy Affordability	Energy consumption as portion of housing costs
Absolute energy use	Total amount of energy used by sector and source
Energy Use	Energy use per capita
Renewable Energy Investments	Total in Canadian dollars invested into renewable energy by municipal and provincial governments
Renewable energy Consumption	Renewable energy share in the total final energy consumption



Local Indicator	Description
Wage Gender Gap (SDG5, SDG10)	Wages according to National Occupation Classification (NOC) matrix by gender. [Will we be able to see highskilled jobs?]
NEET Rates (SDG1, SDG4)	Proportion of youth 15-24 not in education, employment or training (NEET)
Labour Share of GDP (SDG10)	Labour share of GDP, comprising wages and social protection transfers
Living Wage	Percentage of individuals who work full time whose annual before tax employment income is over \$29,484. calculation based on \$16.20 hourly wage working 35 hours/week 52 weeks per year
Unemployment	Unemployment rate, by sex, age and persons with disabilities [disaggregated]*
Work Participation	Participation rate (ages 25-54). Percentage of persons working total number of persons [disaggregated]*
Pensions	Percentage of jobs that provide a pension plan
Employment Benefits	Percentage of jobs that provide employment benefits (health, dental, etc.)
Full-time/Part-time	Percentage of jobs full-time/part-time; employment growth by fulltime/part-time
Labour Standard Violations	Number of labour standard violations per capita
Income Sources	Percentage of city wide income from different sources (Wages; Investment; Social assistance, transfers)
Median Hourly Wage	The hourly wage at which half the population has a higher wage and half the population has a lower wage



Local Indicator	Description
Small-Scale Industries	Proportion of small-scale industries in total industry value added
R&D Expenditure	Research and development expenditure as a proportion of GDP
CO2 Emission/unit of value added	CO2 emission per unit of value added



Local Indicator	Description
Wage Gender Gap (SDG5, SDG8)	Wages according to National Occupation Classification (NOC) matrix by gender.
Labour Share of GDP (SDG8)	Labour share of GDP, comprising wages and social protection transfers
Educational attainment (SDG4)	Educational Attainment [disaggregated]*
Poverty rate (LIM-AT) (SDG1)	Proportion of population living below the poverty line [disaggregated]* (Low-income measure LIM- AT)
Income Inequality	Average Income by Quintile over time
Newcomer Retention	Percentage of immigrants that are still living in London ten years after their arrival
Discrimination	Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law
Bottom 40% income share	Share of total after-tax income held by 40% of the population at the bottom of the income distribution
Income Growth	Growth rate of income per capita among the bottom 40 per cent of the population and the total population



Local Indicator	Description
Waste Water Diversion (SDG6)	Proportion of Waste Water safely treated
Core Housing Need (SDG1)	Percentage of households in core housing need [disaggregated]*
Voter turnout (SDG16)	Percentage of the eligible population who voted: Municipal, Provincial, Federal
GHG emissions (SDG13)	Total amount of GHG emissions per capita and by source
Housing Affordability	Proportion of households who are spending more than 30% of income on housing (rent/mortgage, utilities, insurance, property tax) by Renters vs owners, family status, and number of children
Rental vacancy	Rental Vacancy Rate
Price of Rent	Average rental price for 1, 2, and 3 bedroom apartments
House Price	Average house prices
Mode share	percentage of urban trips by mode (car driver, car passenger, public transit, biking and walking)

Sidewalk coverage	Percentage of street with sidewalks
Active transportation budget	Budget for walking and cycling per capita and per km2
Bike lanes	Ratio of separated bike lanes by total roads
Access to public transit	Percentage of jobs and households within 400m of the Primary Transit Network (by sex, age, persons with disabilities)
Sprawling	Ratio of land consumption rate to population growth rate
Community engagement	Number of votes in Neighbourhood decision making ideas
Community decision-making	Number of Advisory Councils proposals that were accepted and implemented
Open Space	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities
Culture and heritage	Percentage of municipal budget spent on culture and heritage



Local Indicator	Description
Food waste recovery (SDG2)	Total number of lbs of food being diverted from the dump
Social procurement policies	Number of institutions that adopt a social procurement policy (Sustainable public procurement)
Green Economy London	Total number of member organizations at Green Economy London
Waste Production	Amount of waste produced per capita
Waste Diversion	Rate of overall and household waste that is diverted (recycling, composting, reusing)



Local Indicator	Description
GHG emissions (SDG11)	Total amount of GHG emissions per capita and by source
Extreme Weather Events	Incidence of extreme weather events
Environmental Awareness	Total number of members in organizations at London Environment Network
Climate Plan	Does the municipality have a climate action plan?



Local Indicator	Description
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Local Indicator	Description
Urban Agriculture (SDG2)	Percentage of urban area under productive and sustainable agriculture
Forest Area	Forest area as a proportion of total land area
Degraded land	Proportion of land that is degraded over total land area
Native trees	Number of native trees planted yearly
Conservation Funding	Public expenditure on conservation and sustainable use of biodiversity and ecosystems



Local Indicator	Description
Voter turnout (SDG11)	Percentage of the eligible population who voted: Municipal, Provincial, Federal
Sense of belonging (SDG3)	Portion of population who would describe their sense of belonging to local community as: very strong; somewhat strong; somewhat weak; very weak.
Assaults	Proportion of population subjected to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months
Public Service Complaints	Number of complaints filed against public services including City of London and London Police
Civic participation	Number of people who attended public participation meetings
Citizen decision making	Number of Neighbourgood decision making projects adopted permanently by the city

Quality of public service	Level of satisfaction with public services based on feedback of people who used the services
Human trafficking	Number of human trafficking-related charges



Local Indicator	Description
SDG network	Institutions actively involved in developing, maintaining local SDG indicators
SDG events	number of events that address the SDG framework
SDG adoption	Number of institutions adopting SDGs in their policies and/or strategies

* disaggregated = by gender, age, indigenous status, citizenship, Family status, Newcomer, Census Tract Level, City, and CMA