



# WHO AND WHAT GETS LEFT BEHIND?

## ASSESSING CANADA'S DOMESTIC STATUS ON THE SUSTAINABLE DEVELOPMENT GOALS

John W McArthur

Krista Rasmussen



**B** | Global Economy  
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**John W. McArthur** is a senior fellow in the Global Economy and Development program at the Brookings Institution.

**Krista Rasmussen** is a research analyst in the Global Economy and Development program at the Brookings Institution.

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### INTRODUCTION

One of the most important aspects of the Sustainable Development Goals (SDGs), affirmed by leaders of all 193 United Nations member states in September 2015, is that they apply to countries at all income levels. This contrasts with the predecessor Millennium Development Goals (MDGs), which concentrated more on countries grappling with problems linked to extreme poverty. While the 17 SDGs (see Box 1) include many MDG successor targets focused on an absolute global standard of eliminating the most extreme forms of poverty and deprivation, they also include objectives for each society to tackle domestically, relative to its own baseline. For example, all countries agreed to cut their national poverty rate by half by 2030 and to cut their non-communicable disease mortality rate by a third by the same year. These are in addition to targets for common global challenges like fighting climate change and protecting 10 percent of maritime areas by 2020.

Like the MDGs, the SDGs aim to shift trajectories where business-as-usual is not satisfactory (McArthur and Rasmussen 2016, 2017), including in highly

advanced economies like Canada. To that end, this paper draws from existing data sources to present a baseline assessment of Canada's current domestic status toward achieving the SDGs. To our knowledge, it is the first study to present a detailed national and subnational assessment of SDG status within a G-7 economy. It aims to serve as a reference point that can inform policy dialogues in Canada and other advanced economies, and thereby follows the U.N.'s formal SDG architecture of goals, targets, and indicators as much as practical. This "by the book" approach helps to generate a logical framework for translating the full list of SDG targets into a subset of quantitatively assessable outcome targets.

Our approach gives particular attention to the SDG philosophy of "no one left behind." When focusing only on Canada's average national outcomes, it can be easy to forget that each percentage point of the population represents approximately 360,000 people. Even 97 percent population coverage on an issue might first look like success, but it still implies a 3 percent shortfall, equivalent to more than a million Canadians. For SDG targets that commit to a desired outcome for "all" people or "universal" coverage, we therefore interpret

this literally as 100 percent of the population. We supplement the national assessment with an examination of key indicators across Canada's 10 provinces and three territories, in addition to a subset of five major municipalities. We further assess some indicators across various dimensions of disaggregation, including gender, indigenous status, immigration status, and disability status.

Our methodology identifies a total of 78 SDG targets that are outcome-focused, relevant to high-income countries, and quantitatively assessable. This includes targets where the official U.N. language entails at least some quantified wording and targets for which we are able to establish proxy benchmarks. However, not all targets have data available. Drawing from diverse data sources, we are able to assess Canada's national status on 61 targets by evaluating 73 underlying indicators.

The results underscore the relevance of the SDGs to Canada's existing domestic challenges. We find that the country is "on track" for 17 indicators, "needs acceleration" on 12 indicators, and "needs a breakthrough" on 26 indicators. Canada even appears to have been moving backward recently on 18 indicators, such as food insecurity, children overweight, adolescent numeracy, access to safe drinking water, access to affordable housing, share of electricity consumption in renewables, and reported crimes against females. At a sub-national level, we find considerable variation in trajectories across provinces, territories, municipalities, and demographic disaggregates.

Overall, we find that Canada is not yet fully on track for any of Goals 1 through 16. But this does not imply the goals are unachievable. In many cases, the absolute gap to a benchmark is small, prompting forward-looking questions about which groups and issues require the most targeted attention.

Our results should be interpreted with a degree of caution. Conducting a synthesized assessment across disparate SDG targets requires a variety of judgment calls. Some U.N. target language requires interpretation. Alternative proxy targets could be developed to align with different logics. Some official U.N. indicators have data available but are not highly relevant to the corresponding target's core aims, and require substitute indicators to be identified. Some data sources have only limited time-series available to inform a forward-looking trajectory analysis. For all such issues, refinements to our approach may well be possible as new data become available and as Canada further specifies its ambitions across its levels of government. In the meantime, our results draw attention to the frontier economic, social and environmental challenges embedded in Canada's pursuit of the SDGs.

The remainder of the paper is presented in five sections. Section I describes previous studies that are relevant for Canada's domestic SDG assessment. Section II presents an overview of our methodology. Some readers may want to jump straight to Section III to read the core results. Section IV briefly reviews some SDG-relevant national, provincial, and municipal strategies already published. Section V then presents a synthesis discussion and conclusion.

## Box 1: The Sustainable Development Goals

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls
- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts
- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development



## I. PREVIOUS STUDIES

**O**ur deep dive SDG assessment of a single country builds on previous SDG benchmarking exercises. The Organization for Economic Cooperation and Development (2017d), for example, focuses on domestic challenges within advanced economies and assesses the distance each country needs to travel to achieve each of 98 SDG targets by 2030.<sup>1</sup> To fill in the blanks for targets not specifically quantified in SDG target language, the authors either adopt targets from other international agreements or set the relevant standard as the 90th percentile among OECD countries as of 2010. This approach finds that, in aggregate, OECD countries are closest to meeting 2030 targets on health, water, and energy and furthest away on gender equality. Canada is included in the OECD averages but not individually reported because the country did not join the study as a voluntary participant.

The Sustainable Development Solutions Network (SDSN, Sachs et al. 2017) presents two assessments of each country's current SDG status. The first is a "dashboard," which evaluates 157 countries based on 99 indicators deemed to align with the goals. For each indicator, the authors set global thresholds as benchmarks. Not all thresholds align precisely with SDG targets and many are set at a slightly lower standard than the literal SDG wording. For example, countries are considered to have achieved the SDG for universal access to water if they have at least 98 percent coverage. In that context, Canada is deemed already to be successful on 63 of 95 indicators.

The SDSN's second assessment is a synthesis SDG index. It calculates countries' positions on each component measure relative either to the formal SDG target, to another threshold, or—in the case of targets set as proportional change relative to national starting

points—to the average of the top five performing countries. Thus, the best possible index score for access to drinking water is 100 percent, since many countries have already achieved that, while the best possible index score for the target to reduce non-communicable disease mortality by one-third is set at 9.3 deaths per 100,000 people, the current average of the top five countries. Overall, Canada ranks 17th on the global index and is deemed to be 78 percent of the way to achieving the "optimal" SDG outcome.

At a sub-national level, multiple studies benchmark U.S. cities on measures relevant to the SDGs. Prakash et al. (2017) identifies 49 indicators to assess SDG starting positions of the 100 largest American metropolitan areas. Greene and Meixell of the Urban Institute (2017) examine comparable metropolitan areas to identify which SDG targets are relevant and measurable. They find that 103 targets are relevant to U.S. cities and 68 are measurable using publicly available data. They also highlight data gaps in goals that are particularly pertinent to cities, including on water, consumption, climate, and justice. At the level of individual cities, the USA-Sustainable Cities Initiative (2016) identifies indicators that align with both local priorities and SDG targets in Baltimore, Maryland.

Many of the most detailed national SDG analyses have been conducted through Voluntary National Reviews (VNR), whereby countries present their own approach to the SDGs at the U.N.'s annual high-level political forum (HLPF) on sustainable development. A total of 65 countries presented at the first two HLPFs, in 2016 and 2017. Canada has recently committed to present at the HLPF in 2018.

Among advanced economies, Germany's 2016 VNR provides an important reference point for Canada, in light of both countries' federal structures of government.



The German review describes an aim of integrating at least one indicator-based objective per SDG into its National Sustainability Strategy, but does not present an initial domestic benchmarking. In that regard, Finland's 2016 VNR provides a useful example. It maps the suitability and availability of all SDG indicators and finds that less than half have national data available. Sweden's 2017 VNR meanwhile finds that, of 120 indicators deemed relevant and with available data, the country has already met targets for 49 indicators, while noting that many of the targets require more precise ambitions in order to enable future follow-up.

For Canada, we are not aware of any previous comprehensive national SDG assessments, although a number of efforts provide important insights. At a national policy level, the federal ministry of Environment and Climate Change Canada (ECCC) published, in 2016, its *Federal Sustainable Development Strategy 2016-2019*, which benchmarks many environment-related dimensions of the SDGs (see Section V for further discussion). As an independent research assessment during the lead-up to the formal U.N. adoption of the SDG framework, Kindornay et al. (2015) examined seven candidate goals to assess Canadian data availability and quality. That study found particularly pronounced gaps on measures related to governance.

From the perspective of civil society, the British Columbia Council for International Cooperation (BCCIC 2017) compiled recent indicator levels and expert interview results to assess Canada's status on the seven SDGs prioritized at the U.N. HLPF in 2017. It finds that Canada has stark regional and demographic inequalities across goals and prominent challenges in ensuring no one is left behind. The same organization (BCCIC 2016b) also examined more than 2,000 civil society organizations in British Columbia to map where and how they are implementing the SDGs. Such assessments provide an indication of the breadth of early interest on both data and process issues for the SDGs, both inside and outside of Canada. They all serve as complementary resources to the benchmarking exercise presented in this paper.

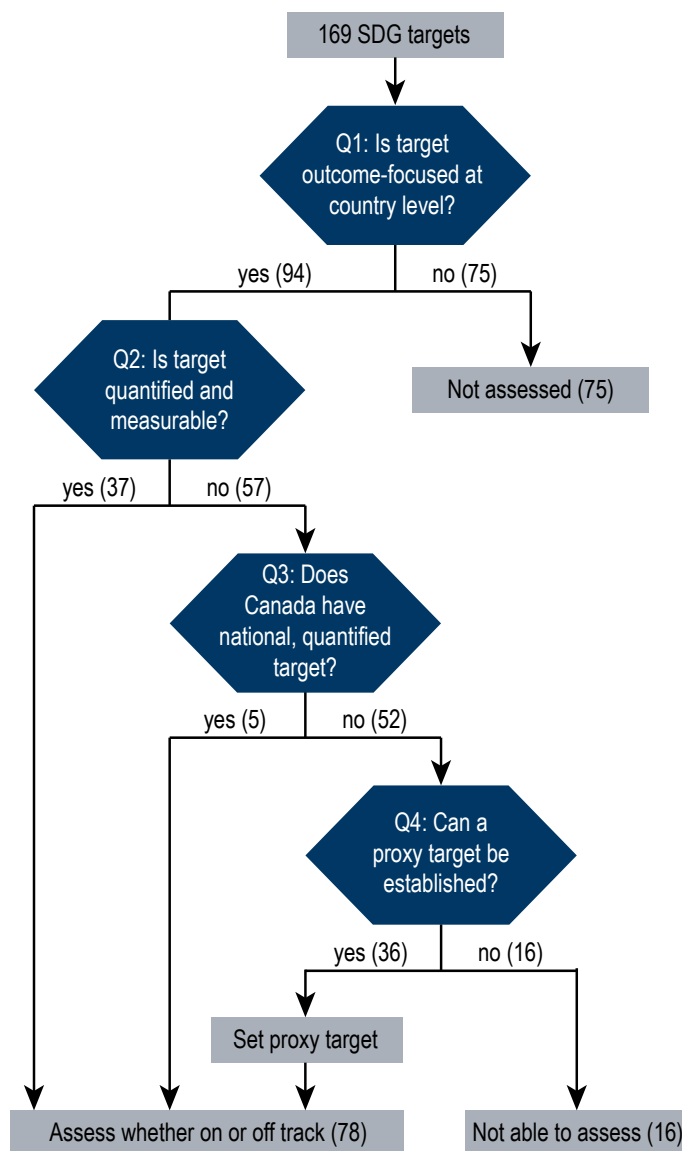
## II. DATA AND METHODS

Our methodology prioritizes the U.N.'s formal framework of targets, indicators, and data. For the Canadian national assessment this entails three basic steps. First, we identify which SDG targets to assess. We do this by identifying targets that are outcome-focused, conceptually relevant to Canada, and adequately quantified and measurable to be “assessable” through either the formal SDG framework or a reasonable proxy measure. Second, we identify data sources for the assessable targets, starting with the U.N. SDG statistical database as the default and supplementing with other sources where needed. Third, we classify each indicator's trajectory relative to the SDG objective. The core elements of these three steps are described below. Further details are available in the online supplement.

### Identifying assessable outcome targets

Figure 1 outlines the sequence of questions we implement to identify assessable, country-level outcome targets. We start by filtering out targets that are not outcome-focused at the country level. This includes all “lettered” targets that focus on means of implementation; all targets under Goal 17; and 13 “numbered” targets that either focus on means of implementation or are not pertinent to advanced economy outcomes.<sup>2</sup> We classify targets as outcome-focused if we can identify any component clause that articulates a desired outcome, which inevitably entails a degree of subjectivity in some instances. The appendix and

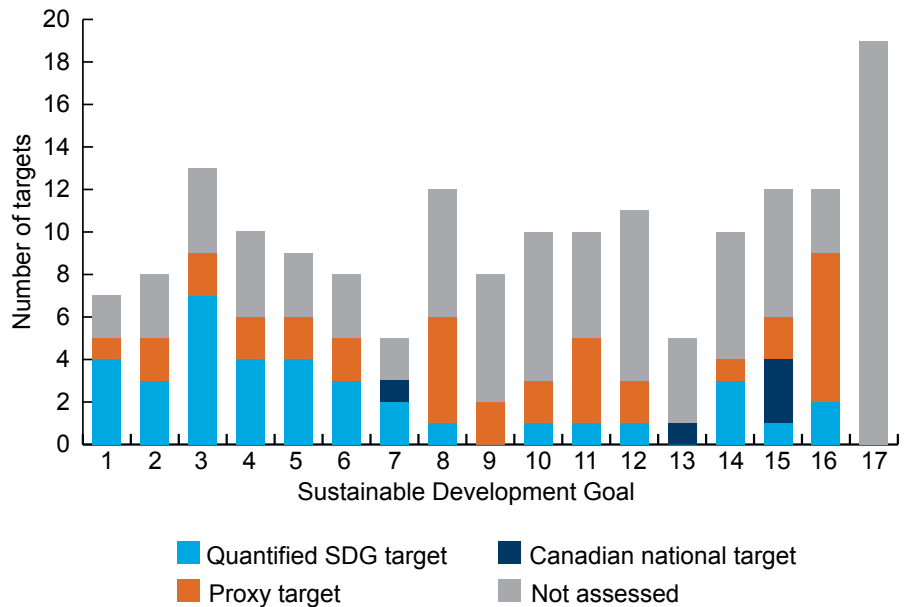
Figure 1. Logic tree for identifying assessable domestic SDG targets in Canada



online supplement provide further details on our classifications for all targets.

We next separate the outcome-focused targets into two groups: those that are both quantified and measurable—meaning they include either an explicit numerical

**Figure 2. Seventy-eight of 169 SDG targets describe potentially assessable outcomes for Canada**



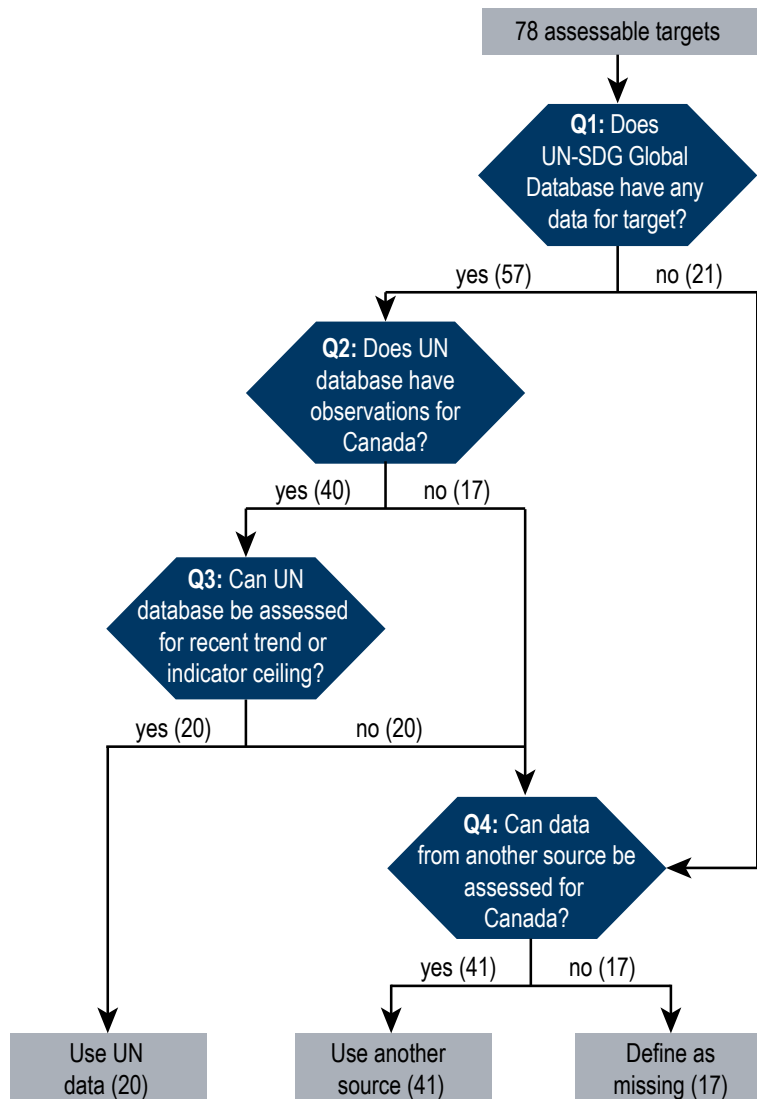
target or an absolute verbal target with a clearly identifiable outcome—and those that are not. This distinction guides whether we can assess progress against the objectives as written in the SDG framework or if we need to set a proxy target. For the targets that the U.N. framework does not formally quantify, we adopt an expansive approach to benchmarking. In five cases, we identify an existing Canadian national target to serve as a substitute. In other cases where target language can be reasonably translated into a measurable objective, we typically set a proxy target of cutting the relevant problem by half by 2030.<sup>3</sup> This results in 78 quantitatively assessable outcome targets. Figure 2 shows the spread of assessable targets across the 17 separate SDGs. The general categorization of 37 quantified SDG targets, 41 proxy targets, and 91 other forms of targets (here not assessed) would apply broadly across advanced economies.<sup>4</sup>

### Identifying indicators and data sources

Figure 3 outlines our approach to identifying data sources. According to the formal SDG framework, our 78 assessable targets can so far be evaluated through 128 official indicators.<sup>5</sup> We primarily use the U.N. SDG Indicator Global Database as the default data source and draw from other sources where needed. We generally draw from information published as of May 2017.<sup>6</sup>

At the time of analysis, the U.N. database contained information for 57 of our 78 assessable targets. Of those, only 20 targets had enough observations to conduct a recent status assessment for Canada.<sup>7</sup> For cases where the U.N. database information is either not available or not analytically appropriate, we make use of two dozen alternative sources and, in particular, Statistics Canada’s online data sets (see online supplement for

**Figure 3. Logic tree for identifying data sources**



details). As a guiding principle, we aim to identify at least one indicator with data for each assessable target, although some targets require multiple indicators to assess multiple imbedded outcomes. For example, for SDG 3.4 on non-communicable disease (NCD) mortality, we use distinct indicators to assess cancer mortality, cardiovascular diseases, and suicide, in addition to a multi-NCD synthesis measure. This approach allows us to conduct a national assessment of 61 targets using 73 indicators.

As mentioned in the introduction, the SDGs have two conceptually distinct types of targets: absolute global standards (e.g., end extreme poverty and hunger; reduce child mortality to no more than 25 deaths per 1,000 live births in every country) and relative national measures (i.e., cut domestic poverty by half; reduce non-communicable disease mortality by one-third). In that regard, of the 37 quantified targets, 29 set an absolute standard and 25 of these have data for Canada.

## Assessing status

The final step is to classify each indicator based on its most recent trajectory. To do so, we extrapolate the indicator's recent trends, assuming progress maintains a business-as-usual trajectory, out to the SDG deadline—usually 2030, although for some targets 2020 or 2025.<sup>8</sup> Next, the trajectory value is compared with the value required for Canada to meet the respective target or proxy target.<sup>9</sup> Then, each indicator is assessed as falling under one of four categories:

- I. **On track:** meaning already achieved or on track for target achievement.
- II. **Acceleration needed:** meaning Canada is currently on course to cover more than 50 percent but less than 100 percent of its starting distance to the target.
- III. **Breakthrough needed:** meaning Canada is on course to cover between 0-50 percent of its starting distance to the target.
- IV. **Moving backward:** meaning the most recent available trend is negative.

For the subnational assessment, we apply a more limited version of this methodology to provinces and territories. We also present a number of indicators disaggregated by gender, indigenous status, immigrant status, and people with disabilities. Few indicators are available for consistent analysis across all forms of disaggregation. The online supplement presents a “crosswalk” describing links between indicators used at the national and disaggregated levels.

## Caveats

Our benchmarking approach has some inherent tradeoffs. First, our logic aligns with the SDG ambition to “leave no one behind,” so the approach draws attention to shortfalls, however small, in reaching universal coverage targets, rather than celebrating proximity to universal coverage. For example, if access to some basic service is on course to climb from 99.4 percent in 2015 to 99.5 percent by 2030, then it is deemed a source of concern with a “breakthrough needed,” rather than an achievement, since less than half the remaining distance to the finish line of 100 percent would be covered. If access to the same basic service had declined from 99.6 to 99.5 percent coverage in recent years, the target falls under the most problematic category of “moving backwards,” instead of something like “still close.”

Second, we extrapolate trajectories on a linear basis for indicators not focused on mortality or economic growth. As a result, recent fast-moving trends might overlook forthcoming “last mile” challenges en route to universal coverage and thereby overestimate current trajectories for 2030. Third, targets anchored in relative domestic benchmarks risk placing a negative light on indicators making large gains in absolute terms but modest gains in proportional terms. To illustrate figuratively, if one indicator starts the SDG period 100 kilometers from its target and only covers 40 kilometers in 15 years, then this covers less than half the distance required and would be categorized under “breakthrough needed.” Meanwhile, another indicator that starts the period 10 kilometers away from its target and is on course to cover only 6 kilometers, for a 60 percent gain, is categorized more positively as “needs acceleration.” So all assessments should be interpreted with such logical tradeoffs in mind.



### III. RESULTS

**T**his section first presents results at the national level, then a cross-section of indicators reviewed across provinces and territories. Select indicators are then disaggregated by some key demographic groupings.

#### National

Table 1 presents an assessment for each of the 61 targets we are able to evaluate, using 73 indicators. This table can be read as an accompaniment to the goal-by-goal discussion below. Numerical values for each indicator are available in the Appendix. A summary table of national results is then presented at the end of the section, on page 19.



#### POVERTY

There is no single answer to how Canada is doing on poverty. The country has already achieved SDG target 1.1, to eliminate the worst forms of dollar-a-day-type extreme global poverty, but there has likely been stagnation on target 1.2, to cut domestic poverty by half by 2030. Canada does not have an official domestic poverty measure, but instead uses a blend of measures to define low-income status through a mix of perspectives.

Here we report on two measures that focus on relevant absolute standards. One is the low-income cut-off (LICO), which measures thresholds below which families likely devote a disproportionately large share of income on necessities of food, shelter, and clothing. The other is the market basket measure (MBM), which reflects the cost of a specific basket of goods and services for a basic standard of living. According

to Statistic Canada, this allows for more detailed geographic refinements than LICO, based on variations in local price levels.

Looking at trends, the share of the national population living below the LICO fell slightly from 10.8 percent in 2005 to 9.2 percent in 2015. Extrapolating a consistent trajectory out to 2030 covers slightly more than half the distance to a benchmark of 4.6 percent, implying acceleration is required. The MBM showed a smaller decline from 12.3 percent to 12.1 percent over the same period (StatCan 2017e), suggesting the need for a breakthrough in rates of progress on that measure.

More positively, Canada has already achieved the target to implement social protection systems for all, and to achieve substantial coverage of vulnerable people. According to the U.N. database, Canada covers 100 percent of its poor and 99 percent of its vulnerable through social protection systems (U.N.-Stat 2017). Meanwhile, Canada's mortality rate from natural disasters was zero from 2014 to 2016, suggesting it is on track for a proxy target regarding resiliency of the poor to climate-related extreme events (Centre for Research on Epidemiology of Disasters 2017).



#### HUNGER & FOOD SYSTEMS

Canada appears to be moving in the wrong direction on measures of food insecurity, obesity, and sustainable agriculture. Rather than ending hunger, the country is moving backwards on the share of the population with moderate and severe food insecurity, which increased slightly from 7.1 percent in 2008 to 7.8 percent in 2012 (StatCan 2012). (More recent data are clearly required for a better assessment.) Regarding the target of ending malnutrition, childhood obesity is also increasing. The share of children ages 2 to 4 who exceed the overweight cutoffs established by the

Table 1. Assessment of Canada's status on domestic SDG targets

Target	Proxy target	Indicator used	Moving backwards	Breakthrough needed	Acceleration needed	On track
1.1 End extreme poverty		Share in extreme poverty				•
1.2 Reduce national poverty by 50%		Share in low income - low income cut-offs			•	
		Share in low income - market basket measure		•		
1.3 Implement social protection for all		Share of poor covered by social protection				•
1.5 Build resiliency of poor to climate-events	P	Mortality rate from disasters				•
2.1 End hunger/food insecurity		Moderate + severe food insecurity	•			
2.2 End malnutrition		Children overweight, aged 2-4	•			
2.4 Ensure sustainable food production systems	P	Nutrient balance - nitrogen, kg/ha	•			
3.1 Maternal mortality < 70 per 100,000 births		Maternal mortality ratio				•
3.2 Child and newborn mortality (< 25 & < 12 per 1,000 births)		Neonatal mortality rate				•
3.3 End AIDS/TB/Malaria epidemics		TB incidence rate		•		
		Mortality rate attributed to NCDs			•	
3.4 Reduce premature mortality from non-communicable diseases (NCDs) by 1/3		Cancer mortality rate			•	
		Major cardiovascular disease mortality rate				•
		Suicide mortality rate		•		
3.5 Strengthen prevention/treatment of substance abuse	P	Annual alcohol per capita consumption	•			
3.6 Halve traffic deaths by 2020		Mortality rate due to road injuries			•	
3.7 Universal access to sexual & reproductive services		Women with family planning needs satisfied			•	
3.8 Universal health coverage (UHC)		Population with coverage of 7 UHC tracer interventions			•	
3.9 Reduce deaths due to pollution & chemicals	P	Mortality rate from household/ambient air pollution			•	
4.1 Ensure all complete primary/secondary education		Upper-secondary graduation rate				•
4.2 Universal access to early childhood education		Early childhood education net enrollment				•
4.5 Eliminate gender disparities in education		Gender differences in mean reading PISA scores		•		
		Gender differences in mean math PISA scores				•
4.6 Achieve literacy and numeracy		Literacy: 2+ on PISA in 15-year olds	•			
		Numeracy: 2+ on PISA in 15-year olds	•			
5.1 End discrimination against all women and girls		Gender wage gap in full-time employees		•		
5.2 Eliminate violence against women and girls		Women experiencing intimate partner violence		•		
		Female victims of police-reported violent crime	•			
5.3 Eliminate harmful practices such as child, early and forced marriage and female genital mutilation		Share of 15-17 year old females who are married		•		
5.4 Recognize and value unpaid care and domestic work	P	Gender disparity in hours of unpaid work		•		
5.5 Ensure women's full participation in leadership	P	Share of seats held by women in national parliament		•		
6.1 Universal access to safe drinking water		Access to improved water	•			
6.2 Access to adequate and equitable sanitation for all		Access to sanitation facilities		•		
6.3 Improve water quality and halve untreated wastewater	P	Wastewater treated	•			
		Freshwater sites rated good or excellent			•	
6.4 Increase water-use efficiency	P	Annual freshwater withdrawals		•		
7.1 Universal access to modern energy services		Access to electricity				•
7.2 Increase share of renewable energy	P	Renewable electricity consumption	•			
	N	Electricity generated from renewable & non-emitting sources			•	
7.3 Double global rate of improvement in energy efficiency		Energy intensity level of primary energy		•		

continued

Target	Proxy target	Indicator used	Moving backwards	Breakthrough needed	Acceleration needed	On track
8.4 Improve resource efficiency in consumption & production	P	Domestic material consumption per unit of GDP			•	
8.6 Reduce share of youth not in employment, education, or training by 2020	P	Youth not in education or employed (age 15-29)		•		
8.8 Protect labor rights, promote safe working environments	P	All-cause DALY rate attributable to occupational risks		•		
8.10 Strengthen capacity of domestic financial institutions to expand access to banking for all	P	Share of adults with account at bank, financial institution, or mobile money				•
9.4 Upgrade infrastructure & retrofit industry to make sustainable	N/P	Emissions of CO <sub>2</sub> per unit of GDP PPP		•		
9.5 Enhance scientific research & increase no. of R&D workers & public-private R&D spending	P	R&D expenditures as share of GDP	•			
	P	Full-time researchers per million inhabitants		•		
10.1 Achieve and sustain income growth of bottom 40% higher than national average		Palma Ratio	•			
10.4 Progressively achieve greater equality	P	Gini coefficient, adjusted after-tax income		•		
11.1 Access to adequate, safe & affordable housing for all		Households spending 30%+ of income on shelter	•			
11.5 Decrease deaths & economic loss from disasters	P	Cost from natural disasters, share of GDP	•			
11.6 Reduce adverse per capita environmental impact of cities	P	PM2.5 annual average concentration				•
11.7 Universal access to safe, inclusive green and public spaces	P	Share with park or green space < 10 minutes from home	•			
12.3 Halve per capita food waste		Food waste		•		
12.5 Reduce waste generation through prevention, reduction, recycling	P	Solid waste diversion rate		•		
	P	Solid waste per capita		•		
13.2 Integrate climate change measures into nat. policy	N	GHG emissions total		•		
14.1 Prevent and reduce marine pollution by 2025		Volume of spills detected				•
		Number of spills detected	•			
14.4 Regulate harvesting & end overfishing by 2020		Major fish stocks harvested above approved levels				•
14.5 Conserve at least 10% of coastal and marine areas by 2020		Share of marine area protected			•	
15.1 Ensure conservation of terrestrial and inland ecosystems by 2020	N	Share of terrestrial area protected		•		
15.2 Sustainably manage forests by 2020	N	Volume wood harvested relative to sustainable wood supply				•
15.4 Ensure conservation of mountain ecosystems	P	Share of important sites protected		•		
15.5 Reduce degradation of national habitats, halt loss of biodiversity, protect threatened species by 2020	N	Species at risk showing trends of recovery		•		
16.1 Reduce all forms of violence and related deaths	P	Rate of homicides			•	
16.2 End abuse, exploitation, trafficking, and violence against children		Rate of sexual violations against children per 100,000 population	•			
16.3 Promote rule of law, ensure access to justice for all	P	Unsentenced detainees as share of overall prison population	•			
16.5 Reduce corruption & bribery	P	Control of corruption		•		
16.6 Develop effective, accountable, and transparent institutions at all levels	P	Confidence in institutions - Justice system and courts		•		
16.9 Provide legal identity for all		Proportion of births registered with a civil authority				•
16.10 Ensure public access to information & protect fundamental freedoms	P	Killing, kidnapping, arbitrary detention, and torture of media, unionists, and human rights advocates				•

Notes: "P" = uses proxy target; "N" = uses Canadian National target

International Obesity Task Force increased from 38 to 42 percent between 2000 and 2015 (Lim et al. 2016).

It is difficult to identify a single Canadian measure pertaining to the target for sustainable food production systems. As a proxy measure, Canada's soil nutrient balance has a surplus of nitrogen, indicating a potential pollution risk. Levels of nitrogen balance increased from 23.6 kilograms per hectare in 2004 to 29.8 in 2014 (OECD 2017e), moving away from the ideal value of zero.



### GOOD HEALTH AND WELL-BEING

Canada has achieved long-term success relative to global health standards, but accelerated progress is still required for the country to meet all the relevant SDG targets. The country surpassed the child mortality SDG standard of 25 deaths per 1,000 live births way back in 1967 and was far ahead of the maternal mortality target of 70 deaths per 100,000 live births as of 1990—the first year for which the World Bank (2017) reports data.<sup>10</sup> Less positively, Canada has shown slow recent progress toward the infectious diseases target to end the AIDS and tuberculosis (TB) (and malaria) epidemics, as evidenced by a limited decline in TB incidence rates, from 5.7 cases per 100,000 people in 2004, down to 5.2 cases in 2014.

Looking at non-communicable disease (NCD) mortality rates, Canada has seen an overall decline in recent years, from 297 deaths per 100,000 in 2000 to 224 per 100,000 in 2015, but needs accelerated progress to meet the target of achieving a one-third reduction by 2030. Trajectories across individual NCDs are mixed. The cardiovascular disease mortality rate, for example, is on track for a one-third reduction by 2030, while cancer mortality is declining but needs acceleration to achieve the same amount of progress (StatCan 2017b). Likewise, suicide mortality rates will require

further acceleration to drop by one-third by 2030 (U.N.-Stat 2017). On a related front, opioids present a growing challenge. As a proxy measure for substance abuse and mental health, alcohol consumption per capita increased slightly from 2005 to 2015, and is hence moving in the wrong direction (Ibid.).

For the target on universal health coverage, we report the share of people who receive seven key tracer interventions (Lim et al. 2016). Under a business-as-usual trajectory, Canada improves on this indicator from 91.5 percent coverage in 2015 to 98.4 percent coverage in 2030, implying that only slightly faster progress is required in order to achieve complete coverage. Similarly, access to family planning will also fall just short of universal coverage by 2030 if current trends continue (Ibid.).

The health target with the earliest deadline is to halve motor vehicle deaths by 2020. Canada is currently only on track to achieve a 25 percent reduction compared to 2013, and hence needs acceleration (U.N.-Stat 2017). Regarding the target to reduce deaths due to pollution and chemicals, progress is ongoing but acceleration is still needed in order to achieve a proxy benchmark of cutting 2015 mortality rates by half by 2030.



### QUALITY EDUCATION

Canada is performing well on educational access and average learning outcomes but faces important challenges on providing essential skills to a significant segment of the population. The country reported an 89 percent upper secondary graduation rate as of 2013 (OECD 2017b) and will reach the 2030 target of 100 percent if recent rates of progress continue. Compared to other advanced economies, Canada ranks consistently near the top on average test scores. The country is on track for girls to achieve gender parity in average math scores on the

test administered by the Programme for International Student Assessment (PISA), although boys trail by a notable margin on average reading scores (OECD 2017c).

Amid the successes, a considerable share of Canadian students are being left behind on proficiency in basic skills. The SDG target on literacy and numeracy aims for all youth to achieve at least functional proficiency. The proportion of students lacking adequate reading proficiency, informed by the share of 15-year olds who score at level 2 or above on PISA, has remained stuck at around 11 percent since 2009. For basic numeracy, the same number has increased from 11 percent in 2006 to 14 percent in 2015 (OECD 2016b). In other words, at least 1 in 10 young people appears to lack basic literacy and numeracy. If these ratios are scaled to the entire population, they would imply that around 3.8 million to 5.2 million Canadians face fundamental skill gaps for the modern economy and society.



#### **GENDER EQUALITY**

Several gender equality metrics are improving in Canada but much faster progress is needed. Starting with the target to eliminate violence against women, dramatic improvement is clearly required. Police reported violent crime against women increased between 2008 and 2011, the only recent years we were able to identify with crime statistics by gender (Vaillancourt 2010, Canadian Centre for Justice Statistics 2013). Gains have also been slow on reducing the share of women who report having ever experienced intimate partner violence, barely down from an estimated 16.9 percent in 2000 to an estimated 16.4 percent in 2015 (Lim et al. 2016).

Among economic indicators, the gender wage gap in full-time employment shows another need for a breakthrough in order to achieve the target of ending discrimi-

nation against women and girls. The gap has fallen only gradually from 21.3 percent in 2005 to 18.6 percent in 2015, far off track from reaching parity by 2030 (OECD 2017a).<sup>11</sup> Progress is also stuck on the target to recognize and value unpaid care and domestic work, for which we use a proxy target of achieving gender parity in hours spent. Between 2005 and 2010, females increased the number of estimated hours spent on unpaid care and domestic work from 15.8 to 16.2 hours per week, while males increased from 10.0 to 10.4 hours per week, resulting in no change in gender disparity (U.N.-Stat 2017).

Looking at other measures of gender inequality, Canada lags in ensuring women's full participation in political leadership. In late 2015, a new federal government appointed half of its Cabinet members as women, but the share of seats in parliament held by women only grew from 21 percent in 2006 to 26 percent in 2016 (U.N.-Stat 2017). A breakthrough is required to reach parity in public office. A breakthrough is also required to achieve the target of ending child marriage. In 2015, 0.04 percent of girls aged 15-17 were married, equivalent to around 1 in 2800 (StatCan 2016b). In absolute terms, this is equivalent to more than 200 girls—arguably a small number, but not yet on track for zero by 2030. Section III includes a more detailed gender-disaggregation of indicators across goals.



#### **CLEAN WATER AND SANITATION**

Remarkably, Canada still struggles to achieve universal coverage for drinking water and sanitation, one of the absolute global standards embedded in the SDGs. The share of the population with access declined from 99.4 percent in 2000 to 98.4 percent in 2015 (WHO and UNICEF 2017). On sanitation, access has remained stuck around 99.8 percent for more than a decade (U.N.-Stat 2017).



These figures translate to over 570,000 people without proper access to water and 70,000 without access to sanitation.

Canada's freshwater resources also appear to need better management. The country is moving in the wrong direction on target 6.3 to halve untreated wastewater, as the treated share declined from 87 percent in 2004 to 84 percent in 2009 (OECD 2017g). (More recent data, once again, would clearly enable better analysis.) For the aspect of the same target to improve water quality, only 40 percent of freshwater sites were rated as being of good or excellent quality in 2011, up only from 34 percent in 2004 (ECCC 2015a). Accelerated progress is required to achieve the proxy target of 70 percent by 2030. Assessing the target on substantially increasing water-use efficiency, Canada's annual freshwater withdrawals remain low as a share of total water resources, which is positive, but additional progress toward greater efficiency has been slow (WDI 2017).<sup>12</sup>



## **AFFORDABLE AND CLEAN ENERGY**

Canada reports universal access to electricity, thus meeting the target for modern energy services, but it still needs major acceleration in terms of efficiency and the share of energy generated by renewables. The target to double the rate of improvement in energy efficiency requires acceleration by definition. Applying that standard to the level of primary energy intensity in the economy implies doubling the annual rate of improvement from 0.18 to 0.36 megajoules per unit of gross domestic product per year (U.N.-Stat 2017).

For the proxy target to cut the share of non-renewable energy by half, we consider measures of both energy generation and consumption. The share of electricity

generated from renewable and non-emitting sources (including nuclear) was 75 percent in 2005 and 80 percent in 2014, suggesting only some acceleration is required in order to meet the Federal Sustainable Development Strategy target of 90 percent generated by 2030 (ECCC 2016a, US EIA 2017). For total final electricity consumption, the share of renewables hovered around 21 percent from 2005 to 2012 and thereby requires a breakthrough (U.N.-Stat 2017).



## **DECENT WORK AND ECONOMIC GROWTH**

Progress on decent work and economic growth has been mixed, if generally moving in a positive direction. The four assessable targets with data speak to a wide diversity of issues that we evaluate through proxy benchmarks. In a positive light, nearly all Canadian adults, 99.6 percent, report having a bank account (U.N.-Stat 2017). Meanwhile, accelerated progress is needed on general resource efficiency, measured against the proxy target to halve domestic material consumption per unit of GDP. This indicator declined from 0.70 kg per unit of GDP in 2005 to 0.62 kg in 2010 (Ibid.).

Among labor-related measures, a persistent challenge is reflected in the SDG target related to the share of youth aged 15 to 29 who are unemployed and not in education. This indicator remained stuck at around 13 percent between 2005 and 2015 (OECD 2017h), implying a breakthrough is needed to achieve a proxy target of cutting the share by half. On workplace safety, the all-cause disability-adjusted life-year (DALY) rate attributable to occupational risks fell only slightly from 499 per 100,000 in 2000 to 473 per 100,000 in 2015. This indicator also requires a breakthrough to achieve the proxy benchmark of a 50 percent reduction by 2030 (Lim et al. 2016).

## 9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE

The official SDG 9 targets are not ideal for assessing performance in an advanced economy. However, among the two assessable targets, the evidence suggests dramatic improvement is needed. Target 9.4 aims to “upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.” As a proxy benchmark, we calculate trajectories for emissions of CO<sub>2</sub> per unit of GDP and compare this to what is required to meet Canada’s 2030 emissions targets. In 2014, Canada released 0.37 kg of CO<sub>2</sub> equivalent per unit of GDP, down only from 0.42 kg in 2005 (U.N.-Stat 2017). This points to the need for a breakthrough if Canada is to reach its implied target of 0.19 kg per unit of GDP by 2030.

Two indicators suggest progress is mixed on the target for “substantially increasing” the number of research and development (R&D) workers and expenditures, which we assess through a proxy target of 50 percent increase by 2030. The number of full-time researchers per million inhabitants grew from 3,900 in 2003 to 4,519 in 2013, but a breakthrough is still required to achieve a target of 6,779 by 2030. Meanwhile, R&D expenditure as a share of GDP fell from 2.0 percent in 2004 to 1.6 percent in 2014 (U.N.-Stat 2017).<sup>13</sup> It is not clear that Canada yet has the science and innovation structures in place to guide its long-term sustainable development success.

## 10 REDUCED INEQUALITIES

As a general rule, indicators and desired outcomes for inequality are all subject to debate, and hence challenging to assess against common standards. Nonetheless, Canada’s

inequality indicators have not changed much over the past decade. We interpret target 10.4, to “progressively achieve greater equality,” as requiring a 0.001 annual decline in the adjusted after-tax Gini coefficient, adding up to a 0.015 decline by 2030. Between 2005 and 2015, this Gini coefficient declined from 0.317 to 0.314, so it requires a breakthrough to meet the proxy target (StatCan 2017d).

For target 10.1, sustaining income growth of the bottom 40 percent at a rate higher than the national average, we consider two measures. There is some evidence that incomes for the bottom 40 percent grew at a faster annual rate than for the total population from 2004 to 2010 (2.14 percent versus 1.93 percent), but more recent trend data are not available, so we do not categorize this indicator’s trajectory. Meanwhile the Palma Ratio, defined as the richest 10 percent of the population’s share of national income divided by the share held by the poorest 40 percent, increased slightly from 1.19 in 2006 to 1.21 in 2013 and is therefore moving in the wrong direction (OECD 2017f).

## 11 SUSTAINABLE CITIES AND COMMUNITIES

The country-level SDG 11 targets are not extremely helpful for assessing the specific challenges in Canada’s cities. A more relevant municipal-level assessment is presented in Section III below. Nonetheless, targets under this goal do provide some important insights into the nature of Canada’s urban challenge. Target 11.1 calls for safe and affordable housing for all. In 2006 and 2011, more than a quarter of households spent 30 percent or more of their income on shelter expenses, a benchmark for high cost of living (StatCan 2013a), with the estimated percentage even increasing slightly.<sup>14</sup> On the risk management front, Target 11.5 aims to reduce the economic loss from

disasters. Canada's estimated total cost from natural disasters as a share of GDP, much of which is concentrated in cities, increased from a three-year average of 0.02 percent over 2003-2005 to 0.10 percent over 2013-2015 (Public Safety Canada 2017).<sup>15</sup>

Canada's cities enjoy reasonably good environmental health conditions. The 2014 average annual air concentration of "particulate matter 2.5"—the concentration of tiny air particles capable of causing severe health damage—was 7.7 micrograms per cubic meter. This represented a slight increase compared to 2004-2006 averages but is still below Canada's ambient quality threshold of 10 micrograms and puts Canada on track for target 11.6 to "reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality" (ECCC 2016b). But on target 11.7 to provide universal access to safe, inclusive green and public spaces, the share of Canadians who had a park or green space less than 10 minutes from home declined slightly from 86 percent in 2011 to 85 percent in 2013 (StatCan 2017c), highlighting the need for a change in direction.



## RESPONSIBLE CONSUMPTION AND PRODUCTION

Canada would benefit from better data for tracking progress on Goal 12. Target 12.3 commits to halving per capita food waste at the retail and consumer level while reducing food losses along the production and supply chains.<sup>16</sup> According to one estimate, 40 percent of food produced in Canada is wasted (Gooch et al. 2010), but we were not able to identify official time series data. In the absence of information suggesting that a major reduction is underway toward only 20 percent food waste by 2030, we err on the side of drawing attention to the issue by highlighting the target as needing a breakthrough.

For the target to "substantially reduce waste generation," we implement a proxy benchmark of halving the problem by 2030. Solid waste per capita declined only 10 percent between 2004 and 2014, from 790 to 706 kilograms, suggesting a breakthrough is required (StatCan 2016e). Another relevant indicator is "solid waste diversion rates," including recycling. This measure improved only slightly from around 22 percent in 2002 to 25 percent in 2012 (ECCC 2016d), far off track from a proxy target of 63 percent by 2030.



## CLIMATE ACTION

We only assess one indicator for Goal 13, which shows that Canada requires a breakthrough rate of progress to reach its greenhouse gas (GHG) emissions target by 2030. Canada has a national commitment to reduce total emissions by 30 percent, from 738 megatons (Mt) in 2005 to 523 Mt in 2030. However, emissions declined just 2 percent overall from 2005 to 2015 (ECCC 2017b), not nearly fast enough to achieve the target. Even after accounting for the prospective implementation of national carbon price floors, Bataille and Sawyer (2016) found that, as of November 2016, GHG emissions are on course to decline only to around 676 Mt by 2030. Note that we do not assess the SDG climate adaptation targets here, due to their lack of measurability within countries.



## LIFE BELOW WATER

Canada has achieved mixed success so far in managing its ocean and marine resources. On target 14.5 to conserve at least 10 percent of coastal and marine areas by 2020, Canada registered 3.4 percent of marine areas protected as of August 2017 (Parks Canada 2017, ECCC 2016c). This is a large jump from only 0.9 percent

protected in 2015, and the government has explicitly committed to reach 10 percent by 2020 (ECCC 2016a). However, accelerated progress is still required to achieve the benchmark (ECCC 2016c). For the target to regulate harvesting and achieve zero overfishing by 2020, the share of major fish stocks reported to be harvested above approved levels declined from 10.3 percent in 2011 to 4.4 percent in 2015 (ECCC 2017c), which is on track for reaching the goal.

Target 14.1 aims to “prevent and significantly reduce marine pollution of all kinds” by 2025. We interpret “prevent all kinds” to mean eliminating marine pollution and use the volume and number of oil spills as an indicator available for Canada. Government data suggest a high degree of year-to-year variability on these measures, but the volume of detected ocean spills was nearly 50 percent lower in 2013-2014 than in 2009-2010, at 4,453 liters compared to 8,110 liters (ECCC 2015b). If that declining trajectory continues unchanged, it leads to zero spills by 2025. However, the number of detected spills per year was nearly twice as high in 2013-2014 compared to 2009-2010, suggesting backward movement. It is not clear if reported changes are due to improved detection or to the occurrence of smaller and more frequent spills.



## LIFE ON LAND

Canada has made progress on sustainable forestry but needs breakthroughs on protecting land area and ecosystems. For target 15.2 to sustainably manage forests, Canada has already achieved its national goal to ensure the ratio of wood harvested relative to sustainable wood supply is less than one by 2020 (Natural Resources Canada, 2016). This compares to target 15.1 for conserving terrestrial ecosystems, where the government has committed to achieve 17 percent protected area by 2020,

but still needs a breakthrough rate of progress to do so, since protected land area only expanded from 8.4 percent in 2005 to 10.6 percent in 2015 (ECCC 2016c).

For the SDG target to halt the loss of biodiversity and, by 2020, prevent the extinction of threatened species, Canada has a similar national target to protect species at risk. As of 2016, only 35 percent of Canada’s species classified as at risk showed trends of recovering (ECCC 2017d). Further, a larger share of species at risk are experiencing worsening trends compared to the share experiencing improving trends, suggesting a breakthrough is required to achieve 100 percent by 2020 (ECCC 2017a). For the narrower SDG target of conserving mountain ecosystems by 2030, we set a proxy benchmark of achieving 100 percent “coverage by protected areas of important sites for mountain biodiversity.” Canada’s value on this indicator has remained stagnant at 12 percent since 2000, implying the need for a breakthrough (U.N.-Stat 2017).



## PEACE, JUSTICE, AND STRONG INSTITUTIONS

Canada is often considered a global model of strong public institutions, but Goal 16 draws attention to the need for accelerated progress in a number of key areas. On the positive side, the country has already achieved target 16.9 to provide legal identity for all. It has also achieved success on target 16.10, to “ensure public access to information and protect fundamental freedoms,” as measured by a zero score on the official U.N. indicator tracking cases of killing, kidnapping, arbitrarily detaining and torturing journalists, media personnel, trade unionists, and human rights advocates. Canada has also made progress in reducing its homicide rate by 20 percent between 2005 and 2015, although acceleration is needed to achieve a proxy target of cutting the rate by another 50 percent by 2030 (U.N.-Stat 2017).

At the same time, Canada lags on other key elements of Goal 16. For target 16.2 to end abuse and violence against children, the country has been moving backward, with police-reported sexual violations against children and youth increasing from 10.8 cases per 100,000 population in 2010 to 12.6 per 100,000 in 2015. This could be due to either an increase in incidence or an increase in reporting. On target 16.3 to ensure equal access to justice for all, the number of unsentenced detainees as a share of the overall prison population increased from 29 percent in 2005 to 35 percent in 2014, moving in the wrong direction from the proxy benchmark to cut in half by 2030.

For target 16.5, to reduce corruption and bribery substantially, we adopt a proxy target of cutting measured corruption by half. According to the Worldwide Governance Indicators project, Canada's scores on control of corruption were materially unchanged over

the period 2005 to 2015 (Kaufmann and Kraay 2016). Perhaps most worryingly for Canadian policymakers, the indicator for target 16.6—“effective, accountable and transparent institutions at all levels”—draws attention to fragility in citizen support. Statistics Canada reported that, in 2013, only an estimated 57 percent of the population had “some” or a “great deal of” confidence in the justice system and courts (Cotter 2015). We were not able to identify a time series for this exact indicator, but a comparable 2003 national survey reported 57 percent had a “great deal” or “quite a lot” of confidence in the justice system (Roberts 2004). We therefore classify this indicator as requiring a breakthrough.

## NATIONAL SUMMARY

Table 2 provides a goal-by-goal synthesis of the above assessment. Each dot represents one of the 73 indi-

Table 2. Summary of Canada's status on domestic SDG indicators

Sustainable Development Goal	Moving backwards	Breakthrough needed	Acceleration needed	On track
1 Poverty		•	•	• • •
2 Hunger & food systems	• • •			
3 Good health & well-being	•	• •	• • • • • •	• • •
4 Quality Education	• •	•		• • •
5 Gender equality	•	• • • • •		
6 Clean water & sanitation	• •	• •	•	
7 Affordable & clean energy	•	•	•	•
8 Decent work & economic growth		• •	•	•
9 Industry, innovation & infrastructure	•	• •		
10 Reduced inequalities	•	•		
11 Sustainable cities & communities	• • •			•
12 Responsible consumption & production		• • •		
13 Climate action		•		
14 Life below water	•		•	• •
15 Life on land		• • •		•
16 Peace, justice & strong institutions	• •	• •	•	• •
	18	26	12	17



cators examined. In total, Canada is on track for 17 indicators; requires acceleration on 12; needs a clear breakthrough on progress on 26; and requires a reversal of negative trends on 18.<sup>17</sup> These results suggest that while Canada has achieved success on many fronts, better rates of progress are still required on many issues.

## Provinces and Territories

National-level assessments can mask substantial sub-national variation. To that end, Tables 3 and 4 present a variety of key indicators for Canada's 10 provinces and three territories. For each indicator, most recent available values are shown as of mid-2017.<sup>18</sup> Where possible, a trend assessment is presented below the indicator, reflecting "on" or "off" track status for 2030. For inequality, a "+" or "-" symbol simply notes whether the 2004-2014 trend was improving or worsening. Coefficients of variation (similar to confidence intervals) are reflected in superscripts where available.

For each indicator in Tables 3 and 4, the province with the best recent level is highlighted in a shaded box and the province with the most problematic level is highlighted in a white box. This draws attention to the fact that different provinces tend to lead and lag on each goal. On many indicators, the territories face larger challenges than the provinces, so instances are also highlighted when the most problematic territorial indicator rates worse than the lagging provincial indicator, as is commonly the case for Nunavut, or when the best territorial indicator rates better than the top province—such as Yukon on GHG emissions. The three territories are unique in that each has a population of less than 50,000 people and a large population share identifying as indigenous—23 percent in Yukon, 52 percent in Northwest Territories, and 86 percent in Nunavut, as of 2011.

Looking at indicators relevant to Goal 1, the LICO measure suggests that Alberta, Newfoundland and Labrador, and Saskatchewan are all on track to halve poverty by 2030. Alternatively, using the market basket measure, no provinces are on track. Interestingly, Alberta also had the highest Gini inequality coefficient in 2014, at 0.319, while Prince Edward Island registered the lowest value at 0.275. Six provinces were already below the national proxy target Gini value of 0.299 described earlier.

On food insecurity, all provinces and territories were off-track, as of 2012, from eliminating the problem by 2030. Noting that we only extrapolate from the 2008 to 2012 trend, most provinces and territories appear stuck or moving in the wrong direction. What differs is the level of food insecurity. Among the provinces, Nova Scotia had 1.4 times the national food insecurity rate, at 10.8 percent of the population. Nunavut meanwhile had an extraordinary 40 percent of its population suffering from food insecurity in 2012.

For basic learning outcomes linked to Goal 4, there is modest inter-provincial variation. On the 2012 Programme for the International Assessment of Adult Competencies (PIAAC) tests for literacy and numeracy, respectively, a score of 2 or more suggests a basic level of proficiency.<sup>19</sup> Prince Edward Island rates highest on literacy and Quebec rates highest on numeracy. Newfoundland and Labrador rate lowest on the same two metrics, with numeracy a particular challenge. Both the Northwest Territories and Nunavut face even bigger learning challenges. In Nunavut, less than half of adults are deemed to have basic proficiency in literacy and numeracy, according to PIAAC.

On Goal 13 for climate change, if we presume each province and territory needs to make a similar 30 percent reduction in its per capita GHGs by 2030, com-

Table 3. Provinces and territories - status assessment on select SDG targets




Goal		SDG 2030 target	National	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland & Labrador	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan	Northwest Territories	Nunavut	Yukon
1	<b>Low-income, 2015</b> Low income cut-offs after tax, % of population	Cut by 1/2	9.2% <sup>+</sup> off	6.1% <sup>++</sup> on	11.7% <sup>+</sup> off	10.0% <sup>+</sup> off	7.4% <sup>++</sup> off	6.0% <sup>++</sup> on	7.3% <sup>++</sup> off	9.3% <sup>+</sup> off	6.3% <sup>+++</sup> off	10.1% <sup>+</sup> off	5.8% <sup>++</sup> on			
	<b>Low-income, 2015</b> Market basket measure, % of population	Cut by 1/2	12.1% <sup>+</sup> off	8.2% <sup>++</sup> off	14.8% <sup>+</sup> off	12.0% <sup>+</sup> off	13.7% <sup>+</sup> off	12.1% <sup>+</sup> off	13.8% <sup>+</sup> off	12.9% <sup>+</sup> off	14.0% <sup>++</sup> off	10.9% <sup>+</sup> off	10.7% <sup>++</sup> off			
2	<b>Food insecurity, 2012</b> Moderate + severe, % of population aged 12+	0%	7.8% <sup>+</sup> off	7.9% <sup>+</sup> off	7.6% <sup>+</sup> off	7.3% <sup>++</sup> off	8.9% <sup>+</sup> off	6.9% <sup>++</sup> off	10.8% <sup>+</sup> off	7.7% <sup>+</sup> off	10.1% <sup>++</sup> off	7.5% <sup>+</sup> off	7.4% <sup>++</sup> off	14.2% <sup>++</sup> off	40.0% <sup>1, +</sup> off	9.8% <sup>++</sup> off
4	<b>Literacy, 2012<sup>2</sup></b> Age 16-65, % scoring 2+ on PIAAC	100%	84%	85%	83%	84%	82%	79%	84%	85%	86%	81%	83%	69%	44%	84%
	<b>Numeracy, 2012<sup>2</sup></b> Age 16-65, % scoring 2+ on PIAAC	100%	77%	78%	78%	78%	72%	68%	75%	78%	78%	79%	76%	59%	33%	75%
5	<b>Female victims of violence, 2011</b> Police-reported violent crime, per 100,000 people aged 15+	0	1,207 off	1,459 off	1,301 off	2,191 off	1,376 off	1,330 off	1,262 off	928 off	1,096 off	1,036 off	2,681 off	11,193 off	15,453 off	4,609 off
10	<b>Gini coefficient, 2014</b> Adjusted after-tax income		0.311 (+)	0.319 (-)	0.308 (+)	0.297 (+)	0.277 (+)	0.293 (+)	0.291 (+)	0.316 (+)	0.275 (-)	0.281 (+)	0.307 (+)			
13	<b>Greenhouse gas emissions per capita, 2015<sup>3</sup></b> Tonnes	12.7 <sup>4</sup>	20.5 off	64.5 off	12.8 off	15.8 off	18.6 on	19.4 off	17.1 on	11.9 on	12.1 on	9.6 off	65.2 off	31.5 on	16.2 off	8.0 on
15	<b>Terrestrial area protected, 2015</b> Share of total land area	17% <sup>5</sup>	11% off	13% off	15% off	11% off	5% off	7% off	10% off	11% off	3% off	10% off	9% off	9% off	10% off	12% off
16	<b>Public confidence in justice system &amp; courts, 2013</b> % of population aged 15+		57%	56%	51%	51%	62%	56%	57%	64%	58%	51%	58%			
	<b>Population (thousands), 2016</b>		36,286	4,253	4,752	1,318	757	530	950	13,983	149	8,326	1,151	45	37	38

Where listed by StatCan: <sup>+</sup> coefficient of variation (CV) < 8%; <sup>++</sup> CV between 8% and 16%; <sup>+++</sup> CV between 16% and 33.3%

Notes: <sup>1</sup> Ten largest communities in Nunavut. <sup>2</sup> See online supplement for standard errors. <sup>3</sup> On and off track calculation based on total GHG emissions. <sup>4</sup> Canada's nationally determined contribution. <sup>5</sup> Federal Sustainable Development Strategy target

Source by goal: 1a, b = CANSIM 206-0041; 2 = CANSIM 105-0547; 4a, b = StatCan (2013b); 5 = CCJS (2013), Vaillancourt (2010); 10 = CANSIM 206-0033; 13 = ECCC (2017b); 15 = ECCC (2016c); 16 = Cotter (2015); population = CANSIM 051-0001

#### Legend

 best recent value, provinces
  best recent value, territory outperforms province  
 most problematic recent value, provinces
  most problematic, territory lags province  
 "on" = on track for SDG, "off" = off track for SDG (where data permits)  
 (+) = recent trend is improving, (-) = recent trend is moving in the wrong direction

pared to 2005 levels, then six provinces and territories are on-track to do so, even if Canada as a whole is not.<sup>20</sup> Importantly, the two provinces with the highest level of per capita emissions in 2015, Saskatchewan and Alberta, also had increasing emissions—in both absolute and per capita terms.

On Goal 15 for land-based ecosystems, no provinces are currently on track to reach the national benchmark of 17 percent of terrestrial area protected by 2020. British Columbia had the highest share of land protected in 2015, at 15.3 percent, and on current trajectory gets closest to the target. At the other end of the spectrum, New Brunswick, Prince Edward Island, Saskatchewan, and Newfoundland and Labrador all had less than 10 percent of area protected. For its part, Quebec increased its protected area at more than twice the average national rate from 2005 to 2015. Nunavut saw a slight decline over the same period.

Linked to SDG 16, public confidence in the justice system and courts shows modest variation between provinces. Ontario has the highest level of estimated public support, with 64 percent expressing a great deal or some confidence in the justice system. In British Columbia, Manitoba and Quebec, only 51 percent conveyed similar confidence. On a relevant measure of female victims of violence, Ontario also has the lowest value reported while Saskatchewan has the highest among the provinces. The situation is notably worse in the three territories, where rates of reported violence against women are starkly higher.

A variety of SDG-relevant health indicators have data available for provinces and territories, as shown in Table 4. Notably, all provinces and territories are on track to reduce their major cardiovascular disease mortality rate by one-third by 2030, even though there is considerable variation in starting points. Conversely,

only the Northwest Territories is on track to achieve one-third reduction in cancer mortality.

The reduction in the TB incidence rate at the national level masks complex regional trends. On current trajectory, New Brunswick and Nova Scotia will both eliminate TB incidence by 2030,<sup>21</sup> but four provinces saw their incidence rates increase between 2005 and 2015: Alberta, Manitoba, Newfoundland and Labrador, and Prince Edward Island. All three territories saw a reduction between 2005 and 2015, but their incidence rates are still considerably higher than the national average.

The mortality rate from motor vehicle accidents is declining in all provinces except for Prince Edward Island, although none are on track to achieve the SDG target of cutting mortality by half by 2020. Ontario has the lowest mortality rates and Saskatchewan has the highest.

On measures of health access, we do not have sub-national data on access to key tracer interventions, as reported nationally in Table 2, but we are able to assess two measures of access to key health services. One is the share of the population reporting having a regular medical doctor. No province or territory is on track to achieve 100 percent coverage by 2030, and regional variations as of 2014 are stark. New Brunswick reports the highest value on this indicator, at 93 percent, while Nunavut reports only 17 percent. Interestingly, Quebec has the lowest doctor indicator value among provinces, at 75 percent, while still registering the lowest cardiovascular mortality rate, providing a clear reminder of the complex pathways between health inputs and outcomes.

A second sub-national measure of access to health services is the share of people reporting unmet or partially unmet mental health care needs. Across provinces, this tracks fairly closely to the national average



Table 4. Provinces and territories - status assessment on select SDG health targets

Goal		SDG 2030 target	National	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland & Labrador	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan	Northwest Territories	Nunavut	Yukon
3	<b>Cancer - malignant neoplasms mortality rate, 2013</b> Age-standardized, per 100,000 people	Cut by 1/3	206 off	193 off	191 off	213 off	215 off	250 off	234 off	197 off	226 off	223 off	206 off	231 on	468 off	281 off
	<b>Major cardiovascular disease mortality rate, 2013</b> Age-standardized, per 100,000 people	Cut by 1/3	184 on	219 on	181 on	218 on	201 on	258 on	215 on	178 on	222 on	162 on	219 on	227 on	255 on	202 on
	<b>Tuberculosis incidence rate, 2015</b> New & re-treatment, per 100,000 people	End epidemic <sup>1</sup>	4.6 off	5.0 off	5.6 off	12.2 off	0.8 on	6.3 off	0.6 on	4.3 off	2.0 off	3.0 off	6.1 off	11.3 off	119.2 off	8.0 off
	<b>Motor vehicle accident mortality rate, 2013</b> Age-standardized, per 100,000 people	Cut by 1/2	6.2 off	9.4 off	5.7 off	7.6 off	7.6 off	6.5 off	8.4 off	4.8 off	11.7 off	5.6 off	12.0 off	8.1 off	16.2 off	8.0 off
	<b>Perceived mental health care needs, 2012<sup>2</sup></b> Unmet or partially unmet needs, % of population aged 15+	100%	5.8%	5.0%	7.2%	6.6%	4.4%	4.6%	7.3%	6.3%	6.1%	4.5%	6.0%			
	<b>Has regular medical doctor, 2014<sup>3</sup></b> % of population aged 12+	100%	85% off	80% off	85% off	84% off	93% off	89% off	90% off	92% off	89% off	75% off	80% off	42% off	17% off	74% off
Population (thousands), 2016			36,286	4,253	4,752	1,318	757	530	950	13,983	149	8,326	1,151	45	37	38

Notes: <sup>1</sup> We define "end the epidemic" as an incidence rate of less than 1 per 100,000. <sup>2</sup> This is a sum of two means; see online supplement for underlying coefficients of variation. <sup>3</sup> See online supplement for 95% confidence intervals.

Source by goal: 3a, b, d = CANSIM 102-0553; 3c = Gallant, et. al (2017); 3e = CANSIM 105-1101; 3f = CANSIM 105-0502; population = CANSIM 051-0001

#### Legend

 best recent value, provinces
  most problematic, territory lags province
  most problematic recent value, provinces

"on" = on track for SDG, "off" = off track for SDG (where data permits)

of 5.8 percent of the total population. However, when considering only those people with a self-identified need for mental health care, the share with unmet needs at the national level rises to over 30 percent, and is as high as 40 percent in Saskatchewan.

Canada's statistical systems are strong enough to disaggregate many provincial-level indicators further by gender, as shown in Table 5. In the first row, the LICO measure of low-income status suggests little statistically distinguishable difference between genders, noting that several provinces have higher bands of uncertainty around the estimated values. But the table also suggests that Canadian females generally experience higher rates of food insecurity than males across the country. The difference between female and male food insecurity ranges from less than 1 percentage point in Quebec to a disparity of 8.9 percentage points in Prince Edward Island. Basic proficiency in literacy is roughly equal between genders, but the figures suggest that approximately 700,000 more adult females than males are being left behind without basic numeracy skills, at 3.1 million compared to 2.4 million.<sup>22</sup>

On health indicators, Canadian males often lag behind females. The gender difference is greatest in major cardiovascular disease. In the Northwest Territories, mortality from cardiovascular disease is more than twice as high in males as in females. Nova Scotia has the greatest discrepancy among the provinces, with males having 1.8 times higher cardiovascular mortality than females. Motor vehicle mortality rates are also gender differentiated, with all provinces having at least double the mortality among males compared to females, although females have higher mortality rates in Northwest Territories and Nunavut.

Police-reported violence against females show considerable differences across regions, again noting that

this could be due both to variation in rates of violence and in rates of reporting. Ontario, the most populous province, recorded rates 23 percent below the national average, while Saskatchewan's rate was more than twice the average. Reported rates in the territories are higher than in the provinces. Nunavut's rate is highest, at 12.8 times the national average; it also has the highest rates of reported violence against males, at 8,650 male victims per 100,000 people.

## Cities

Table 6 presents a selection of indicators for five major metropolitan areas. This includes eight indicators reported at the corresponding provincial level in Tables 3 and 4. Municipalities tend to have similar values to their respective provinces, although there are some variations. Montreal and Toronto both record higher food insecurity than their respective provincial averages, although the difference is only statistically significant for Montreal.<sup>23</sup> As a health service indicator, Montreal also registered 64 percent of the population with a regular medical doctor, compared to a 75 percent provincial average.

Some of the largest discrepancies between city and provincial data are for police-reported violent crime against females. Calgary, Vancouver, and Winnipeg report lower rates than do Alberta, British Columbia and Manitoba, respectively. This potentially suggests that the issue is worse in rural than urban areas in those provinces. Interestingly, each of the five cities also reports higher confidence in the justice system and courts than their provincial averages, suggesting a discrepancy between urban and rural views on public institutions.

Table 6 also includes two indicators directly pertinent to SDG 11 on sustainable cities. One is the share of workers commuting by public transit, bicycle, or walk-



Table 5. Gender disaggregation - status assessment of select SDG targets by province and territory


Goal		SDG 2030 target		National	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland & Labrador	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan	Northwest Territories	Nunavut	Yukon
1	<b>Low-income, 2015</b> Low income cut-offs after tax, % of population	Cut by 1/2	Female Male	9.3% <sup>+</sup> 9.1% <sup>+</sup>	5.7% <sup>+++</sup> 6.5% <sup>++</sup>	11.3% <sup>++</sup> 12.0% <sup>+</sup>	10.0% <sup>+</sup> 9.9% <sup>++</sup>	6.9% <sup>++</sup> 8.0% <sup>++</sup>	7.3% <sup>++</sup> 4.7% <sup>+++</sup>	7.9% <sup>++</sup> 6.7% <sup>++</sup>	9.5% <sup>+</sup> 9.1% <sup>+</sup>	6.2% <sup>+++</sup> 6.4% <sup>+++</sup>	10.2% <sup>++</sup> 10.0% <sup>++</sup>	6.4% <sup>++</sup> 5.2% <sup>++</sup>			
2	<b>Food insecurity, 2012</b> Moderate + severe, % of population aged 12+	0%	Female Male	8.6% <sup>+</sup> 6.9% <sup>+</sup>	8.8% <sup>++</sup> 6.9% <sup>++</sup>	8.9% <sup>+</sup> 6.2% <sup>+</sup>	7.8% <sup>++</sup> 6.7% <sup>++</sup>	9.6% <sup>++</sup> 8.3% <sup>++</sup>	6.9% <sup>++</sup> 6.9% <sup>++</sup>	12.4% <sup>++</sup> 9.1% <sup>++</sup>	8.5% <sup>+</sup> 6.8% <sup>+</sup>	14.5% <sup>++</sup> 5.6% <sup>+++</sup>	7.9% <sup>+</sup> 7.2% <sup>+</sup>	8.3% <sup>++</sup> 6.5% <sup>++</sup>	15.5% <sup>++</sup> 12.9% <sup>+++</sup>	43.8% <sup>1,++</sup> 36.4% <sup>1,++</sup>	10.3% <sup>++</sup> 9.3% <sup>+++</sup>
3	<b>Cancer mortality rate, 2013</b> Malignant neoplasms, age-standardized, per 100,000 people	Cut by 1/3	Female Male	177 246	166 230	165 224	187 252	187 257	223 288	199 285	169 237	170 304	193 270	179 244	195 262	452 515	228 360
	<b>Major cardiovascular disease mortality rate, 2013</b> Age-standardized, per 100,000 people	Cut by 1/3	Female Male	147 230	176 271	147 221	168 276	160 251	210 313	159 290	142 224	175 290	133 199	171 279	139 334	199 288	149 253
	<b>Tuberculosis incidence rate, 2015</b> New & re-treatment, per 100,000 people	End epidemic <sup>2</sup>	Female Male	4.2 4.9	4.9 5.1	5.9 5.2	13.2 11.2	0.3 1.3	4.9 7.7	0.2 1.1	3.9 4.8	4.0 0.0	2.5 3.5	6.2 5.9	9.3 13.3	56.0 178.5	5.4 10.5
	<b>Motor vehicle accident mortality rate, 2013</b> Age-standardized, per 100,000 people	Cut by 1/2	Female Male	3.7 8.7	5.9 13.0	3.6 7.8	4.7 10.4	3.6 11.4	2.4 10.7	3.7 13.2	2.8 6.9	7.6 15.8	3.6 7.6	7.1 16.9	11.4 4.2	18.9 13.4	6.1 10.1
	<b>Perceived mental health care needs, 2012<sup>3</sup></b> Unmet or partially unmet needs, % of population aged 15+		Female Male	7.1% 4.4%	6.5% 3.7%	9.4% 4.9%	9.8% n.d.	5.2% n.d.	5.0% n.d.	9.6% 4.9%	7.3% 5.1%	7.1% n.d.	5.2% 3.7%	8.5% n.d.			
	<b>Has regular medical doctor, 2014<sup>4</sup></b> % of population aged 12+	100%	Female Male	88% 81%	84% 76%	88% 82%	89% 79%	95% 91%	93% 85%	92% 87%	94% 90%	92% 87%	81% 69%	86% 75%	48% 37%	15% 18%	76% 72%
4	<b>Literacy, 2012<sup>5</sup></b> Age 16-65, % of population scoring 2+ on PIAAC	100%	Female Male	82% 83%													
	<b>Numeracy, 2012<sup>5</sup></b> Age 16-65, % of population scoring 2+ on PIAAC	100%	Female Male	74% 80%													
5	<b>Victims of violence, 2011</b> Police-reported violent crime, per 100,000 people aged 15+	0	Female Male	1,207 1,151	1,459 1,301	1,301 1,410	2,191 1,783	1,376 1,272	1,330 1,237	1,262 1,324	928 881	1,096 961	1,036 1,049	2,681 2,127	11,193 7,261	15,453 8,650	4,609 4,042
16	<b>Public confidence in justice system and courts, 2013</b> % of population aged 15+		Female Male	59% 56%													
Population (thousands), 2016			Female Male	18,291 17,996	2,095 2,158	2,395 2,357	662 656	383 374	269 261	484 465	7,111 6,872	76 72	4,187 4,139	570 580	22 23	18 19	18 19

Where listed by StatCan: <sup>+</sup> coefficient of variation (CV) < 8%; <sup>++</sup> CV between 8% and 16%; <sup>+++</sup> CV between 16% and 33.3%Notes: "n.d." indicates data not available; <sup>1</sup> Ten largest communities in Nunavut. <sup>2</sup> We define "end the epidemic" as an incidence rate of less than 1 per 100,000. <sup>3</sup> This is a sum of two means, see online supplement for underlying coefficients of variation.<sup>4</sup> See online supplement for 95% confidence intervals. <sup>5</sup> See online supplement for standard errors.

Source by goal: 1a = CANSIM 206-0041; 2 = CANSIM 105-0547; 3a, b, d = CANSIM 102-0553; 3c = Gallant, et. al (2017); 3e = CANSIM 105-1101; 3f = CANSIM 105-0502; 4a, b = StatCan (2013b); 5 = CCJS (2013); 16 = Cotter (2015); population = CANSIM 051-0001.

Table 6. Municipalities - status assessment across select SDG targets

Goal		SDG target	National	Calgary, AB	Montreal, QC	Toronto, ON	Vancouver, BC	Winnipeg, MB
1	<b>Low-income, 2015</b> Low income cut-offs after tax, % of population	Cut by 1/2	9.2% <sup>+</sup> off	8.3% <sup>+++</sup> off	14.1% <sup>++</sup> off	11.8% <sup>+</sup> off	14.0% <sup>++</sup> off	13.3% <sup>+</sup> off
	<b>Low-income, 2015</b> Market basket measure, % of population	Cut by 1/2	12.1% <sup>+</sup> off	9.8% <sup>+++</sup> off	13.4% <sup>++</sup> off	16.2% <sup>+</sup> off	16.4% <sup>++</sup> off	13.2% <sup>+</sup> off
2	<b>Food insecurity, 2012</b> Moderate + severe, % of population aged 12+	0%	7.8% <sup>+</sup> off	7.5% <sup>++</sup> n.d.	10.7% <sup>++</sup> off	9.5% <sup>++</sup> off	6.7% <sup>+++</sup> on	6.6% <sup>++</sup> n.d.
3	<b>Cancer - malignant neoplasms mortality rate, 2010-12 avg.</b> Age-standardized, per 100,000 people	Cut by 1/3	211 off	173 off	223 off	176 off	168 off	224 off
	<b>Circulatory diseases mortality rate, 2010-12 avg.</b> Age-standardized, per 100,000 people	Cut by 1/3	193 on	200 on	175 on	158 on	156 on	229 on
	<b>Has regular medical doctor, 2014<sup>1</sup></b> % of population aged 12+	100%	85% off	82% off	64% off	89% off	81% off	85% n.d.
5	<b>Female victims of violence, 2011</b> Police-reported violent crime, per 100,000 people	0	1,207 off	843 off	1,053 off	911 off	1,106 off	1,436 off
11	<b>Workers traveling by public transit, bike, or walking, 2011</b> % of workers		19% (+)	22% (-)	29% (+)	29% (+)	28% (+)	21% (+)
	<b>Park or green space close to home, 2013</b> Less than 10 minutes, % of population	100%	85% off	88% off	91% off	85% off	87% off	88% off
16	<b>Public confidence in justice system and courts, 2013</b> % of population aged 15+		57%	62%	54%	68%	55%	52%

**Legend**  
 best recent value      "on" = on track for SDG, "off" = off track for SDG (where data permits)  
 (+) = recent trend is improving, (-) = recent trend is moving in the wrong direction

Where listed by StatCan: <sup>+</sup>coefficient of variation (CV) < 8%; <sup>++</sup>CV between 8% and 16%; <sup>+++</sup>CV between 16% and 33.3%

Notes: "n.d." indicates data not available. <sup>1</sup> See Appendix for 95% confidence intervals.

Source by goal: 1a, b = CANSIM 206-0041; 2 = CANSIM 105-0547, 2013 health boundaries; 3a, b = CANSIM 102-4313, 2015 health boundaries; 3c = CANSIM 105-0502, 2013 health boundaries; 5 = CCJS (2013), Vaillancourt (2008); 11a = NHS (2011); 11b = CANSIM 153-0148; 16 = Cotter (2015)

ing. The national average as of 2011 was 19 percent, and all five cities recorded a higher share that year. Montreal and Toronto were both at 29 percent, with a growing trend, and only Calgary was on a declining trend. The other urban indicator, which links directly to SDG target 11.7, is the share of people living within 10 minutes of a green space. All five cities registered 85 percent or more of their populations satisfying this criterion as of 2013, although none were on track to reach 100 percent by 2030.

### **Demographic disaggregation: by indigenous status, immigration status, and people living with a disability**

Consideration of Canada's 1.4 million indigenous people—including First Nations, Métis, and Inuit—draws attention to many of the country's most glaring inequities. Although relevant disaggregation is not available for many of the indicators listed in the preceding tables, Table 7 nonetheless presents a small sample of relevant indicators by indigenous status. As of 2010, the indigenous child poverty rate was a distressing 38 percent, more than double the rate in the non-indigenous population. Remarkably, the corresponding estimate among on-reserve First Nations communities was much higher the same year, at 60 percent (Macdonald and Wilson, 2016).<sup>24</sup>

Basic needs indicators further underscore the disparities. Food insecurity among indigenous peoples is more than twice the national average. Educational challenges are pronounced, with indigenous populations trailing non-indigenous populations by nearly 8 percentage points on literacy and more than 13 percentage points on numeracy. Although not reported in Table 7, a lack of access to safe drinking water has drawn regular national attention. As of end-July 2017, there were at

least 102 long-term drinking water advisories—meaning advisories in place more than a year—among 101 First Nations communities not located among the three territories, British Columbia First Nations, or Saskatoon Tribal Council (Health Canada, 2017). The figures provide important context for the national shortfall on access to drinking water described earlier.

Returning to Table 7, indigenous populations tend to face greater health challenges than national averages. TB incidence rates among First Nations groups are three times higher than the national average, and among Inuit groups are more than 35 times higher than average. Indigenous people have notably lower reported regular access to a medical doctor, compared to non-indigenous people. Importantly, disease-specific mortality data are not readily available for indigenous populations, so we are not able to report those.

The data suggest that female indigenous people face particular challenges. For example, female food insecurity rates are higher than for males, at 20.0 percent compared to 15.9 percent. Indigenous women also report nearly three times the rate of violence than do non-indigenous women.<sup>25</sup> Such indicators are particularly notable in the context of only 43 percent of indigenous people having confidence in the justice system and courts.

Foreign-born populations can also be tracked on some indicators, reflecting an important issue for a country in which immigration plays such a strong role. Food insecurity is greater among foreign-born than domestically-born populations, but only among immigrants who have lived in Canada for less than five years (StatCan 2012). Health outcomes are a challenge too. The rate of TB incidence and retreatment was more than nine times higher among the foreign-born population than the Canadian-born population in 2015 (Gallant et al. 2017).

Table 7. Indigenous people - status assessment on select SDG targets

Goal		SDG 2030 target	National	Indigenous	Non-Indigenous
1	<b>Child poverty, 2010</b> % of children aged 0 to 17	Cut by 1/2	18%	38%	17%
2	<b>Food insecurity, 2012</b> Moderate + severe, % of population aged 12+	0%	7.8%	18.0% <sup>1</sup>	
3	<b>Tuberculosis incidence rate, 2015</b> New & re-treatment, per 100,000 people	End epidemic <sup>6</sup>	4.6	15.1 First Nations 166.2 Inuit 2.2 Métis	0.6 <sup>2</sup>
	<b>Has regular medical doctor, 2014, Indigenous data from 2012<sup>3</sup></b> % of population aged 12+	100%	85%	76% <sup>4</sup>	
4	<b>Literacy, 2012<sup>5</sup></b> Age 16-65, % of population scoring 2+ on PIAAC	100%	84%	76%	84%
	<b>Numeracy, 2012<sup>5</sup></b> Age 16-65, % of population scoring 2+ on PIAAC	100%	77%	65%	78%
5	<b>Females who experienced violent victimization, 2014</b> Self-reported violent victimization incidents, per 1,000 people aged 15+	0		220 <sup>++</sup>	81
	<b>Males who experienced violent victimization, 2014</b> Self-reported violent victimization incidents, per 1,000 people aged 15+	0		110 <sup>++</sup>	66
16	<b>Public confidence in justice system and courts, 2013</b> % of population aged 15+		57%	43%	58%

Where listed by StatCan: \*coefficient of variation (CV) < 8%; \*\*CV between 8% and 16%; \*\*\*CV between 16% and 33.3%

Notes: <sup>1</sup> Sum of those with "low food security" and "very low food security;" differs from national metric of "moderate and severe food insecurity." <sup>2</sup> Canadian born non-Indigenous. <sup>3</sup> See Appendix for 95% confidence intervals. <sup>4</sup> Percent of population aged 6+. <sup>5</sup> See Appendix for standard errors. <sup>6</sup> We define "end the epidemic" as an incidence rate of less than 1 per 100,000.

Source by goal: 1 = Macdonald & Wilson (2015); 2 = CANSIM 105-0547, 577-0009; 3a = Gallant, et. al (2017); 3b = CANSIM 105-0502, 577-0003; 4a, b = StatCan (2013b); 5a, b = Boyce (2014); 16 = Cotter (2015)

PISA test results indicate that average science scores are comparable among immigrant students and those born in Canada (OECD 2016b). But adult immigrant populations have lower average literacy and numeracy scores than Canadian-born populations. This difference persists even when considering "established immigrants" who have been in Canada for more than 10 years (StatCan 2013b). More than a quarter of that population lacks basic proficiency on literacy skills, twice as high a share as among Canadian-born adults. Meanwhile 33 percent of established immigrants have been estimated to lack basic proficiency in numeracy skills, compared to 19 percent among Canadian-born individuals (StatCan 2013b).

Interestingly, foreign-born populations reported higher confidence in the justice system and courts than Canadian-born populations. Seventy-nine percent of those who immigrated since 2000 had some or a great deal of confidence, as did 69 percent who immigrated before 2000. This compares to just 54 percent among non-immigrants (Cotter 2015).

Disability status represents another important dimension for fulfilling the SDG vision of no one left behind. As of 2012, 3.8 million Canadians, nearly 14 percent of the adult population, reported being limited in their daily activities due to a disability (StatCan 2013e).<sup>26</sup> While the employment rate was 74 percent among those aged 15

to 64 without any disability, the corresponding rate was 36 percent for those with mobility disabilities, 46 percent for pain-related disability, 39 percent for flexibility disabilities, 48 percent for hearing disabilities, and 38 percent for seeing disabilities. Educational challenges are also present among youth. Young people age 15-24 with pain-related disabilities were 1.8 times more likely not to have completed high school than were counterparts without a disability. A more comprehensive assessment would need to collect disaggregated data across SDG-relevant indicators.

## IV. STRATEGIES TO DATE

**T**he final substantive contribution of this paper is briefly to consider the links between Canada's existing domestic policy strategies and the SDGs. As mentioned earlier, the federal government has not yet presented a Voluntary National Review to the U.N. or articulated an overarching SDG strategy. Nor, to our knowledge, has a provincial, territorial, or municipal government yet presented a full SDG strategy. However, a variety of relevant cross-sectoral policy documents have been presented at the federal, provincial, and municipal levels.

### National

At the national level, the Federal Sustainable Development Strategy (FSDS) "outlines federal leadership on climate change and the environment-related 2030 Sustainable Development Goals" for the Ministry of Environment and Climate Change Canada over the period 2016-2019 (ECCC 2016a). The document includes 13 goals and 26 medium-term environmental sustainability targets that cover a variety of time horizons, and presents itself as a living document that will be updated regularly. To our knowledge, no other

existing federal strategy has so far formally articulated an approach to other dimensions of the SDGs.

Some FSDS targets, such as those on climate change and marine protected areas, directly align with SDG targets. At least four FSDS objectives are more ambitious than the corresponding SDG target. For example, the FSDS goal on clean drinking water aims to resolve all long-term drinking water advisories affecting First Nations by 2021, well before the 2030 SDG deadline. FSDS targets on renewable energy, protected land area, and sustainable forests include quantifiable outcome language not present in the SDGs. Meanwhile, several FSDS targets are similarly vague to the SDGs in describing aims, as is the case on sustainable agriculture. The other FSDS targets touch on many of the same issue areas as the SDGs but are not systematically aligned, either focusing on a narrower subtopic or specifying a particular Canadian geography.

### Provincial

We identified at least six provincial strategies published between 2007 and 2016 that cover topics relevant to the SDGs, although none specifically mentions the SDGs. As shown in Table 8, most of these strategies focus on a near-term horizon out to 2019, 2020, or 2021 and each tackles a subset of SDG-relevant topics. Most address, in some fashion, issues of economic development, employment, and education. On the environmental side, they generally address air and water quality, solid waste, and greenhouse gas emissions. Some lack an explicit ambition of identifying groups being left behind. New Brunswick's strategy stands out in this regard, describing the need to close a wellness gap and disaggregating health indicators by geography, gender, age, indigenous identity, and income level.

Table 8. Provincial strategies potentially relevant to SDGs

Province	Year published	Name	Sets targets?	Time horizon	Priority areas
Alberta	2016	2016-19 Government of Alberta strategic plan	Yes	2019	Diversified economy that creates jobs and opportunities for all Albertans; Demonstrated leadership on climate change; Education and training to enable Albertans to succeed in the global economy; Safe and inclusive communities that embrace fairness and equality of opportunity; Sustainable and accessible health care services and social supports
Manitoba	2009	Provincial sustainability report	No	ongoing	Natural Environment (biodiversity and habitat, fish, forests, air, water, climate change); Economy (economic performance, agricultural sustainability, mining, energy efficiency and conservation, consumption and waste management, employment, education); Social well-being (demographics, equity and rights, community and culture, governance, health, justice)
New Brunswick	2014	New Brunswick's wellness strategy 2014-2021	No	2021	Seven dimensions of wellness: Physical; Social; Spiritual; Occupational; Environmental; Emotional; Mental/Intellectual
Newfoundland & Labrador	2016	The way forward: A vision for sustainability and growth in Newfoundland and Labrador	Some	2025	A more efficient public sector; A stronger economic foundation; Better services; Better outcomes
Nova Scotia	2007	Nova Scotia 2020 vision	Some	2020	Ecosystem protection; Air emissions; Renewable energy; Water quality; Contaminated sites; Solid waste; Sustainable purchasing; Energy-efficient buildings
Quebec	2015	Stratégie gouvernementale de développement durable 2015-2020	No	2020	Renforcer la gouvernance du développement durable dans l'administration publique; Développer une économie prospère d'une façon durable – verte et responsable; Gérer les ressources naturelles de façon responsable et respectueuse de la biodiversité; Favoriser l'inclusion sociale et réduire les inégalités sociales et économiques; Améliorer par la prévention la santé de la population; Assurer l'aménagement durable du territoire et soutenir le dynamisme des collectivités; Soutenir la mobilité durable; Favoriser la production et l'utilisation d'énergies renouvelables et l'efficacité énergétique en vue de réduire les émissions de gaz à effet de serre

Table 9. Municipal strategies potentially relevant to SDGs

Major municipalities	Year Published	Name	Sets targets?	Time horizon	Priority areas
Calgary, AB	2012	2020 Sustainability direction	Yes	2020	Community well-being; Prosperous economy; Sustainable environment; Smart growth and mobility choice; Financial capacity; Sustainable corporation
Montreal, QC	2016	Sustainable Montreal 2016-2020	Yes	2020	Low-carbon Montreal: reduce GHG by 80% by 2050; Equitable Montreal: Improve access to services and facilities, fight inequality and promote inclusiveness; Exemplary Montreal: Adopt exemplary sustainable development practices
Toronto, ON	2012	Strategic actions for 2013-2018	Yes	2018	City building; Economic vitality; Environmental sustainability; Social development; Good governance; Fiscal sustainability
Vancouver, BC	2015	A healthy city for all	Yes	2025	A good start; A home for everyone; Feeding ourselves well; Healthy human services; Making ends meet and working well; Being and feeling safe and included; Cultivating connections; Active living and getting outside; Lifelong learning; Expressing ourselves; Environments to thrive in; Collaborative leadership for a healthy city for all
	2012	Greenest city 2020 action plan	Yes	2020	Green economy; Climate leadership; Green buildings; Green transportation; Zero waste; Access to nature; Lighter footprint; Clean water; Clean air; Local food
Winnipeg, MB	2011	OurWinnipeg	Not yet	2035	Sustainable water and waste; Complete communities; Sustainable transportation; Sustainable Winnipeg



## Cities

Table 9 reviews municipal strategies for the same five major Canadian cities included in Table 6. These city strategies tend to have better defined targets than their provincial counterparts. They cover a variety of time horizons, ranging from 2018 for Toronto to 2035 for Winnipeg. As with the provinces, these municipal strategies vary in their level of ambition, and none of the five align fully with the SDGs. Many of the strategies' targets inherently relate to Goal 11 on sustainable cities and communities, including access to green space or parks, affordable housing, and sense of community. Many tackle issues of inequality and economic opportunities. Topics related to Goal 9 on industry, innovation, and infrastructure are common, particularly with respect to public transportation and building efficiency.

## V. SYNTHESIS AND CONCLUSION

**T**his paper presents a framework for assessing Canada's status on the SDGs. It aims to adhere as much as practical to the formal U.N. targets, indicators, and database, while also drawing extensively from other sources, especially for sub-national assessments. Our methodology sorts the 169 SDG targets based on which ones are outcome-focused, quantified, and measurable within advanced economies. This produces a mix of 37 directly quantified targets and 41 proxy targets that could be assessable across all advanced economies. Of these, we identify adequate data to assess Canada on 61 targets using 73 indicators.

Overall, the results underscore the relevance of the SDG framework to Canada's domestic context. On the positive side, the results show Canada's success on many issues. For instance, Canada has surpassed

absolute global standards for extreme income poverty, child mortality, and maternal mortality, while achieving universal access to crucial services like social protection, legal identity, and modern energy. Canada also enjoys some of the best average educational outcomes in the world. At the same time, the results also suggest that Canada is not yet wholly on-track for any of the first 16 SDGs. For each goal, faster progress is needed on at least one indicator.

To stress, our findings should not be interpreted as predictions, nor as a suggestion that Canada is unable to meet any of the goals. Instead, the results mainly draw attention to the people and issues that are currently being left behind amid Canada's pursuit of economic, social, and environmental progress. The country is on-track for 17 indicators; requires acceleration on 12; needs a clear breakthrough on 26; and requires a reversal of negative trends on 18. On many indicators, the absolute distance to the SDG benchmark remains small, but targeted efforts are needed to cover a "last mile."

Among its challenges, Canada's limited gains on measures of low-income status suggest a breakthrough is needed to fulfill the SDG target to cut domestic income poverty by half by 2030. Measures of income inequality have also been stagnant while affordability of housing presents a persistent challenge. Meanwhile, indicators of food insecurity and malnutrition have been moving in the wrong direction. Remarkably, access to drinking water has recently declined too, leaving an estimated 570,000 people without reliable access, a large share of whom are indigenous people.

The SDG targets help illuminate Canada's educational challenge as the world economy enters a period of accelerated automation. The country scores well on measures of access, but a large share of the population is being left behind in terms of basic skills for literacy and

numeracy. Well over 3 million adult Canadians might lack crucial literacy skills while more than 5 million might lack core numeracy skills. These numbers raise pivotal questions of how Canadians can best be supported to develop relevant skill sets at all stages of life.

The range of issues encompassed in SDG 3 draw attention to Canada's relative trajectories for health and well-being. Mortality from non-communicable diseases is declining, although needs to accelerate in most cases in order to achieve a one-third reduction by 2030. Faster progress is also needed to cut traffic deaths by half by 2020. The country is nearly but not quite on track to achieve universal coverage of seven key health interventions by 2030, and in a similar situation for universal access to reproductive health services. More substantial accelerations are required on suicide mortality and infectious diseases like TB. Substance abuse appears to be moving in the wrong direction.

Canada's outlook on environmental issues is mixed. The federal government has established, and made concrete steps toward meeting, SDG-consistent targets for protecting land and marine areas by 2020, although considerably faster progress is still needed on both fronts. The country seems to be on course to end overfishing and keep forest harvests within sustainable levels, but a breakthrough is required to halt the loss of biodiversity. On climate change, Canada requires breakthrough rates of progress to meet its 2030 emissions targets, again despite recent policy advances. Relevant indicators show the need to increase energy efficiency and the share of renewables in energy consumption and production.

Goal 16 for peace, justice, and strong institutions reveals a surprising blend of results. Many aspects of Canada's public institutions are strong, but only

57 percent of the population has clear confidence in the justice system and courts. Indicators are also moving in the wrong direction for reported sexual violations against children and unsentenced detainees as a share of the prison population. Future research focused on Canada's own Goal 16 challenge would clearly be valuable.

Our assessment draws attention to how much progress is still needed for Canada to achieve gender equality. National breakthroughs are needed on the wage gap, gender disparity in unpaid work, violence against women, early marriage, and representation in parliament. Gender disaggregation across provinces and territories suggest that more women than men are food insecure. Women also appear to have more frequently unmet mental health needs.

Exploring SDG-relevant indicators across Canadian geographies shows that different provinces tend to lead and lag on each target for which subnational data are available. Similarly, an assessment of five major cities shows considerable variation, sometimes drawing attention to differences with rural areas. We are also able to evaluate a select number of indicators disaggregated by immigrant status and disability status, highlighting differences in educational outcomes and employment challenges.

There is troubling consistency in the challenges faced by Canada's three territories, particularly Nunavut, where a large majority of the population is comprised of indigenous people. More broadly, we are able to identify a handful of indicators that capture deep overall disparities faced by Canada's indigenous people, including for poverty, food insecurity, access to medical care, reported violence, and faith in public institutions. Current data availability limits further disaggregation across issue areas, pointing to the need for better information.

Canada's recent national, provincial, and municipal sustainability strategies mostly focus on time horizons out to around 2020, but few of them so far have any systematic alignment with the SDGs. As each city, province, and federal actor updates its strategies moving forward, they will be able to set targets, suitably localized, to align with Canada's commitments under the SDGs. In the meantime, it will be crucial to establish baseline measures, as soon as possible, for tracking future progress.

This study yields procedural insights too. The process of pulling together disparate data sources into a systematic national and sub-national assessment highlights the value of a multi-dimensional societal scorecard that can be benchmarked against medium-term objectives. The extensive amount of work required to identify relevant targets, indicators, and data sources also draws attention to the need for policymakers in both the U.N. system and the Government of Canada to continue developing SDG databases and benchmarks that will more easily inform relevant policy debates and processes. Analysts would benefit from a one-stop-shop to assess progress across issues, geographies, and demographic groups. Citizens and researchers alike require straightforward data resources to assess who is being left behind, and which issues are lagging.

On a number of SDG issues, we are not able to assess status, either because the relevant target is not clearly

defined or because of gaps in the data. For example, the SDG targets on industry and infrastructure are not ideal for assessing performance in an advanced economy, nor are many of the targets on decent work and economic growth. Advanced economies like Canada might want to set their own targets in these realms. There are also important data gaps on issues of sustainable transport, water resource management, and lifelong learning.

This empirical assessment of Canada's domestic SDG status can inform forward-looking policy debates on how best to change trajectories. Future research will be able to present more refined assessments as underlying data sources keep improving and government actors establish domestic targets that provide greater clarity where formal SDG language is ambiguous. Researchers will also surely spot opportunities for better technical methods of benchmarking. In the meantime, this paper helps to translate the SDGs from U.N. framework to country-level diagnostic tool. In so doing, it aims to specify the people and issues that require faster progress. Amid Canada's many extraordinary achievements, the SDGs can help inform a broad societal effort to ensure no person or issue is left behind.

## ENDNOTES

1. OECD (2016a) also presents a multi-tier filtering logic for the SDG targets, ultimately focusing on 20 that are outcome-oriented, easy to quantify, and align with development cooperation priorities.
2. The official SDG framework distinguishes between outcome targets (numbered 1.1, 1.2, and so forth) and means of implementation targets (lettered 1.a, 1.b, and so forth), although a handful of numbered targets actually focus on means of implementation.
3. Exceptions to this process are listed in Appendix 1. For example, for targets under Goal 5 on gender equality, we use gender parity as a proxy for equality.
4. The 41 proxy targets include five Canadian national targets.
5. This indicator count is as of mid-2017 and does not include the large number of sub-indicators that could potentially be used to track progress across disaggregated population groups. Official UN processes will likely continue to update the indicator architecture over time.
6. Exceptions include, for example, national low-income status and maritime area protected, which were updated with information available as of August 2017.
7. Gaps are particularly noteworthy for the 10 assessable targets with 2020 deadlines. Canada has observations for seven of these.
8. We calculate proportional rates of progress for indicators relating to mortality or economic growth and percentage point (absolute) rates of progress for all other indicators. See McArthur and Rasmussen (2017) for details.
9. This follows the extrapolation methodology used in McArthur and Rasmussen, 2016. For four indicators, data are only available for one period: 1.3 on social protection, 12.3 on food waste, 15.5 on biodiversity and 16.6 on trust in public institutions.
10. In 1990, Canada had a reported maternal mortality ratio of 7 deaths per 100,000 live births, compared to the SDG standard of 70 deaths per 100,000 live births.
11. We use gender wage-gap instead of the official SDG indicator because the official indicator measures a process – whether legal frameworks are in place to promote non-discrimination – rather than an outcome.
12. It is unclear whether Canada's low rate of water withdrawal arises from abundant freshwater availability or low water use. We rank Canada as requiring a "breakthrough" due to its slow progress on improving water-use efficiency: on current trajectory, it will cover just 30 percent of the distance to the proxy target. However, its low withdrawal rate may already qualify it for being on-track.
13. Because the end target of "substantially increasing the number of research and development workers" is unclear, our proxy target is set as increase the number of researchers by 50%. Canada requires a breakthrough because it covers less than half the distance to this proxy target.
14. Target 11.1 includes three characteristics of access to housing: adequate, safe, and affordable. Our data only addresses affordability.
15. Targets 1.5, 11.5 and 13.1 include the same official indicators. To avoid repetition, we examine economic loss due to natural disasters.
16. The formal target is halve global food waste, a proportionate standard we apply directly to Canada.
17. Of the 25 global absolute targets assessed, at least some acceleration is required on 15.
18. Most indicators are reported as available in May 2017. Low-income indicators are updated with data released in August 2017.
19. For literacy, basic proficiency implies the ability to at least make low-level inferences and paraphrase. For numeracy, it implies the ability to complete two or more processes involving calculations with whole numbers and common decimals and interpreting simple tables and graphs. Note that we use adult PIAAC scores for sub-national education indicators, rather than the school-aged PISA scores

- as in the national assessment, because PIAAC allows for more extensive disaggregation analysis.
20. As a basic way to benchmark progress on greenhouse gas emissions, we apply the national target of reducing emissions to 30 percent of 2005 levels by 2030 to each province and territory.
  21. We define “eliminate” as an incidence rate of less than 1 per 100,000.
  22. In 2012, Canada had approximately 12 million males and 11.9 million females aged 16-65. From Table 5, 80 percent of males with minimum numeracy skills implies 2.4 million without; 74 percent of females with corresponding skills implies 3.1 million without. Note that these numbers are of a similar general magnitude, although not directly comparable, to the PISA-informed national calculations discussed earlier under Goal 4.
  23. The share of the population with food insecurity in Montreal is 10.7 percent (95 percent confidence interval of 8.7 - 12.7) and Quebec is 7.5 percent (6.8 - 8.2). In Toronto it is 9.5 percent (7.8 - 11.2) and Ontario is 7.7 percent (7.1 - 8.2).
  24. At the time of writing, we were unable to find household poverty rates disaggregated by Indigenous status.
  25. The measure of violence against woman is self-reported which differs from the police-reported metric used at the provincial level.
  26. This includes 11 percent of adults with either a pain, mobility, or flexibility disability; 3.9 percent with mental/psychological disabilities; 3.5 percent with dexterity disabilities; 3.2 percent with hearing disabilities; and 2.7 percent with seeing disabilities. The original national survey was conducted in 2012, and is in the process of being updated in 2017.

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# APPENDIX 1: CLASSIFICATION OF SDG OUTCOME TARGETS

## A. 37 targets quantified and measurable as written

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day
- 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
- 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable
- 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance
- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- 2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
- 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
- 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
- 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
- 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
- 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
- 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
- 5.1 End all forms of discrimination against all women and girls everywhere

**A. 37 targets quantified and measurable as written (cont.)**

- 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
- 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences
- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.3 By 2030, double the global rate of improvement in energy efficiency
- 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
- 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
- 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
- 15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
- 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
- 16.9 By 2030, provide legal identity for all, including birth registration

## **B. 41 targets assessable through proxy benchmarks, including national targets**

- 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
- 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
- 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed
- 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
- 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
- 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
- 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
- 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
- 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead
- 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training
- 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
- 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all
- 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending



**B. 41 targets assessable through proxy benchmarks, including national targets (cont.)**

- 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard
- 10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
- 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
- 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 13.2 Integrate climate change measures into national policies, strategies and planning
- 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels
- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- 16.1 Significantly reduce all forms of violence and related death rates everywhere
- 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
- 16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime
- 16.5 Substantially reduce corruption and bribery in all their forms
- 16.6 Develop effective, accountable and transparent institutions at all levels
- 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels
- 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

**C. 29 targets not assessed: either not outcome-focused at country level or proxy cannot be established**

- 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
- 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- 9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries
- 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
- 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status
- 10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations
- 10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions
- 10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
- 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

**C. 29 targets not assessed: either not outcome-focused at country level or proxy cannot be established (cont.)**

- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
- 14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation
- 14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
- 15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
- 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
- 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
- 16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

## APPENDIX 2: TRAJECTORY ASSESSMENT FOR CANADA ON DOMESTIC SDG TARGETS

		Initial year		Most recent year		2030					
SDG target (simplified language)		Indicator	Value	Year	Value	Year	Current trajectory	Target	Implied share of distance to target covered	Category	Notes
1.1	End extreme poverty	Poverty headcount ratio at \$1.90 a day (2011 PPP)			0%	2015		0%	100%	On track	
1.2	Reduce national poverty by 50%	Low income cut-offs after tax, 1992 base	10.8%	2005	9.2%	2015	6.8%	4.6%	52%	Acceleration needed	
		Low income share - market basket measure, 2011 base	12.3%	2005	12.1%	2015	11.8%	6.1%	5%	Breakthrough needed	
1.3	Implement social protection for all	Proportion of poor population covered by social protection floors/systems			100%	2016		100%		On track	
1.5	Build resiliency of poor to climate-events	Mortality rate from disasters, per 100,000	0.003	2006	0.000	2016	0	0	100%	On track	Proxy target
2.1	End hunger/food insecurity	Moderate + Severe food insecurity	7.1%	2008	7.8%	2012	11.0%	0%	-ve	Moving backwards	
2.2	End malnutrition	Children overweight, aged 2-4 (%)	38.4%	2000	42.3%	2015	46.2%	0%	-ve	Moving backwards	
2.4	Ensure sustainable food production systems	Nutrient balance - nitrogen, kg/ha (positive indicates risk of polluting, negative indicates declining soil fertility)	23.6	2004	29.8	2014	39.7	0	-ve	Moving backwards	Proxy target
3.1	Maternal mortality < 70 per 100,000 births	Maternal mortality ratio per 100,000 live births	9	2005	7	2015	5	70	100%	On track	
3.2	Child and newborn mortality (< 25 & < 12 per 1,000 births)	Neonatal mortality rate per 1,000 live births	4	2005	3	2015	2	12	100%	On track	
3.3	End AIDS/TB/Malaria epidemics	TB incidence per 100,000	5.7	2004	5.2	2014	4.5	1.0	17%	Breakthrough needed	Interpret "end epidemic" as incidence of 1 per 100,000
3.4	Reduce premature mortality from non-communicable diseases (NCDs) by 1/3	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease (aged 30-70, per 100,000)	297	2000	224	2015	169	148	72%	Acceleration needed	
		Cancer, malignant neoplasms, age-standardized mortality rate per 100,000	238	2003	206	2013	161	136	64%	Acceleration needed	
		Major cardiovascular disease, age-standardized mortality rate per 100,000	275	2003	184	2013	93	121	100%	On track	
		Suicide mortality rate per 100,000	12.1	2000	11.4	2012	10.5	7.5	23%	Breakthrough needed	
3.5	Strengthen prevention/treatment of substance abuse	Alcohol per capita consumption within year (liters of pure alcohol)	9.8	2005	10.3	2015	11.1	5.2	-ve	Moving backwards	Proxy target
3.6	Halve traffic deaths by 2020	Death rate due to road injuries per 100,000	9.1	2003	6.0	2013	4.5	3.0 (2020)	51%	Acceleration needed	
3.7	Universal access to sexual & reproductive services	Women with family planning needs satisfied	91.8%	2000	95.2%	2015	98.6%	100%	70%	Acceleration needed	
3.8	Universal health coverage (UHC)	Coverage of 7 UHC tracer interventions (%)	84.7%	2000	91.5%	2015	98.4%	100%	81%	Acceleration needed	
3.9	Reduce deaths due to pollution & chemicals	Mortality rate from household/ambient air pollution (per 100,000)	19.7	2000	12.9	2015	8.5	6.5	69%	Acceleration needed	Proxy target
4.1	Ensure all complete primary/secondary education	Upper-secondary graduation rate	80%	2005	89%	2013	100%	100%	100%	On track	
4.2	Universal access to early childhood education	Adjusted net enrolment rate, one year before official primary entry age	86%	2000	97%	2013	100%	100%	100%	On track	
4.5	Eliminate gender disparities in education	Gender differences in mean reading PISA scores	-32	2006	-26	2015	-16	0	38%	Breakthrough needed	Boys trail
		Gender differences in mean math PISA scores	14	2006	9	2015	1	0	93%	On track	Girls trail. 2030 value within measurement error (Canada nat. avg. 527 in 2015)

## Appendix 2 (cont.)

		Initial year		Most recent year		2030					
SDG target (simplified language)		Indicator	Value	Year	Value	Year	Current trajectory	Target	Implied share of distance to target covered	Category	Notes
4.6	Achieve literacy and numeracy	Literacy: 2+ on PISA in 15-year olds	89.7%	2009	89.3%	2015	88.3%	100%	-ve	Moving backwards	
		Numeracy: 2+ on PISA in 15-year olds	89.2%	2006	85.6%	2015	79.6%	100%	-ve	Moving backwards	
5.1	End discrimination against all women/girls	Gender wage gap in full-time employees	21.3	2005	18.6	2015	14.7	0	21%	Breakthrough needed	
5.2	Eliminate violence against women/girls	Women experiencing intimate partner violence	16.9%	2000	16.4%	2015	16.0%	0	3%	Breakthrough needed	
		Police-reported victims of violent crime, females per 100,000 population	1155	2008	1207	2011	1536	0	-ve	Moving backwards	
5.3	Eliminate harmful practices such as child, early and forced marriage and female genital mutilation	Share of 15-17 year old females who are married	0.041%	2005	0.036%	2015	0.027%	0	21%	Breakthrough needed	
5.4	Recognize and value unpaid care and domestic work	Disparity in hours spent on unpaid domestic work by gender (female - male)	5.8	2005	5.8	2010	5.8	0	0%	Breakthrough needed	Proxy target
5.5	Ensure women's full participation in leadership	% seats held by women in national parliaments	21%	2006	26%	2016	33%	50%	31%	Breakthrough needed	Proxy target
6.1	Universal access to safe drinking water	Access to improved water	99.4%	2000	98.4%	2015	97.4%	100%	-ve	Moving backwards	
6.2	Access to adequate and equitable sanitation for all	Access to sanitation facilities	99.8%	2005	99.8%	2015	99.9%	100%	17%	Breakthrough needed	
6.3	Improve water quality and halve untreated wastewater	Waste water treatment (%)	87%	2004	84%	2009	72%	92%	-ve	Moving backwards	
		% freshwater sites rated good or excellent	34%	2004	40%	2011	56%	70%	54%	Acceleration needed	Proxy target
6.4	Increase water-use efficiency	Annual freshwater withdrawals, total (% of internal resources)	1.45%	2007	1.36%	2014	1.16%	0.68%	30%	Breakthrough needed	Proxy target
7.1	Universal access to modern energy services	Access to electricity	100%	2000	100%	2012	100%	100%	100%	On track	
7.2	Increase share of renewable energy	Renewable electricity consumption (% of total final consumption)	21.2%	2007	20.6%	2012	18.4%	60%	-ve	Moving backwards	Proxy target
		Electricity generated from renewable and non-emitting sources	75%	2005	80%	2014	89%	90%	89%	Acceleration needed	Canadian national target
7.3	Double global rate of improvement in energy efficiency	Energy intensity level of primary energy (megajoules per USD constant 2011 PPP GDP)	8.2	2007	7.3	2012	4.1	0.9	50%	Breakthrough needed	
8.4	Improve resource efficiency in consumption & production; decouple economic growth from environmental degradation	Domestic material consumption (kg) per unit of GDP	0.70	2005	0.62	2010	0.38	0.31	77%	Acceleration needed	Proxy target
8.6	Reduce share of youth not in employment, education, or training by 2020	Youth population not in education or employed (15-29)	12.7%	2003-05 avg.	13.0%	2013-15 avg.	13.2%	6.5% (2020)	0%	Breakthrough needed	Proxy target. Remains stagnant amid year-to-year volatility
8.8	Protect labor rights, promote safe working environments	All-cause DALY rate attributable to occupational risks per 100,000	499	2000	473	2015	447	236	11%	Breakthrough needed	Proxy target
8.10	Strengthen capacity of domestic financial institutions to expand access to banking for all	Share of adults with account at bank, financial institution, or mobile money	97.7%	2011	99.6%	2014	100%	100%	100%	On track	Proxy target
9.4	Upgrade infrastructure & retrofit industry to make sustainable	Emissions of CO2 per unit of GDP PPP	0.42	2005	0.37	2014	0.30	0.19	39%	Breakthrough needed	Proxy/National target. Assume: 1) GDP growth trajectory of 2005-2014 continues to 2030; 2) Canada reduces CO2 emissions by 30% compared to 2005

## Appendix 2 (cont.)

		Initial year		Most recent year		2030			Category	Notes
SDG target (simplified language)	Indicator	Value	Year	Value	Year	Current trajectory	Target	Implied share of distance to target covered		
9.5 Enhance scientific research & increase no. of R&D workers & public-private R&D spending	R&D expenditures as share of GDP	2.0%	2004	1.6%	2014	1.0%	2.4%	-ve	Moving backwards	Proxy target set for 50% increase in R&D
	Researchers (in full-time equivalent) per million inhabitants	3900	2003	4519	2013	5571	6779	47%	Breakthrough needed	Proxy target set for 50% more researchers
10.1 Achieve and sustain income growth of bottom 40% higher than nat. avg.	Palma Ratio - share of income received by 10% with the highest disposable income divided by share received by the 40% with the lowest	1.19	2006	1.21	2013	1.26		-ve	Moving backwards	
	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population			2.14	2010					Average annual growth rate from 2004-2010
	Growth rates of household expenditure or income per capita			1.93	2010					Average annual growth rate from 2004-2010
10.4 Progressively achieve greater equality	Gini coefficient, adjusted after-tax income	0.317	2005	0.314	2015	0.310	0.299	30%	Breakthrough needed	Proxy target
11.1 Access to adequate, safe & affordable housing for all	% Households spending 30%+ of income on shelter	24.8%	2006	25.2%	2011	26.7%	0	-ve	Moving backwards	
11.5 Decrease deaths & economic loss from disasters	Estimated total cost from natural disasters as share of GDP LCU	0.02%	2003-05 avg.	0.10%	2013-15 avg.	0.21%	0.05%	-ve	Moving backwards	Proxy target
11.6 Reduce adverse per capita environmental impact of cities	PM2.5 annual average concentration	6.5	2004	7.7	2014	9.6	<10.0	100%	On track	Proxy target. Maintain levels below Canada's national standard for safe levels
11.7 Universal access to safe, inclusive green and public spaces	% had park or green space < 10 minutes from home	86%	2011	85%	2013	77%	100%	-ve	Moving backwards	Proxy target
12.3 Halve per capita food waste	Food waste - difference between food produced and consumed			40%	2010		20%		Breakthrough needed	No evidence identified of rapid decline
12.5 Reduce waste generation through prevention, reduction, recycling	Solid waste not diverted rate (all sources)	78%	2002	75%	2012	68%	37%	17%	Breakthrough needed	Proxy target
	Solid waste per capita (kg)	790	2004	706	2014	572	353	38%	Breakthrough needed	Proxy target
13.2 Integrate climate change measures into nat. policy	GHG emissions total (Mt)	738	2005	722	2015	676	523	23%	Breakthrough needed	Canadian national target
14.1 Prevent and reduce marine pollution by 2025	Volume of spills detected (litres)	8110	2010	4453	2014	0	0 (2025)	100%	On track	Extrapolates two data points in highly variable annual data
	Number of spills detected	109	2010	214	2014	503	0 (2025)	-ve	Moving backwards	Extrapolates two data points in highly variable annual data
14.4 Regulate harvesting & end overfishing by 2020	% Major fish stocks harvested above approved levels	10.3%	2011	4.4%	2015	0%	0% (2020)	100%	On track	
14.5 Conserve at least 10% of coastal and marine areas by 2020	Share of marine area protected	0.9%	2015	3.4%	2017	7.2%	10% (2020)	69%	Acceleration needed	Trajectory calculated using 2015-2017 rate to capture recent policy commitments. 2015 used as baseline for share of distance covered.
15.1 Ensure conservation of terrestrial and inland ecosystems by 2020	Share of terrestrial area protected	8.4%	2005	10.6%	2015	11.7%	17% (2020)	17%	Breakthrough needed	Canadian national target
15.2 Sustainably manage forests by 2020	Volume wood harvested relative to sustainable wood supply	83%	2004	65%	2014	54%	<100% (2020)	100%	On track	Canadian national target
15.4 Ensure conservation of mountain ecosystems	Coverage by protected areas of important sites for mountain biodiversity	12%	2005	12%	2016	12%	100%	0%	Breakthrough needed	Proxy target

## Appendix 2 (cont.)

		Initial year		Most recent year		2030						
SDG target (simplified language)		Indicator		Value	Year	Value	Year	Current trajectory	Target	Implied share of distance to target covered	Category	Notes
15.5	Reduce degradation of national habitats, halt loss of biodiversity, protect threatened species by 2020	Population trends of species at risk showing trends of recovery				35%	2016		100% (2020)		Breakthrough needed	Canadian national target. More species doing worse than better compared to 10 yrs. prior
16.1	Reduce all forms of violence and related deaths	Rate of homicide per 100,000 population		2.1	2005	1.7	2015	1.1	0.8	68%	Acceleration needed	Proxy target
16.2	End abuse, exploitation, trafficking, and violence against children	Rate of sexual violations against children per 100,000 population (police reported)		10.8	2010	12.6	2015	18.1	0	-ve	Moving backwards	
16.3	Promote rule of law, ensure access to justice for all	Unsentenced detainees as share of overall prison population		29%	2005	35%	2014	46%	18%	-ve	Moving backwards	Proxy target
16.5	Reduce corruption & bribery	Control of corruption		1.86	2005	1.85	2015	1.84	2.18	0%	Breakthrough needed	Proxy target. Remains stagnant amid year-to-year variance
16.6	Develop effective, accountable, and transparent institutions at all levels	Confidence in institutions - Justice system and courts (great deal or some)		57%	2003	57%	2013	57%	79%	0%	Breakthrough needed	Proxy target. Slight difference in GSS survey question: 2003 asks "a great deal" or "quite a lot" of confidence in "justice system"; 2013 asks "a great deal or some confidence" in "justice system and courts"
16.9	Provide legal identity for all	Proportion of births registered with a civil authority				100%	2015	100%	100%	100%	On track	
16.10	Ensure public access to information & protect fundamental freedoms	Number of cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in last 12 months		0	2010	0	2015	0	0	100%	On track	Proxy target
TOTAL INDICATORS:											On track	17
											Acceleration needed	12
											Breakthrough needed	26
											Moving backwards	18





The views expressed in this working paper do not necessarily reflect the official position of Brookings, its board or the advisory council members.



# BROOKINGS

1775 Massachusetts Avenue, NW

Washington, DC 20036

202-797-6000

[www.brookings.edu/global](http://www.brookings.edu/global)

