

# Introduction to the Sustainable Development Goals (SDGs)



# INTRODUCTION TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

JOCELYN BAKER



*Introduction to the Sustainable Development Goals (SDGs) by Jocelyn Baker is licensed under a Creative Commons Attribution 4.0 International License, except where otherwise noted.*

# CONTENTS

Introduction	1
Course Outline	2

## Week 1

Introduction of Sustainability, Sustainable Development, and the Sustainable Development Goals (SDGs)	7
---	---

## Week 2

Introduction to the SDGs and the 2030 Agenda	15
--	----

## Week 3

SDG #1 - No Poverty	23
SDG #2 – Zero Hunger	29
SDG #3 - Good Health and Well-being	33
Reflection, Comprehension, Discussion, Readings	39

## Week 4

SDG #5 - Gender Equality	43
SDG #10 - Reduced Inequalities	48

Reflection, Comprehension, Discussion	52
Poverty and Hunger Assignment	54

## Week 5

SDG #6 - Clean Water and Sanitation	59
SDG #7 - Affordable and Clean Energy	63
Reflection, Comprehension, Discussion	67

## Week 6

SDG #4 - Quality Education	71
SDG #8 - Decent Work and Economic Growth	75
Reflection, Comprehension, Discussion	79

## Week 7

SDG #9 - Industry, Innovation, and Infrastructure	83
SDG #11 - Sustainable Cities and Communities	89
SDG #12 - Responsible Consumption and Production	94
Reflection, Comprehension, Discussion, Videos	99

## Week 8

SDG #13 - Climate Action	105
SDG #14 - Life Below Water	110
SDG #15 - Life on Land	114
Reflection, Comprehension, Discussion	120

Carbon Footprint Assignment	122
-----------------------------	-----

## Week 9

SDG #16 - Peace, Justice, and Strong Institutions	127
SDG #17 - Partnerships for Goals	133
Reflection, Comprehension, Discussion	136

## Week 10

Implementing the SDGs	141
-----------------------	-----

## Week 11

Monitoring, Evaluation, Reporting	147
-----------------------------------	-----

## Week 12

Beyond Sustainability to Radical Transformation	155
---	-----

## Appendix

Alternative Navigation	161
------------------------	-----





---

## Introduction

The purpose of this course is to introduce and provide students a foundational understanding of the key concepts of sustainable development and sustainability. This course will introduce the 2030 Agenda and the sustainable development goals (SDGs), their history, development, purpose, and implementation. Students will learn about each individual SDG, the rationale and examples of actionable solutions that can be implemented at the individual, community, national, and international level. Students will be given the opportunity to harness the transformational impacts of the SDGs by participating in a variety of learning experiences and exchanges. Collaborating with an active student base, representing a diversity of geographies and perspectives, students will engage with a global SDG community of practice and explore ways to increase social impact and environmental justice.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=4#oembed-1>*

In this 34-minute video: Urgent Solutions for Urgent Times, the United Nations tells the story of the world as it is, as it was, and as it could be. Marking five years since the adoption of the Sustainable Development Goals, this thought-provoking short film focuses on the solutions and action we need to tackle the SDGs including poverty, inequality, injustice, and climate change.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=4#oembed-2>*

---

This project is made possible with funding by the Government of Ontario and through eCampusOntario's support of the Virtual Learning Strategy (VLS) and Central Virtual Learning Platform (CVLP). To learn more about VLS and CVLP visit: <https://vls.ecampusontario.ca>

# COURSE OUTLINE

---

## Course Learning Objectives

To enhance students understanding of the SDGs to create a better- informed citizenry, which will lead to a more sustainable action by all and for all.

Students can expect to learn:

- The difference between sustainability, sustainable development, and the sustainable development goals, why and how they came to be, and their current applications;
- The role of the United Nations, the 2030 Agenda, and other international agreements (e.g., the Paris agreement and post-2020 Global Biodiversity Framework);
- An overview of the 17 SDGs and their targets, and why they matter;
- Pathways for solutions and how students can become active agents of change;
- How governments, businesses, and civil societies can also be active participants in the implementation of the SDGs;
- How countries make decisions on their selection of SDGs and targets they want to focus on and how they establish indicators of progress;
- How the SDGs are monitored, tracked, and reported;
- The role of thinking beyond sustainability to the transformations necessary to meet and exceed the 2030 Agenda.

## Pedagogy

The course will be delivered through eLearning requiring a combination of asynchronous and synchronous student participation. Students will engage with the course material at the individual and SDG community of practitioner level. Learning objectives will be achieved through a combination of lectures, videos, online discussion forums, interactive exercises, comprehension questions, quizzes, assignments, and weekly readings.

## Required Course Texts

There is no required textbook for this course. Readings from journal articles, book chapters, and internet sources will be assigned on a weekly basis. The course will also utilize materials from the United Nations (UN) Sustainable Development Solutions Network (SDSN), and the SDG Academy.

## Weekly Schedule



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=23#oembed-1>*

### **Week 1 – Sustainability, sustainable development, and the sustainable development goals**

- History of sustainability, and what it means. The United Nations, sustainable development, and the path to the SDGs.

### **Week 2 – What are the SDGs?**

- SDGs overview, goals, and targets

### **Week 3 – #1 Poverty, #2 Hunger, #3 Good Health and Well-being**

- Eradication of poverty and hunger to help all societies achieve a higher quality of life

### **Week 4 – #5 Gender Equality, #10 Reduced Inequalities**

- Reduce inequalities worldwide

### **Week 5 – #6 Clean Water and Sanitation, #7 Affordable and Clean Energy**

- Universal access to basic essential services including clean drinking water, hygiene and sanitation, and safe renewable energy

### **Week 6 – #4 Quality Education, #8 Decent Work and Economic Growth**

- Universal access to inclusive education and decent work to support fair and socially just economic opportunities

**Week 7 – #9 Industry, Innovation, and Infrastructure; #11 Sustainable Cities and Communities; #12 Responsible Consumption and Production**

- Innovative solutions and resilient infrastructure to enable societies to produce and consume in a more sustainable way

**Week 8 – #13 Climate Action, #14 Life Below Water, #15 Life on Land**

- The protection of human and non-human life by combating climate change and safeguarding oceans and terrestrial habitats including inland surface water

**Week 9 – #16 Peace, Justice, and Strong Institutions; #17 Partnerships for Goals**

- Collaboration between all society partners and stakeholders to create a world of peace and justice for all

**Week 10 – Implementing the SDGs**

- Solutions and best practices at the individual, local, national, and international level

**Week 11 – Monitoring, Evaluation, Reporting**

- Measuring SDG success through indicators, monitoring, evaluation, and reporting

**Week 12 – Beyond Sustainability to Radical Transformation**

- The course will close with an introduction to taking the SDGs to the next level – changing world-views and perspective through radical transformation and thinking beyond sustainability

# WEEK 1



# INTRODUCTION OF SUSTAINABILITY, SUSTAINABLE DEVELOPMENT, AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

---

## What is Sustainability?

Sustainability is a well-known and frequently used term of the 21st century. How often do you see or hear the word? Have you ever stopped to really think about what exactly does sustainability mean and where did the term originate from?

A quick Google search for ‘what is sustainability’ yields over 1.9 billion results. Sustainability is widely defined as ‘the ability to be maintained at a certain rate or level’. Embedded in most definitions of sustainability are concerns for the environment, social equity, and economic prosperity<sup>(1)</sup>. Most definitions look to avoid the depletion of natural resources to maintain an ecological balance. Sustainability in the context of the environment looks at the activities required to balance social, economic, and environmental needs to maintain ecosystem services at a suitable level. It is generally accepted, the goals of sustainability are related to the need for the conservation of natural capital and ecosystem services, with a shift to a less resource-intensive future<sup>1</sup>.

While to most, the concept of sustainability is a relatively new idea, sustainability has a long history of use and meaning. The practice of sustainability has been utilized by various cultures for thousands of years, with the term sustainability first used in the 1700’s. Sustainability comes from the practice of *nachhaltigkeit*, translated to mean ‘sustained yield’ in English, a term coined in 1713 by German foresters<sup>2</sup>. Sustained yield refers to the practice of taking only enough trees to allow forests to naturally regenerate well into the future. The concept of sustained yield broadened to include the conservation of plants, animals, and other food necessities, eventually moving beyond the forestry discourse but still mainly confined to research and science.

It was not until the 1970’s that the concept of sustainability became more widely used. In January 1972, the journal the Ecologist published the Blueprint for Survival, a series of science papers calling for better management of natural resources and modification of consumptive lifestyles of western civilizations. That same year, a global think-tank published the report Limits to Growth, where a definition was given to the

---

1. Baker, J., Dupont, D., & Vasseur, L. (2021). Exploring Canadian Ramsar Sites Ecosystem Governance and Sustainability. *Wetlands*, 41(1), 1-11.

2. Grober, U. (2007). Deep roots-a conceptual history of sustainable development (Nachhaltigkeit).

term sustainable. For the first time in the literature, sustainable was defined to mean without sudden and uncontrolled collapse and capable of satisfying the basic material requirements of all its people (2). Then later that year the United Nations (UN) world conference on human environment was held in Stockholm, Sweden to address the global environmental crisis. The term sustainable development was introduced into the discourse. As evidenced at the UN Conference, the environment was being neglected and not in balance with economic development.

Through the 1980's, the concept of sustainability became more mainstream. In 1987, former Norwegian Prime Minister Gro Harlem Brundtland, as chairwoman of what was then the World Commission on Environment and Development (WCED) released a Report, widely known as the Brundtland's Commission, *Our Common Future*. The report emphasized the importance that development should consider social, environmental, and economic aspects to ensure the sustainability of all human societies. Her main concern was that development had to meet "the needs of the present without compromising the ability of future generations to meet their own needs"<sup>3</sup>. This concept went on to become the most widely used definition of sustainability although in the context of sustainable development.

Although sustainability and sustainable development both consider the environment, society, and economies with a future timeframe, the two terms have very different meanings and should not be used interchangeably. Sustainability looks at the activities required to protect the environment as our base for survival while balancing social, cultural, and economic needs. It is generally accepted that the goals of sustainability are related to the need to conserve our natural world with a shift away from the resource-intensive current way of living<sup>1</sup>.

## What is Sustainable Development?

We learned that sustainability is the process of living within the limits of available physical, natural, and social resources in ways that allow all living things, not only humans to thrive well into the future.

Sustainable development is a process that creates growth and progress through the addition of physical, economic, environmental, and social components to improve quality of life without damaging the resources of the environment. Simply put, sustainable development is a way for people to use resources without the resources running out<sup>3</sup>.

As previously discussed, the concept of sustainable development arrived in 1987 by the Brundtland Commission "Our Common Future", the document that defined sustainable development as an approach designed to meet the needs of the present [generation] without compromising the ability of future generations to meet their own needs<sup>3</sup>. This definition incorporated the understanding that economic growth is required to

---

3. United Nations. (2021). 1987 Report of the World Commission on Environment and Development: Our Common Future (page 41).



provide societies with the necessities of life such as clean water and food, while acknowledging the dilemma of environmental degradation that often coincides with economic development.

In 1992 the UN conference on the environment and development, informally known as the Earth Summit, or the Rio Conference took place in Rio de Janeiro, Brazil. The conference promoted the idea of ecological sustainable development and in order to achieve it you had to consider social development (communities). From the mid 1990's, different strategies were developed to try to work out what sustainability means in practice, how do we get that middle area where the environment, economics, and social development are achieved at the same time. Governments alone can not achieve sustainable development. Governments can set regulations and determine infrastructure needs but they don't tend to have long-term goals in mind, they tend to focus on election cycles which are typically about 4 to 8 years. The market economies (goods and services) timeframe is usually only about 4 months to a year. Sustainability is about long-term solutions. The market economies and governments can not effectively do this. If the community is not driving the will for a better more sustainable future, sustainable development will be difficult to achieve. As we previously discussed, the Brundtland Commission's definition has become a widely used definition for sustainable development and sustainability and has therefore come with many challenges, including confusion over meaning, interpretations, and misinformation.

Recognizing some of the key challenges with the implementation of sustainable development and the quest for achieving a balance between the environment and economics, the role of people and societies were formally added into the equation for sustainable development in 2005 at the UN World Summit on Social Development. The three pillars of sustainability became widely known and currently used today:

(Click on the “?” icons below for more information):



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=28#h5p-1>

This updated model for sustainable development recognizes that in order to meet the needs of current and future generations you have to consider the three pillars or the 3P's (people, planet, prosperity), and they **all** need to be working together at the same. The key being all at the same time, or simultaneously.

Integrating the short-term and long-term needs with a focus on future generations, will require social development, environmental protection, and economic prosperity working in unison. Being able to incorporate sustainability into your day to day activities, this is what will create change.

## The United Nations and the Path to the Sustainable

## Development Goals (SDGs)

### History of the UN

#### Direct Source

The United Nations is an international organization founded in 1945 after the Second World War by 51 countries committed to maintaining international peace and security, developing friendly relations among nations, and promoting social progress, better living standards and human rights.

Due to its unique international character, and the powers vested in its founding Charter, the Organization can take action on a wide range of issues and provide a forum for its 193 Member States to express their views, through the General Assembly, the Security Council, the Economic and Social Council and other bodies and committees.

The work of the United Nations reaches every corner of the globe. Although best known for peacekeeping, peace-building, conflict prevention and humanitarian assistance, there are many other ways the United Nations and its System (specialized agencies, funds, and programmes) affect our lives and make the world a better place. The Organization works on a broad range of fundamental issues, from sustainable development, environment and refugees protection, disaster relief, counter terrorism, disarmament and non-proliferation, to promoting democracy, human rights, gender equality and the advancement of women, governance, economic and social development and international health, clearing landmines, expanding food production, and more, in order to achieve its goals and coordinate efforts for a safer world for this and future generations.

The UN has 4 main purposes:

- To keep peace throughout the world;
- To develop friendly relations among nations;
- To help nations work together to improve the lives of poor people, to conquer hunger, disease, and illiteracy, and to encourage respect for each other's rights and freedoms;
- To be a centre for harmonizing the actions of nations to achieve these goals

### Pathway to the Sustainable Development Goals (SDGs)

In 2015, the 2030 Agenda for Sustainable Development was adopted by 193 United Nations (UN) Member States. The 2030 Agenda is centered on the 17 SDGs which are underpinned by the Millennium Development Goals (MDGs). The MDGs were developed in 2000 to end poverty and hunger, fight inequality and injustice, advance climate change action, create sustainable consumption and production, and promote peace and prosperity for all. One major change between the MDGs versus the SDGs is that for the SDGs, all countries are now involved. The MDGs only applied to developing countries. Another difference is that each country has set their own goals and priorities for achieving the SDGs. International collaboration to advance the

SDG Agenda remains a critical component. The 17 SD goals, with their 169 targets, and over 230 indicators work together at the local and international level to help promote a shared global framework to achieve a fair, equitable, and sustainable future for all. Currently, all countries and international organizations are working on the achievement of the UN 2030 Agenda serving as the basis for better economic development that is environmentally low impact, socially just, and economically efficient and fair.

Pathway to the SDGs

## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=28#h5p-2>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=28#h5p-3>*

## Recommended Reading

- Sustainable Development Solutions Network. (2021). Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals.

## Additional Readings

- Brundtland G, Khalid M. 1987. UN Brundtland commission report. *Our Common Future*. 41-59.
- Kidd C. V. 1992. The evolution of sustainability. *Journal of Agricultural and Environmental Ethics*, 5(1), 1-26.

## WEEK 2



# INTRODUCTION TO THE SDGS AND THE 2030 AGENDA

---

## Week 1 Review

In the previous lecture we learned about sustainability, sustainable development, and the sustainable development goals and how currently, all countries are working on the achievement of the UN 2030 Agenda, serving as the basis for better economic development that is environmentally low impact, socially just, and economically efficient and fair.

In this 11-minute video made available from the SDG Academy, Jeffrey Sachs (Director of the Sustainable Development Solutions Network), provides an overview of sustainable development.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=44#oembed-1>*

## Week 1 Review Continued

In the previous lecture we also learned about the pathway to the Sustainable Development Goals. As you will recall in 2015, the 2030 Agenda for Sustainable Development was adopted by 193 United Nations (UN) Member States. The 2030 Agenda is centred on the 17 SDGs which are underpinned by the Millennium Development Goals (MDGs). You will recall the 17 SD goals, with their 169 targets, and over 230 indicators work together at the local and international level to help promote a shared global framework to achieve a fair, equitable, and sustainable future for all. We also learned that each country has set their own goals and priorities for achieving the SDGs, with international collaboration to advance the SDGs as a critical component.

In this 11-minute video made available from the SDG Academy, Jeffrey Sachs provides an overview and history of the SDGs.



— One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=44#oembed-2>

## Week 2

We learned that currently 193 countries (known as Member States) are signatories to the United Nations. This means almost every country on the planet has adopted the Sustainable Development Goals (SDGs) as the organizing framework for global cooperation on sustainable development. It also means that 193 countries have agreed to work together for the period 2015 (when the SDGs were adopted) until at least to 2030. This level of global cooperation is unprecedented. Think about your own experiences and how hard it can be to get people to agree on something. Now imagine a whole country, and multiple that by 193 countries.

So why have some many countries committed to the SDGs and the 2030 Agenda?

To start, all Member States know that great things that can be achieved when people pool their resources, including human (intellectual capital – think innovation and modern technology know how) and financial (think investments into research and discovery).

All these countries also came together out of profound worry about the world's current and future environmental, economic, and societal state. All 193 countries agreed, the path is not sustainable, and the choices of the next 8 to 10 years are going to determine the quality of life of people for the next 100 to 200 years.

Collectively, it is understood that we have significant environmental threats, such as global warming and the loss of biodiversity. We have widening inequalities between the rich and the poor. Therefore, the UN Member States adopted the Sustainable Development Goals precisely to help reset the direction of the world economy, from one of widening inequalities and social exclusion and great environmental threats to a trajectory of sustainable development. Meaning a path for the world in which prosperity is shared, in which societies are inclusive, and in which the environment is kept safe because we have changed the ways that our industries and technologies are impinging on the physical earth processes.<sup>1</sup>

The Sustainable Development Goals that were adopted on September 25th, 2015, span a remarkable range of aspirations. View the slide show below for more information.

---

1. SDG Academy. (2021). How to achieve the SDGs course. Adapted from module one, chapter one.





*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=44#h5p-4>

As you recall, the Sustainable Development Goals are part of an overall agenda, a universal agenda called Transforming the World: the 2030 Agenda for Sustainable Development. As mentioned, it has a 15 year forward framework with the following statement of purpose.

“This agenda is a plan of action for people, planet and prosperity. People, planet, and prosperity, social inclusion planet meaning environmental sustainability and prosperity meaning a shared, economic benefit across the world. Agenda 2030 also seeks to strengthen universal peace in larger freedom. Eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. All countries and all stakeholders acting in collaborative partnership will implement this plan”.<sup>2</sup>

Bold and transformative steps are urgently needed to shift the world onto a sustainable and resilient path. The pledge is that no one will be left behind. Bold statements, bold ambitions. And as the title of Agenda 2030 says, requiring transforming the world. The agenda does not just call for change, it calls for deep and radical change all over the world.<sup>1</sup>

The remainder of this course will focus on the components of the 17 specific goals, including the 169 specific targets each goal has. And because you cannot effectively manage what you do not measure, there are also 230 indicators for the 17 goals.

The SDGS are complex. That is why it involves all parts of government, business, and civil society around the world. And it involves all of us, because successfully implementing the SDGs will have a profound positive effect for all human and non-human well-being.

At the core of the 2030 agenda is improving the quality of life and well-being for today’s generation and for all the generations to come.

In this 11-minute video made available from the SDG Academy, Jeffrey Sachs helps us get to know the SDGs.



2. United Nations. (2021). Transforming our world: the 2030 Agenda for Sustainable Development.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=44#oembed-3>*

Over the next weeks we will look at all the 17 SDGs individually to get a deeper undertaking of the issues, and solutions.

## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=44#h5p-6>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=44#h5p-5>*

## Discussion Question

- From the 17 SDGs, do you think anything is missing, if so, what? For example, do you think there should be more than 17 SDGs? What one(s) are missing?

## Recommended Reading

- Transforming our World: the 2030 Agenda for Sustainable Development.



# WEEK 3

## Introduction to the Individual Sustainable Development Goals (SDGs)

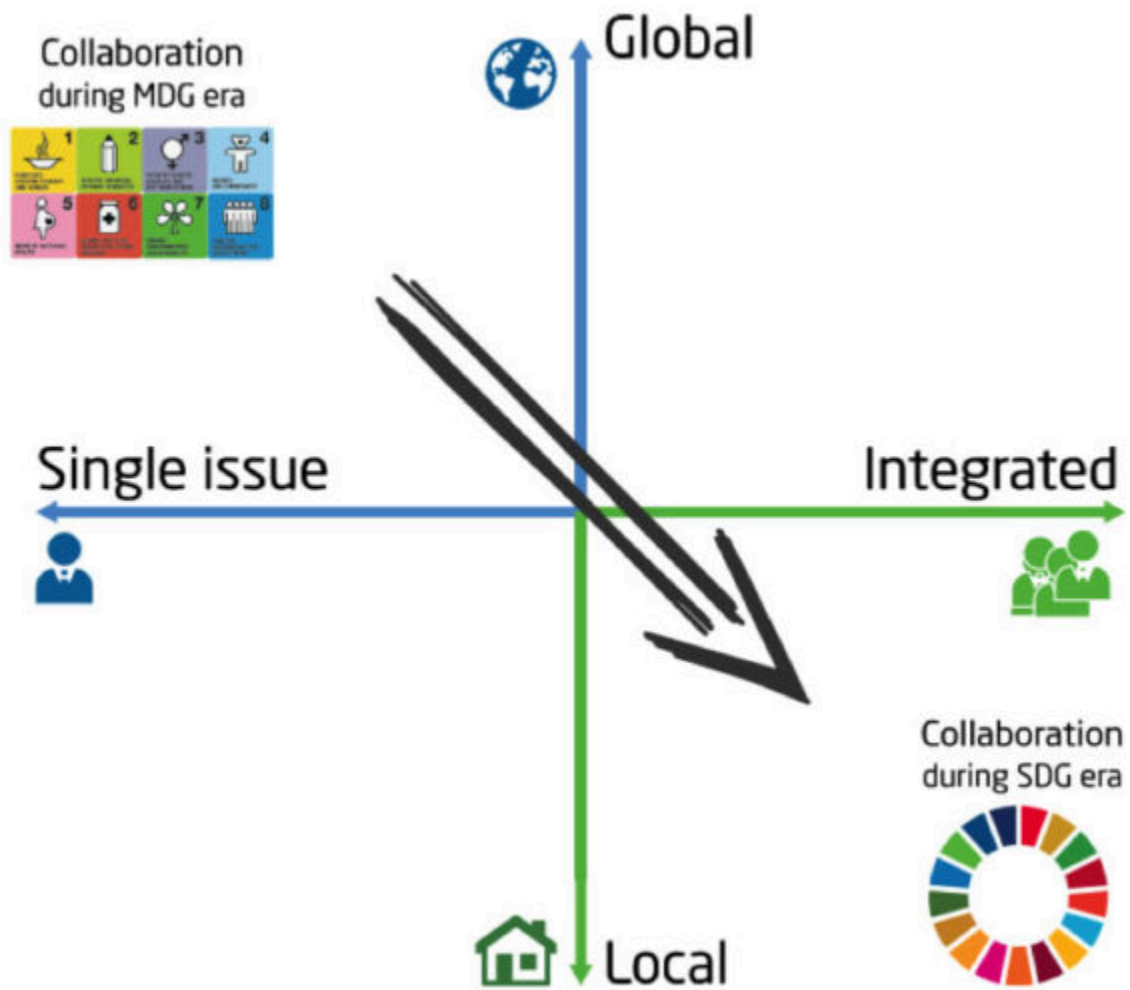


## Goal #1- No Poverty, Goal #2 – Zero Hunger, Goal #3 – Good Health and Well-being

This week we will be looking at the first three SDGs: #1- No Poverty, #2 – Zero Hunger, and #3 – Good Health and Well-being. These three SDGs work together to eradicate poverty and hunger to help all societies achieve a higher quality of life.

Previously we learned all UN member countries are working on the achievement of the 2030 Agenda. We discussed how the 17 SDGs, with their 169 targets and 230+ indicators work together to help promote a shared global framework to achieve an equitable and sustainable future for all. We also learned the different scales of SDG implementation – at the global, national, and local level.

We also noted many of the SDGs can only be achieved through extensive local action. For today's lecture, we will use Canada as an example to look at how each specific country adapts the global SDG targets and indicators to help set their own priorities and strategies for achieving the SDGs.



Graphic source: Netherlands Ministry of Foreign Affairs

# SDG #1 - NO POVERTY

---



## Video

In this 12-minute video made available from the SDG Academy, Jeffrey Sachs (Director of the Sustainable Development Solutions Network), looks at SDG#1 – ending extreme poverty. He discusses the resources available and how a lack of income distribution creates vast inequalities.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=104#oembed-1>*

## Analysis

Eradicating poverty in all its forms remains one of humanity's greatest challenges. Poverty forces individuals to make difficult choices, often between paying for necessities such as shelter, healthy food, clothing and medication, and causes food insecurity, social exclusion, inadequate housing, lack of access to services and other hardships. Poverty's multidimensional nature means that governments need to respond to both its causes and its consequences by addressing the various deprivations faced by those living in poverty<sup>1</sup>.

**Globally, more than 700 million people, or 10% of the world population, live in extreme poverty** – meaning

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

they struggle to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. The international poverty line, currently set at \$1.90 a day, is the universal standard for measuring global poverty. This line helps measure the number of people living in extreme poverty and helps compare poverty levels between countries. As the cost of living increases, poverty lines increase too. Since 1990, the international poverty line rose from \$1 a day, to \$1.25 a day, and most recently in 2015 to \$1.90. This means that \$1.90 is necessary to buy what \$1 could in 1990<sup>2</sup>.

**Nationally, in Canada, 3.7 million people or 10.1% of the population were living below the poverty line in 2019<sup>3</sup>.** This includes 9.7% or 1 in 10 children under the age of 18 were living in poverty. Canada's official poverty line was defined in 2019 based on the Market Basket Measure (MBM), defined by people who do not have enough income to purchase a specific basket of goods and services in their community<sup>3</sup>.

**Regionally, in Niagara, 64,000 people or 14.2% of the population were living below the poverty line in 2016<sup>4</sup>.** This includes 1 in 7 children under the age of 18 were living in poverty, which is 4.5% more than the national statistic (4). Niagara has one of the highest youth poverty rates in all of Canada<sup>5</sup>.

For those who work, having a job does not guarantee a decent living. In fact, 8% of employed workers and their families worldwide lived in extreme poverty in 2018<sup>2</sup>. Ensuring social protection for all children and other vulnerable groups is critical to reduce poverty<sup>2</sup>.

## Fast Facts

- One out of five children globally live in extreme poverty and the negative effects of poverty and deprivation in the early years have ramifications that can last a lifetime;
- It is estimated that child poverty affects about 50% of the world's children, or approximately 1.1 billion children worldwide live in poverty;
- According to the most recent estimates (2015) – 10 % of the world's population or 734 million people lived on less than \$1.90 a day;
- Worldwide, the poverty rate in rural areas is more than 3 times higher than in urban areas;
- The majority of people living on less than \$1.90 a day live in sub-Saharan Africa;
- Although countries impacted by fragility, crises, and violence are home to about 10% of the

2. United Nations. (2021). Sustainable Development Goals.

3. Statistics Canada. (2021). Canadian Income Survey, 2019

4. Niagara Connects. (2021). Living in Niagara Report 2020

5. Statistics Canada. (2017). Children living in low-income households



world's population, they account for more than 40% of people living in extreme poverty. By 2030, an estimated 67% of the world's poor will live in fragile contexts;

- In 2016, 55% of the world's population – about 4 billion people – did not benefit from any form of social protection;
- Even before COVID-19, baseline projections suggested that 6% of the global population would still be living in extreme poverty in 2030, missing the target of ending poverty. The fallout from the pandemic threatens to push over 70 million people into extreme poverty;
- Southern Asia and sub-Saharan Africa are expected to see the largest increases in extreme poverty, with an additional 32 million and 26 million people, respectively, living below the international poverty line as a result of the pandemic.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=104#h5p-7>*

## Why it matters

Why should I care about other people's economic situation? There are many reasons, but in short, because as human beings, our well-being is linked to each other. Growing inequality is detrimental to economic growth and undermines social cohesion, increasing political and social tensions and, in some circumstances, driving instability and conflicts. As we have seen with COVID-19, we are ALL connected. What happens globally affects us all.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=104#h5p-8>*



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=104#h5p-10>

## Targets and Indicators for Canada

As an example of a country level approach, below we will look at Canada's way of measuring progress on SDG #1 – No Poverty. Note the targets and indicators chosen<sup>6</sup>.



### Goal 1 End poverty in all its forms everywhere

#### Canadian Ambition: Reduce poverty in Canada in all its forms

Targets		Indicators	
T1.1.1	By 2030, a 50% reduction in the rate of poverty, compared to the 2015 level	I1.1.1	Poverty rate, as measured by Canada's official poverty line <small>Source: Statistics Canada. Table 11-10-0135-01 Low income statistics by age, sex and economic family type</small>
T1.2.1	No specific target	I1.2.1	Prevalence of asset resilience <small>Source: Statistics Canada. Table 11-10-0083-01 Percentage of persons who are asset resilient, Canada and provinces</small>

In comparison we will now look at the UN agreed upon SDG targets and indicators. You will see through Canada's example above, how an individual country can choose to implement the SDGs while benchmarking to the globally agreed 2030 Agenda targets and indicators.<sup>7</sup>

1. By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than US \$1.90 a day
  - a. Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)

6. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

7. United Nations Statistics Division. (2021). Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.

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
  - a. Proportion of population living below the national poverty line, by sex and age
  - b. Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
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
  - a. Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable
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
  - a. Proportion of population living in households with access to basic services
  - b. Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure
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
  - a. Number of deaths, missing persons and persons affected by disaster per 100,000 people
  - b. Direct disaster economic loss in relation to global gross domestic product (GDP)<sup>a</sup>
  - c. Number of countries with national and local disaster risk reduction strategies
6. Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions
  - a. Proportion of resources allocated by the government directly to poverty reduction programmes
  - b. Proportion of total government spending on essential services (education, health and social protection)
7. Create sound policy frameworks at the national, regional, and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions
  - a. Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. End poverty in all its forms everywhere.

# SDG #2 – ZERO HUNGER

---



## Video

In this 11-minute video made available from the SDG Academy, Dr. Jessica Fanzo (Director Johns Hopkins Global Food Ethics and Policy Program) looks at SDG#2 – ending hunger. This video discusses food security and how food security is measured, who is food insecure, where they are located and the progress to date on addressing the issues.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=107#oembed-1>

## Analysis

As the world's population continues to grow, one of our greatest challenges will be to ensure food security for all. Hunger and food insecurity remain a pressing problem, with significant negative consequences on the development potential of and quality of life in many countries. Although most of the world's food-insecure populations are in developing countries, all countries face unique food security challenges<sup>1</sup>. Food security, as defined by the United Nations' Committee on World Food Security, means that all people, at all times, have

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life<sup>2</sup>. How does hunger differ from food insecurity? Even if you have never experienced uncertainty about where our next meal is coming from, you probably have been hungry – how you feel when you need to eat. Hunger is an individual-level condition. Food insecurity is a household-level economic and social condition of limited or uncertain access to adequate food. International bodies such as the UN use both terms, while many countries government may only use the term food insecurity<sup>2</sup>.

Current estimates show that nearly 690 million people are hungry, or 8.9% of the world population. According to the World Food Programme, 135 million suffer from acute hunger largely due to human-made conflicts, climate change, and economic downturns<sup>2</sup>. For Canada, 1 in 8 households (2018) was food insecure, amounting to 4.4 million people (12% of the population), including more than 1.2 million children<sup>3</sup>.

The world is not on track to achieve Zero Hunger by 2030. If recent trends continue, the number of people affected by hunger would surpass 840 million by 2030 (2). With more than a quarter of a billion people potentially at the brink of starvation, swift action needs to be taken to provide food and humanitarian relief to the most at-risk regions. At the same time, a profound change of the global food and agriculture system is needed if we are to nourish the more than 690 million people who are hungry today – and the additional 2 billion people the world will have by 2050. Increasing agricultural productivity and sustainable food production are crucial to help alleviate the perils of hunger.

## Fast Facts

- An estimated 2 billion people in the world did not have regular access to safe, nutritious, and sufficient food in 2019;
- In 2019, close to 750 million – or nearly one in ten people in the world – were exposed to severe levels of food insecurity;
- Current estimates are that nearly 690 million people are hungry, or 8.9 percent of the world population – up by 10 million people in one year and by nearly 60 million in five years;
- Individuals become food insecure for any number of complex reasons, but the root cause is nearly always poverty. Environmental crises and a wide variety of political factors also

2. United Nations. (2021). Sustainable Development Goals.

3. Tarasuk ,V., & Mitchell, A. (2020). Household food insecurity in Canada, 2017-18. Toronto: Research to identify policy options to reduce food insecurity (PROOF).

contribute to hunger and food insecurity globally;

- The majority of the world’s undernourished – 381 million – are found in Asia, with more than 250 million living Africa where the number of undernourished is growing faster than anywhere in the world;
- 144 million children under age 5 were affected by stunting in 2019, with three quarters living in Southern Asia and sub-Saharan Africa;
- In 2019, 6.9% (or 47 million) children under 5 were affected by wasting, or undernutrition, a condition caused by limited nutrient intake and infection.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=107#h5p-12>*

## Why it Matters

Why should I care about other people’s food insecurity situation? There are many reasons, but in short, because ethically we should want all people to have enough food to eat that is safe and nutritious. A world with zero hunger can positively impact our economies, health, education, equality, and social development. It’s a key piece of building a better future for everyone.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=107#h5p-13>*

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #2 – Zero Hunger. Note the targets and indicators chosen<sup>4</sup>.

**2** ZERO HUNGER



### Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

#### Canadian Ambition: Canadians have access to sufficient, affordable and nutritious food

Target	Indicator
T2.1.1 No specific target	I2.1.1 Prevalence of food insecurity <small>Source: Statistics Canada. Table 13-10-0385-01 Household food security by living arrangement</small>

#### Canadian Ambition: Canadian agriculture is sustainable

Target	Indicator
T2.2.1 By 2030, support improvement in the environmental performance of the agriculture sector by achieving a score of 71 or higher for the Index of Agri-Environmental Sustainability	I2.2.1 Index of Agri-Environmental Sustainability <small>Source: Agriculture and Agri-Food Canada. Custom tabulation</small>

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.



# SDG #3 - GOOD HEALTH AND WELL-BEING

---



## Video

In this 12-minute video made available from the SDG Academy, Jeffrey Sachs looks at SDG #3 – Good Health and Well-being. He discusses the many dimensions of achieving this SDG including access to universal health care and an integrated health system. He also discusses social determinants of health, such as rising opioid and obesity epidemics due to poorly regulated industry.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=131#oembed-1>*

## Analysis

Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. Good physical and mental health is essential for individual well-being, supports equality, enables inclusive and sustainable growth, efficient labour markets, and enables robust community participation and engagement. By achieving good health for all, societies can be more peaceful, inclusive, and more prosperous<sup>1</sup>. In 2017, only

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

around one third to half of the global population was covered by essential health services. If current trends continue, only 39% to 63% of the global population will be covered by essential health services by 2030<sup>2</sup>.

Before the COVID-19 pandemic, major progress was made in improving the health of millions of people. Significant strides were made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. But more efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging health issues<sup>2</sup>. By focusing on providing more efficient funding of health systems, improved sanitation and hygiene, and increased access to physicians, significant progress can be made in helping to save the lives of millions<sup>2</sup>.

Health emergencies such as COVID-19 pose a global risk and have shown the critical need for preparedness. The United Nations Development Programme highlighted huge disparities in countries' abilities to cope with and recover from the COVID-19 crisis<sup>2</sup>. The pandemic provides a watershed moment for health emergency preparedness and for investment in critical 21st century public services.

## Fast Facts

### Child health

- In 2018 an estimated 6.2 million children and adolescents under the age of 15 years died, mostly from preventable causes. Of these deaths, 5.3 million occurred in the first 5 years, with almost half of these in the first month of life;
- Despite determined global progress, an increasing proportion of child deaths are in sub-Saharan Africa and Southern Asia. Four out of every five deaths of children under age five occur in these regions;
- Children in sub-Saharan Africa are more than 15 times more likely to die before the age of 5 than children in high income countries;
- Malnourished children, particularly those with severe acute malnutrition, have a higher risk of death from common childhood illness such as diarrhoea, pneumonia, and malaria. Nutrition-related factors contribute to about 45% of deaths in children under-5 years of age.

2. United Nations. (2021). Sustainable Development Goals.

## Maternal health

- Over 40% of all countries have fewer than 10 medical doctors per 10,000 people; over 55% of countries have fewer than 40 nursing and midwifery personnel per 10,000 people;
- Every day in 2017, approximately 810 women globally died from preventable causes related to pregnancy and childbirth;
- 94% of all maternal deaths occur in low and lower middle-income countries.
- Young adolescents (ages 10-14) face a higher risk of complications and death as a result of pregnancy than other women;
- Maternal mortality ratio (the proportion of mothers that do not survive childbirth compared to those who do) is 14 times higher in under develop or developing regions than in developed regions.

## HIV/AIDS and Malaria

- 690 000 people died from AIDS-related illnesses in 2019;
- 38 million people globally were living with HIV in 2019;
- 1.7 million people became newly infected with HIV in 2019;
- 75.7 million people have become infected with HIV since the start of the epidemic;
- 32.7 million people have died from AIDS-related illnesses since the start of the epidemic;
- Tuberculosis remains the leading cause of death among people living with HIV, accounting for around one in three AIDS-related deaths;
- Globally, adolescent girls and young women face gender-based inequalities, exclusion, discrimination and violence, which put them at increased risk of acquiring HIV;
- HIV is the leading cause of death for women of reproductive age worldwide;
- AIDS is now the leading cause of death among adolescents (aged 10–19) in Africa and the second most common cause of death among adolescents globally;
- Over 6.2 million malaria deaths have been averted between 2000 and 2015, primarily of children under five years of age in sub-Saharan Africa. The global malaria incidence rate has fallen by an estimated 37 % and the mortality rates by 58%.



*An interactive H5P element has been excluded from this version of the text. You can view it*



online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=131#h5p-15>

## Why it Matters

Ensuring healthy lives and promoting well-being is important to building prosperous societies. Healthy people are the foundation for healthy economies, and all of our economies are linked together.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=131#h5p-16>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #3 – Good Health and Well-being. Note the targets and indicators chosen<sup>3</sup>.

---

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

### 3 GOOD HEALTH AND WELL-BEING



#### Goal 3

#### Ensure healthy lives and promote well-being for all at all ages

##### Canadian Ambition: Canadians adopt healthy behaviour

Targets		Indicators	
T3.1.1	By March 31, 2022, 30% of Canadians report eating fruits and vegetables 5 or more times per day	I3.1.1	Percentage of Canadians who report eating fruits and vegetables 5 or more times per day  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates
T3.2.1	By 2023, less than 10% of students (grades 7-12) have used a vaping product (e-cigarettes only) in the past 30 days	I3.2.1	Prevalence of vaping among youth  <b>Source:</b> University of Waterloo. Canadian Student Tobacco, Alcohol and Drugs Survey
T3.3.1	No specific target	I3.3.1	Percentage of the population that is overweight or obese  <b>Source:</b> Statistics Canada. Table 13-10-0373-01 Overweight and obesity based on measured body mass index, by age group and sex
T3.4.1	No specific target	I3.4.1	Prevalence of harmful alcohol use  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates

##### Canadian Ambition: Canadians have healthy and satisfying lives

Targets		Indicators	
T3.5.1	No specific target	I3.5.1	Percentage of Canadians who are satisfied or very satisfied with their life  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates
T3.6.1	No specific target	I3.6.1	Percentage of Canadians who perceived their overall health and social well-being as very good to excellent  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates
T3.7.1	No specific target	I3.7.1	Percentage of Canadians who perceived their mental health as very good to excellent  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates

## Canadian Ambition: Canada prevents causes of premature death

Targets		Indicators	
T3.8.1	By 2025, 95% coverage of all childhood vaccines and 90% coverage of all adolescent vaccines	I3.8.1	Vaccination rates for selected diseases  <b>Source:</b> Statistics Canada and Public Health Agency of Canada, Childhood National Immunization Coverage Survey
T3.9.1	No specific target	I3.9.1	Incidence of selected diseases  <b>Source:</b> Public Health Agency of Canada, Canadian Chronic Disease Surveillance System
T3.10.1	No specific target	I3.10.1	Mortality rate for selected causes of death  <b>Source:</b> Statistics Canada, Table 13-10-0394-01 Leading causes of death, total population, by age group
T3.11.1	Eliminate tuberculosis across Inuit Nunangat by 2030, and reduce the incidence of active tuberculosis by at least 50% by 2025	I3.11.1	Tuberculosis incidence per 100,000 population in Inuit Nunangat  <b>Source:</b> Public Health Agency of Canada, Canadian Tuberculosis Reporting System
T3.12.1	Reduction from the previous year in the incidence of opioid and stimulant overdose related harms	I3.12.1	Incidence of opioid and stimulant overdose related harms  <b>Source:</b> Public Health Agency of Canada, Opioid- and Stimulant-related Harms in Canada
T3.13.1	By 2035, less than 5% of Canadians (aged 15+) are cigarette smokers	I3.13.1	Prevalence of cigarette smoking  <b>Source:</b> Statistics Canada, Table 13-10-0096-01 Health characteristics, annual estimates

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Ensure healthy lives and promote well-being for all at all ages.

# REFLECTION, COMPREHENSION, DISCUSSION, READINGS

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=149#h5p-17>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*

*online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=149#h5p-18>

## Discussion Question

- Discuss the various ways SDG #1 – No Poverty, #2 – Zero Hunger, and #3 – Good health and well-being, all work together to support the eradication of poverty and hunger to help all societies achieve a higher quality of life.

## Recommended Readings

You will notice the two readings below are also found in this week lecture reference list. We have provided them here as recommended readings to help obtain a better understanding of how each country (in this case Canada) is obligated through the 2030 Agenda to develop a country specific approach to implementing the SDGs. Canada's approach is outlined in recommended reading 1 below. Canada's (as with all other UN member countries) approach is informed by the global indicators and targets outlined in recommended reading 2 below.

- Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals
- United Nations Statistics Division. (2021). Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.



# WEEK 4

## Goal #5 – Gender Equality, Goal #10 – Reduced Inequalities



This week we will be looking at Goal # 5, Gender Equality and Goal # 10, Reduced Inequalities. These two SDGs work together to achieve gender equality, empower all women and girls while reducing inequalities locally, nationally, and worldwide for all.



# SDG #5 - GENDER EQUALITY

---



## Video

In this 25-minute video made available from the SDG Academy, Jeffrey Sachs looks at SDG #5 – Gender Equality. This video focuses on the persistence of gender inequality, the role of diminishing gender inequality in sustainable development, highlighting the existence of poverty disparities between genders and educational inequality between genders.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=191#oembed-1>

## Analysis

Women and girls often face multiple and intersecting forms of discrimination, including due to their race, ethnicity, geographic location, income and education status, religion, language, sexual orientation, gender identity, age, ability or migrant or refugee status. Around the world, including in Canada, discrimination and ingrained social and gender biases continue to limit women and girls' participation and advancement in economic, social, and political spheres<sup>1</sup>.

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

Despite progress over the last several decades with more girls going to school, fewer forced early marriages, increased women working in leadership positions, and improved equity laws, gender inequality still persists<sup>2</sup>. Many challenges remain such as discriminatory laws and social norms with women less valued than men by many societies. Worldwide, women only make 77 cents for every dollar earned by men<sup>3</sup>. Wage inequality between men and women persists in all countries and across all sectors, because women's work is persistently under-valued and remunerated less<sup>3</sup>. For Canada, women earn 87 cents for every dollar earned by a man<sup>4</sup>.

Women experience far greater levels of violence and harassment than men, with 1 in 5 women and girls (globally) between the ages of 15 and 49 report experiencing physical or sexual violence by an intimate partner within a 12-month period<sup>2</sup>. For Canada, 4 in 10 women have experienced some form of intimate partner violence in their lifetimes<sup>5</sup>. In 2018, 44% of women in the Canadian population reported experiencing some form of psychological, physical, or sexual violence by an intimate partner in their lifetimes<sup>5</sup>. Approximately every 6 days, a woman in the Canadian population is killed by her intimate partner, with Indigenous women and girls 12 times more likely to be murdered or go missing than other women<sup>6</sup>.

The 2030 Agenda envisions a world where all women and girls are valued and empowered, have control over their own lives, fully participate as decision makers in their homes and societies, and contribute to and benefit from development and prosperity equally. Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous, and sustainable world.

## Fast Facts

- One in five women and girls have experienced physical and/or sexual violence by an intimate partner within the last 12 months;
- Globally, in 18 countries, husbands can legally prevent their wives from working; in 39 countries, daughters and sons do not have equal inheritance rights; and 49 countries lack laws protecting women from domestic violence;
- Globally, 750 million women and girls were married before the age of 18 and at least 200 million women and girls in 30 countries (where this practice is concentrated) have

2. United Nations. (2021). Sustainable Development Goals.

3. UN Women. (2021). Equal pay for work of equal value.

4. Statistics Canada. (2021). The gender wage gap in Canada: 1998 to 2018.

5. Statistics Canada. (2021). Intimate partner violence in Canada, 2018.

6. Canadian Women's Foundation. (2021). What is the scope of gender-based violence in Canada?

undergone female genital mutilation;

- Women are underrepresented at all levels of management and political leadership, working disproportionately in insecure labour markets with nearly 60% of women working in the informal economy, which puts them at greater risk of falling into poverty, food insecurity, and having poor health and well-being;
- While women have made important inroads into political office across the world, their representation in national parliaments at 23.7% is still far from parity;
- Only 52% of women married or in a union freely make their own decisions about sexual relations, contraceptive use, and health care;
- Globally, women are just 13% of agricultural land holders.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=191#h5p-20>

## Why it Matters

Why should I care about gender equality? Women and girls represent half of the world's population and therefore also half of its potential. Unfortunately, gender inequality persists everywhere and stagnates social progress, and is detrimental to economic growth causing increased political and societal tensions, leading to instability and conflicts.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=191#h5p-34>

## Targets and Indicators for Canada

Below we will look at Canada's way of measuring progress on SDG #5 – Gender Equality. Note the targets and indicators chosen<sup>7</sup>.



### Goal 5 Achieve gender equality and empower all women and girls

#### Canadian Ambition: Eliminate gender-based violence and harassment

Target	Indicators
T5.1.1 Fewer women are victims of intimate partner violence and sexual assault	I5.1.1 Proportion of the population who self-reported being sexually assaulted in the last 12 months <small>Source: Statistics Canada. Survey of safety in public and private spaces</small>
	I5.1.2 Proportion of women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the last 12 months <small>Source: Statistics Canada. Survey of safety in public and private spaces</small>

#### Canadian Ambition: Gender equality in leadership roles and at all levels of decision-making

Target	Indicator
T5.2.1 Greater representation of women in leadership roles	I5.2.1 Proportion of leadership roles held by women <small>Sources: Statistics Canada. Table 37-10-0208-01 Canadian judges by selected demographic characteristics and sex; Statistics Canada. Table 10-10-0137-01 Representation of women and men elected to national Parliament and of ministers appointed to federal Cabinet; Statistics Canada. Table 14-10-0335-01 Labour force characteristics by occupation, annual; Statistics Canada. Table 41-10-0048-01 Representation of men and women in First Nation band councils and Chiefs in First Nation communities by sex</small>

#### Canadian Ambition: Canadians share responsibilities within households and families

Target	Indicator
T5.3.1 Equal sharing of parenting roles and family responsibilities	I5.3.1 Proportion of time spent on unpaid domestic and care work <small>Source: Statistics Canada. Table 45-10-0014-01 Daily average time spent in hours on various activities by age group and sex, 15 years and over, Canada and provinces</small>

7. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Achieve gender equality and empower all women and girls.

# SDG #10 - REDUCED INEQUALITIES

---



## Video

In this 13-minute video made available from the SDG Academy, Jeffrey Sachs looks at SDG #10 – Reduced Inequalities. This video introduces the idea of inequality in the context of a country, identifying countries that were able to reduce inequality while developing and those who were not able. It further examines the different reasons for inequality in the context of history, gender, and society.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=193#oembed-1>

## Analysis

Reducing inequality, promoting diversity, and providing all people with the opportunity to reach their full potential is not only the right thing to do, but also good business to create a growing economy that benefits everyone<sup>1</sup>.

Reducing inequalities and ensuring no one is left behind are integral to achieving the Sustainable Development Goals. Inequality within and among countries is a persistent cause for concern. Despite some positive signs toward reducing inequality in some dimensions, such as reducing relative income inequality in some countries and preferential trade status benefiting lower-income countries, inequality still persists.

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.



Looking at health, the United Nations estimate a global average life expectancy of 72.6 years<sup>2</sup>. For Canada, the life expectancy (national average) is 82.9 years, with extreme variability across the country due to many social-economical inequality factors. For example, in Hamilton, Ontario, there is a 23-year gap in life expectancy between different neighbourhoods with the highest life expectancy at 87.7 years, and the lowest at 64.8 years<sup>3</sup>.

Inequalities are also deepening for vulnerable populations in countries with weaker health systems and those facing existing humanitarian crises. Refugees and migrants, as well as Indigenous Peoples, older persons, people with disabilities and children are particularly at risk of being left behind.

## Fast Facts

- Evidence from developing countries shows that children in the poorest 20% of the populations are still up to 3 times more likely to die before their fifth birthday than children in the richest counties;
- Social protection has been significantly extended globally, yet persons with disabilities are up to 5 times more likely than average to incur catastrophic health expenditures;
- Despite overall declines in maternal mortality in most developing countries, women in rural areas are still up to 3 times more likely to die while giving birth than women living in urban centres;
- Up to 30% of income inequality is due to inequality within households, including between women and men. Women are also more likely than men to live below 50% of the median income;
- Of the 1 billion population of persons with disabilities, 80% live in developing countries;
- Globally, 1 in 10 children has a disability;
- Globally, only 28% of persons with significant disabilities have access to disability benefits, and only 1% for those in low-income countries.



*An interactive HSP element has been excluded from this version of the text. You can view it*

2. United Nations. (2021). Sustainable Development Goals.

3. McMaster University. (2019). Starting the conversation about social inequality and healthy aging.

online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=193#h5p-25>

## Why it Matters

Why should I care about reduced inequalities? Inequality threatens long-term social and economic development, increases poverty, hunger, and poor health to name a few. This, in turn, can breed crime, disease, and environmental degradation. We cannot make the planet better for all people if many people are excluded from the chance for a better life.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=193#h5p-39>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #10 – Reduced Inequalities. Note the targets and indicators chosen<sup>4</sup>.

---

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

# 10 REDUCED INEQUALITIES



## Goal 10 Reduce inequality within and among countries

**Canadian Ambition: Canadians live free of discrimination and inequalities are reduced**

Targets	Indicators
T10.1.1 No specific target	I10.1.1 Gini Coefficient <b>Source:</b> Statistics Canada. Table 11-10-0134-01 Gini coefficients of adjusted market, total and after-tax income
T10.2.1 No specific target	I10.2.1 Proportion of the population reporting discrimination or unfair treatment <b>Source:</b> Statistics Canada. Custom tabulation
T10.3.1 No specific target	I10.3.1 Median hourly wage ratio <b>Sources:</b> Statistics Canada. Table 14-10-0340-01 Employee wages by occupation, annual; Statistics Canada. Table 14-10-0370-01 Average hourly and weekly wages and average usual weekly hours by Indigenous group
T10.4.1 No specific target	I10.4.1 Median household after-tax income <b>Sources:</b> Statistics Canada. Table 11-10-0190-01 Market income, government transfers, total income, income tax and after-tax income by economic family type

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Reduce inequality within and among countries.

# REFLECTION, COMPREHENSION, DISCUSSION

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdginintro/?p=253#h5p-47>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*

online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=253#h5p-48>

## Discussion Questions

- The United Nations has identified investing early in human capital is an important strategy for reducing inequalities. What are some actions that can be taken whether here in Canada or in your own country to support this strategy?
- We saw earlier an example from Hamilton Ontario, Canada, a 23-year gap in life expectancy between different neighbourhoods with the highest life expectancy at 87.7 years, and the lowest at 64.8 years<sup>1</sup>.
  - Option 1) Discuss the reasons of this variation with possible avenues of solutions.
  - Option 2) Look to your own country or geographic region, does a similar disparity exist? If yes, explore why. If no, explore possible mechanisms in place that are preventing / alleviating disparities.

---

1. McMaster University. (2019). Starting the conversation about social inequality and healthy aging.

# POVERTY AND HUNGER ASSIGNMENT

---

## Background

Poverty and hunger are inextricably linked. Poverty causes hunger, but not every person living in poverty faces chronic hunger. However, almost all people facing chronic hunger are also living in poverty.

Overcoming poverty will require holistic approaches to address the root causes. For example, globally, millions of people are living with food insecurity and hunger because they simply cannot afford to buy enough food, cannot afford the farming supplies they need to grow enough good food of their own, or live in regions where climate change is affecting a landscapes ability to support viable agriculture. Rural households are typically the most affected by the consequences of poverty and hunger. In addition to causing hunger, poverty limits a rural community's ability to invest in its own development. Often, rural girls living in poverty will be kept out of school to save money. This contributes to the gender disparity in the education, and between rural and urban girls. The lack of education leads to higher adolescent birth rates which can over-burden an already economically strained community, perpetuating a cycle of gender inequality, poverty, and hunger.

Pulling people out of poverty will not be accomplished through unsustainable and unreliable charity. It will require social justice to ensure basic human rights are met, leaving no one behind, while allowing everyone the opportunity to fulfill their right to a dignified and decent life. For many counties and societies this will include building the capacity of women and men and may involve skills training, enhanced education, and knowledge mobilization to provide the necessary tools and resource to improve livelihoods and communities to build better futures for themselves and their children.

## Assignment

This assignment will look at food insecurity for a named country. The collected information will be based on a thorough literature review of the issues and pathways for solutions.

1. Looking at your own country or a country of interest, assess and report on the food insecurity situation at the national level (what is the status of food security for this country).
2. Critically assess and report approaches for reducing food insecurity at the local level (for a local community) within your chosen country.
  - a. What is the food insecurity situation for this community?
  - b. What are the current strategies being implemented (if any)? What is working and not working?
  - c. What are some strategies and programs you would recommend to help pull this community out of

food insecurity?



*Poverty in Viet  
Nam – United  
Nations Photo*





# WEEK 5

## Goal #6 – Clean Water and Sanitation, Goal #7 – Affordable and Clean Energy



This week we will be looking at Goal # 6 – Clean Water and Sanitation and Goal #7 – Affordable and Clean Energy and how they work together to help all societies achieve a higher quality of life by providing universal access to basic essential services.



# SDG #6 - CLEAN WATER AND SANITATION

---



## Video

In this 10-minute video made available from the SDG Academy, Alejandro Jiménez (Director, Stockholm International Water Institute) looks at SDG #6 – Clean Water and Sanitation. This video discusses inadequate water access, sanitation, and hygiene services as not only related to health issues and protection of the environment but also as a violation of human rights.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=204#oembed-1>*

## Analysis

Water connects the environment with our livelihoods. Improving access to clean water, especially in areas vulnerable to water scarcity, alleviates poverty, improves health and is a precondition for improved quality of life<sup>1</sup>. In July 2010, the United Nations passed a Resolution explicitly recognizing the human right to water and sanitation. The Resolution requires all UN member states to provide financial resources, technology, and capacity to help countries provide safe, clean, accessible, and affordable drinking water and sanitation for all<sup>2</sup>.

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

While substantial progress has been made in increasing access to clean drinking water and sanitation, billions of people, mostly in rural areas, still lack these basic services. Worldwide, 1 in 3 people do not have access to safe drinking water, 2 out of 5 people do not have a basic hand-washing facility with soap and water, and open defecation is a reality for more than 673 million people or 9% of the global population<sup>2</sup>.

For Canada, access to safe water for drinking and sanitation is increasing, however; access to clean water has yet to be secured for all people in Canada's population<sup>1</sup>. Indigenous communities across Canada continue to experience health problems caused by poor water and sanitation, in July 2020, for example, there were 750 boil-water advisories in Canada<sup>3</sup>. First Nations reserves and communities with long-term boil water advisories are faced with the burden of having to boil and/or obtain bottled water for daily use and consumption. This burden is compounded by socio-economic barriers that include poor housing and infrastructure, remoteness, and poverty<sup>1</sup>.

The COVID-19 pandemic has demonstrated the critical importance of sanitation, hygiene, and adequate access to clean water for preventing and containing diseases. Hand hygiene saves lives. According to the World Health Organization, hand-washing is one of the most effective actions you can take to reduce the spread of pathogens and prevent infections, including the COVID-19 virus. Yet billions of people still lack safe water sanitation, and funding is inadequate.

## Fast Facts

- Each day, nearly 1,000 children die due to preventable water and sanitation-related diarrheal diseases;
- Globally, 3 in 10 people lack access to safely managed drinking water services and 6 in 10 people lack access to safely managed sanitation facilities;
- 2.4 billion people lack access to basic sanitation services, such as toilets or latrines with at least 892 million people continue to practice open defecation;
- 1 in 4 health care facilities lacks basic water services;
- Women and girls are responsible for water collection in 80% of households without access to water on premises;
- Water scarcity affects more than 40% of the global population and is projected to rise;
- Over 1.7 billion people are currently living in river basins where water use exceeds recharge;
- Worldwide, more than 80% of wastewater resulting from human activities is discharged

3. University Affairs. (2021). Canada's troubled waters.

into rivers or sea without any pollution removal;

- Approximately 70% of all water abstracted from rivers, lakes and aquifers is used for irrigation;
- Floods and other water-related disasters account for 70% of all deaths related to natural disasters.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=204#h5p-21>

## Why it Matters

Why should I care about clean water and sanitation? Millions of people die every year, including millions of children, from water-related diseases such as malaria and diarrhoea. Water is essential not only to health, but also to poverty reduction, food security, peace and human rights, ecosystems, and education. The lack of clean water and proper sanitation undermines prosperity and efforts towards a more sustainable future.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=204#h5p-35>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #6 – Clean Water and Sanitation. Note the targets and indicators chosen<sup>4</sup>.

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

## 6 CLEAN WATER AND SANITATION



### Goal 6 Ensure availability and sustainable management of water and sanitation for all

**Canadian Ambition: Canadians have access to drinking water and use it in a sustainable manner**

Targets		Indicators	
T6.1.1	All of the long-term drinking water advisories on public systems on reserve are to be resolved	I6.1.1	Number of long-term drinking water advisories on public systems on reserves  <b>Source:</b> Indigenous Services Canada. Water in First Nations communities
T6.2.1	No specific target	I6.2.1	Percentage of municipalities across Canada with sustained drinking water advisories  <b>Sources:</b> Statistics Canada. Table 34-10-0209-01 Municipal owners of potable water assets by drinking water advisories that exceeded 15 days, urban and rural, and population size, Infrastructure Canada; Statistics Canada. Table 34-10-0208-01 Public owners of potable water assets by drinking water advisories that exceeded 15 days, Infrastructure Canada; Statistics Canada. Table 34-10-0192-01 Inventory of publicly owned potable water assets, Infrastructure Canada
T6.3.1	No specific target	I6.3.1	Water use growth rate  <b>Source:</b> Statistics Canada. Table 38-10-0250-01 Physical flow account for water use (x 1,000)
T6.4.1	No specific target	I6.4.1	Water quality in Canadian rivers  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Water quality in Canadian rivers" <b>Source:</b> Environment and climate change Canada. Custom tabulation

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Ensure availability and sustainable management of water and sanitation for all.

# SDG #7 - AFFORDABLE AND CLEAN ENERGY

---



## Video

In this 10-minute video made available from the SDG Academy, Jeffrey Sachs looks at SDG #7 – Clean and Affordable Energy. This video addresses clean energy and industry as a key transformation for the SDGs, with a brief discussion of rising CO2 emissions, followed by the energy components needed for a transformation including: zero-carbon electricity, electrification of energy users, greater energy efficiency, and reducing industrial pollutants.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdginintro/?p=206#oembed-1>*

## Analysis

Ensuring access to affordable and sustainable energy is critical to the quality of our lives and the strength of our economies. Countries that overcome the challenges, and transition to cleaner forms of energy will help ensure access to affordable, reliable, sustainable, and modern energy for all<sup>1</sup>.

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review

The world is making progress towards SDG #7, with encouraging signs that energy is becoming more sustainable and widely available. Access to electricity in poorer countries has begun to accelerate, energy efficiency continues to improve, and renewable energy is making impressive gains in the electricity sector<sup>2</sup>. Nevertheless, more focused attention is needed to improve access to clean and safe cooking fuels and technologies to expand the use of renewable energy beyond the electricity sector.

## Fast Facts

- 13% of the global population lacks access to modern electricity;
- 3 billion people rely on wood, coal, charcoal or animal waste for cooking and heating;
- Energy is the dominant contributor to climate change, accounting for around 60% of total global greenhouse gas emissions;
- Indoor air pollution from using combustible fuels for household energy caused 4.3 million deaths in 2012, with women and girls accounting for 6 out of every 10 of these;



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=206#h5p-22>

## Why it Matters

Why should I care about clean and affordable energy? For many decades, fossil fuels such as coal, oil or gas have been major sources of electricity production, but burning carbon fuels produces large amounts of greenhouse gases which cause climate change and have harmful impacts on people's well-being and the environment. This affects everyone, not just a few.

---

2. United Nations. (2021). Sustainable Development Goals.





An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=206#h5p-36>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #7 – Affordable and Clean Energy. Note the targets and indicators chosen<sup>3</sup>.

### 7 AFFORDABLE AND CLEAN ENERGY



#### Goal 7

**Ensure access to affordable, reliable, sustainable and modern energy for all**

#### Canadian Ambition: Canadians reduce their energy consumption

Targets	Indicators
T7.1.1 By 2030, 600 petajoules of total annual energy savings will be achieved as a result of the adoption of energy efficiency codes, standards and practices from a baseline savings of 20.0 petajoules in 2017 to 2018	I7.1.1 Annual energy savings resulting from the adoption of energy efficiency codes, standards and practices <b>Source:</b> Natural Resources Canada. Custom tabulation
T7.2.1 No specific target	I7.2.1 Total energy consumption per capita <b>Sources:</b> Statistics Canada. Table 25-10-0029-01 Supply and demand of primary and secondary energy in terajoules, annual; Statistics Canada. Table 25-10-0020-01 Electric power, annual generation by class of producer; Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex

#### Canadian Ambition: Canadians have access to clean and renewable energy

Target	Indicator
T7.3.1 By 2030, 90%, and in the long term 100%, of Canada's electricity is generated from renewable and non-emitting sources	I7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources <b>Source:</b> Statistics Canada. Table 25-10-0020-01 Electric power, annual generation by class of producer

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Ensure access to affordable, reliable, sustainable, and modern energy for all.

# REFLECTION, COMPREHENSION, DISCUSSION

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=251#h5p-50>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*

*online here:*

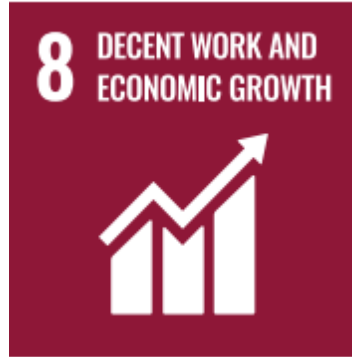
<https://ecampusontario.pressbooks.pub/sdgintro/?p=251#h5p-51>

## Discussion Questions

- Canada has more freshwater than any other country in the world, yet thousands of people within Canada's population does not have access to a clean, safe, and reliable water supply. What is the situation for your country? Does it remain a challenge, if so, why?
- What action(s) do you think you can personally take to advance progress on SDG #6 – Clean Water and Sanitation?

# WEEK 6

## Goal #4 – Quality Education, Goal #8 – Decent Work and Economic Growth



This week we will be looking at SDG Goal #4 – Quality Education and SDG Goal #8 – Decent Work and Economic Growth and how they work together to support fair and socially just economic opportunities.



# SDG #4 - QUALITY EDUCATION

---



## Video

In this 10-minute video made available from the SDG Academy, Jeffery Sachs looks at the six key transformation pathways to the SDGs, followed by a more in-depth analysis of education, inclusion, jobs, and growth. Professor Sachs' analysis includes discussion of early childhood development, gender fairness, the school-to-work transition, the maintenance of labor standards throughout the economy, and making the economy more innovative.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=235#oembed-1>*

## Analysis

Education enables upward socioeconomic mobility and is a key to escaping poverty<sup>1</sup>.

Over the past decade, major progress was made towards increasing access to education and school enrolment rates at all levels, particularly for girls. Nevertheless, about 260 million children were still out of school in

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2018, which is 20% of the global population in that age group<sup>2</sup>. More than half of all children and adolescents worldwide are not meeting minimum proficiency standards in reading and mathematics<sup>2</sup>.

Canada's population are among the most educated people in the world, with 54% of adults aged 25 to 64 having completed post-secondary education in 2016, compared to the Organization for Economic Cooperation and Development (OECD) countries with an average of 36.7%<sup>1</sup>. Although the percentage of the Canadian population with post-secondary degrees have steadily increased since 1990, with women consistently attaining higher rates of post-secondary education than men, problems still exist<sup>1</sup>. Canada still experiences a high degree of academic and therefore occupational gender segregation, with men comprising two thirds of post-secondary graduates in science, technology, engineering, and mathematics (STEM), with an even greater disparity in engineering and computer science programs and skilled trades<sup>1</sup>. Less than 14% of engineers in Canada are women<sup>3</sup>.

Worldwide, including Canada, education systems do not respect Indigenous Peoples' diverse cultures<sup>4</sup>. There are too few teachers who speak their languages, and their schools often lack basic materials. Educational materials that provide accurate and fair information on indigenous peoples and their ways of life are particularly rare<sup>4</sup>. Despite the numerous international instruments that proclaim universal rights to education, Indigenous Peoples do not fully enjoy these rights, and an education gap between indigenous peoples and the rest of the population remains critical, worldwide<sup>4</sup>.

In 2020, as the COVID-19 pandemic spread across the globe, a majority of countries announced the temporary closure of schools, impacting more than 9% of students worldwide. By April 2020, close to 1.6 billion children and youth were out of school<sup>2</sup>. And nearly 369 million children who rely on school meals needed to look to other sources for daily nutrition<sup>2</sup>. Never before have so many children been out of school at the same time, disrupting learning and upending lives, especially the most vulnerable and marginalized<sup>2</sup>. The global pandemic has far-reaching consequences that may jeopardize hard won gains made in improving global education.

## Fast Facts

- Before the coronavirus crisis, projections showed that more than 200 million children were not enrolled in school, and only 60% of young people would be completing upper

2. United Nations. (2021). Sustainable Development Goals.

3. Engineers Canada. (2021). Retention of women in engineering.

4. United Nations. (2021). Department of Economic and Social Affairs - Indigenous Peoples, Education status.



secondary education in 2030;

- More than half of children that have not enrolled in school live in sub-Saharan Africa, and more than 85% per cent of children in sub-Saharan Africa are not learning the minimum;
- 617 million youth worldwide lack basic mathematics and literacy skills;
- Over 750 million adults, two thirds of them women, remained illiterate in 2016, with half of the global illiterate population living in South Asia, and a quarter living in sub-Saharan Africa;
- In low, and middle-income countries, children with disabilities were 19% less likely to achieve minimum proficiency in reading than those without disabilities;
- 4 million refugee children were out of school in 2017.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=235#h5p-19>*

## Why it Matters

Why should I care about ensuring a quality education for all? Education enables upward socioeconomic mobility and is a key to escaping poverty. Education helps reduce inequalities and reach gender equality and is crucial to fostering tolerance and more peaceful societies worldwide.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=235#h5p-33>*

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #4 – Quality Education. Note the targets and indicators chosen<sup>5</sup>.

### 4 QUALITY EDUCATION



#### Goal 4

**Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

**Canadian Ambition: Canadians have access to inclusive and quality education throughout their lives**

Targets		Indicators	
T4.1.1	No specific target	I4.1.1	High school completion rate  <b>Source:</b> Statistics Canada. Table 37-10-0170-01 High school completion rate by sex, age group and selected demographic characteristics
T4.2.1	No specific target	I4.2.1	Post-secondary education attainment rate  <b>Sources:</b> Statistics Canada. Table 37-10-0130-01 Educational attainment of the population aged 25 to 64, by age group and sex, Organisation for Economic Co-operation and Development (OECD), Canada, provinces and territories; Statistics Canada. Table 37-10-0117-01 Educational attainment in the population aged 25 to 64, off-reserve Aboriginal, non-Aboriginal and total population

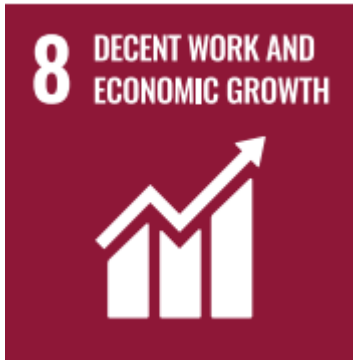
## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

5. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

# SDG #8 - DECENT WORK AND ECONOMIC GROWTH

---



## Video



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=239#oembed-1>*

## Analysis

Worldwide, the nature of work is changing. Labour markets are rapidly evolving due to globalization, new technologies, evolving business models (including digital) and shifting demographics<sup>1</sup>. Amid rapid change, economic prosperity and success will increasingly depend on developing innovative policies and programs to help all people access good quality jobs, decent wages, social protections, and create a culture of innovation, skills development and lifelong learning<sup>1</sup>. Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards<sup>2</sup>.

While Canada typically experiences strong economic growth with a historically low level of unemployment,

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

labour disparities remain especially for underrepresented groups including women, Indigenous Peoples, racialized peoples, people living with disabilities, LGBTQ2+ people, and others marginalized on the basis of their ethnicity and other identity factors<sup>1</sup>.

Even before the outbreak of COVID-19, 1 in 5 countries, amounting to billions of people living in poverty, were likely to see per capita incomes stagnate or decline in 2020.

## Fast Facts

- The global unemployment rate in 2017 was 5.6%, down from 6.4% in 2000;
- Globally, 61% of all workers were engaged in informal employment in 2016. Excluding the agricultural sector, 51% of all workers fell into this employment category;
- Men earn 12.5% more than women in 40 out of 45 countries with data;
- The global gender pay gap stands at 23% globally and without decisive action, it will take another 68 years to achieve equal pay;
- Women's labour force participation rate is 63% while that of men is 94%;
- Despite their increasing presence in public life, women continue to do 2.6 times the unpaid care and domestic work that men do.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=239#h5p-23>

## Why it Matters

Why should I care about decent work and economic growth for all? Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards.

Decent work means opportunities for everyone to get work that provides a fair income, provides a safe workplace, and prospects for personal development and social integration. A continued lack of decent work opportunities leads to an erosion of the basic social contract underlying democratic societies: that all must share in progress.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=239#h5p-37>*

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #8 – Decent Work and Economic Growth. Note the targets and indicators chosen<sup>3</sup>.

---

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

## 8 DECENT WORK AND ECONOMIC GROWTH



### Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

#### Canadian Ambition: Canadians have access to quality jobs

Targets		Indicators	
T8.1.1	No specific target	I8.1.1	Unemployment rate  <b>Sources:</b> Statistics Canada. Table 14-10-0327-01 Labour force characteristics by sex and detailed age group, annual; Statistics Canada. Table 14-10-0393-01 Labour force characteristics, annual
T8.2.1	No specific target	I8.2.1	Proportion of employees earning less than 66% of the median hourly wage for permanent full-time employees  <b>Source:</b> Statistics Canada. Custom tabulation
T8.3.1	No specific target	I8.3.1	Proportion of youth not in education, employment or training  <b>Source:</b> Statistics Canada. Table 37-10-0196-01 Percentage of 15-to 29-year-olds in education and not in education by labour force status, highest level of education attained, age group and sex
T8.4.1	No specific target	I8.4.1	Rate of involuntary part-time work  <b>Source:</b> Statistics Canada. Table 14-10-0029-01 Part-time employment by reason, annual (x 1,000)

#### Canadian Ambition: Canadians contribute to and benefit from sustainable economic growth

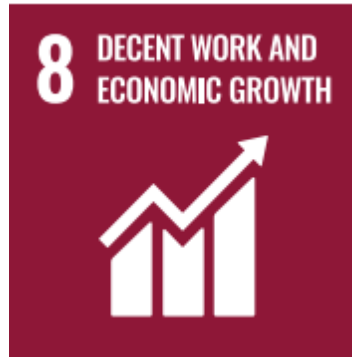
Targets		Indicators	
T8.5.1	No specific target	I8.5.1	Gross domestic product per capita  <b>Sources:</b> Statistics Canada. Table 36-10-0222-01 Gross domestic product, expenditure-based, provincial and territorial, annual (x 1,000,000); Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex
T8.6.1	No specific target	I8.6.1	Jobs in the clean technology products sector  <b>Sources:</b> Statistics Canada. Custom tabulation

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all.

# REFLECTION, COMPREHENSION, DISCUSSION

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdginintro/?p=255#h5p-52>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*

*online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=255#h5p-53>

## Discussion Questions

- Canada has one of the best education systems in the world with one of the highest rates of educated people within Canada's population. In fact, SDG #4 is the only Goal Canada is on track for<sup>1</sup>. What is the situation for your country for progress on SDG #4? Does it remain a challenge, if so, why? (tip: refer to Footnote 1 for help).
- What action(s) do you think you can personally take to advance progress on SDG #4 – Ensuring inclusive and equitable quality education.

---

1. Sustainable Development Solutions Network. (2020). Sustainable Development Report 2020, performance rankings for UN Member States.



# WEEK 7

## **Goal #9 – Industry, Innovation, and Infrastructure, Goal #11 – Sustainable Cities and Communities, Goal #12 – Responsible Consumption and Production**



This week we will be looking at SDG Goal #9 – Industry, Innovation, and Infrastructure, SDG Goal #11 – Sustainable Cities and Communities, and SDG Goal #12 – Responsible Consumption and Production; and how all three goals will inspire innovative solutions and resilient infrastructure to enable societies to produce and consume in a more sustainable way.



# SDG #9 - INDUSTRY, INNOVATION, AND INFRASTRUCTURE

---



## Video

In this 10-minute video made available from the SDG Academy, Jeffery Sachs looks at universal access to innovative and resilient infrastructure and it's importance in sustainable development.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=271#oembed-1>*

## Analysis

A healthy environment and a strong economy go hand-in-hand. Green infrastructure, including water and wastewater systems, clean energy, climate resilient and adaptive infrastructure protects the natural environment, strengthens the health of communities, supports economic growth, and improves the quality of life<sup>1</sup>.

Globally, labour forces face a rapidly changing economy that will have a profound impact on the nature of work and jobs of the future<sup>1</sup>. To be equipped for this change, there is a critical need for societies to rethink

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

approaches to learning, the way they conduct work, and training approaches<sup>1</sup>. Inclusive and sustainable industrialization, together with innovation and infrastructure, can unleash dynamic and competitive economic forces that generate employment and income. They play a key role in introducing and promoting new technologies, facilitating international trade, and enabling the efficient use of resources. However, the world still has a long way to go to fully realize this potential<sup>2</sup>. Least developed countries, in particular, need to accelerate the development of their manufacturing sector if they are to meet the 2030 target, and scale up investment in scientific research and innovation<sup>2</sup>.

Innovation and technological progress are key to finding lasting solutions to both economic and environmental challenges, such as increased resource and energy-efficiency. Globally, investments in research and development (R&D) as a proportion of gross national product (GDP) increased from 1.5% in 2000 to 1.7% in 2015 and remained almost unchanged in 2017. It was however, less than 1% in developing regions<sup>2</sup>.

In terms of communications infrastructure, more than half of the world's population is now online and almost the entire world population lives in an area covered by a mobile network<sup>2</sup>. It is estimated that in 2019, 96.5% of the world's population was covered by at least a 2G network<sup>2</sup>. For Canada, basic infrastructure that most Canadians take for granted are missing in many Indigenous communities<sup>1</sup>. In 2020, nearly 97% of Canada's population had internet access, 7% more than the global average<sup>23</sup>. However, of the over 1 million people in Canada that do not have internet access, more than 75% are Indigenous households<sup>3</sup>.

The coronavirus pandemic has revealed the urgent need for inclusive and resilient infrastructure. The Asian Development Bank notes that critical infrastructure in the region remains far from adequate in many countries, despite the rapid economic growth and development the region has experienced over the past decade. The Economic and Social Survey of Asia and the Pacific highlights that making infrastructure resilient to disasters and climate change will require an additional investment of \$434 billion per year<sup>2</sup>. This sum may need to be even greater in some subregions, such as the Pacific small island developing states.

## Fast Facts

- In 2018, 96% of the world's population lived within reach of a mobile-cellular signal, and 90% of people could access the Internet through a third generation (3G) or higher-quality network;

2. United Nations. (2021). Sustainable Development Goals.

3. RBC. (2021). Thought Leadership: Building Bandwidth

- 16% of the global population does not have access to mobile broadband networks;
- The global share of manufacturing value added in GDP increased from 15.2% in 2005 to 16.3% in 2017, driven by the fast growth of manufacturing in Asia;
- Least developed countries have immense potential for industrialization in food and beverages (agro-industry), textiles and garments, with good prospects for sustained employment generation and higher productivity;
- In 2019, the amount of new renewable power capacity (excluding large hydro) was the highest ever, at 184 gigawatts, 20GW more than in 2018. This included 118GW of new solar systems, and 61GW of wind turbines;
- Capacity investment in solar slipped 3% to \$131.1 billion in 2019, while wind climbed 6% to \$138.2 billion, the first time that wind has outweighed solar in terms of dollars committed since 2010;
- Developing countries continued to outpace developed economies in renewables investment. In 2019, they committed \$152.2 billion, compared to \$130 billion for developed countries.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=271#h5p-24>

## Why it Matters

Why should I care about ensuring innovative and resilient industry and infrastructure for all?

Inclusive and sustainable industrialization, together with innovation and infrastructure, can stimulate competitive economic forces that generate employment and income. The price of inaction is steep. Ending poverty would be more difficult, given the industry's role as a core driver of the global development agenda to eradicate poverty and advance sustainable development. Failing to improve infrastructure and promote technological innovation could translate into poor health care, inadequate sanitation, and limited access to education.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=271#h5p-38>*

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #9 – Industry, Innovation, and Infrastructure. Note the targets and indicators chosen<sup>4</sup>.

---

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021

## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



### Goal 9

### Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

#### Canadian Ambition: Canada fosters sustainable research and innovation

Targets		Indicators	
T9.1.1	No specific target	I9.1.1	Proportion of innovation in environment-related technology  <b>Source:</b> OECD. Patent Database, derived from EPO's Worldwide Patent Statistical database
T9.2.1	No specific target	I9.2.1	Gross domestic expenditure on research and development intensity  <b>Source:</b> Statistics Canada. Table 27-10-0359-01 Total domestic expenditures on research and development (R&D) as percentage of gross domestic product (GDP), Canada and provinces, and G-7 countries

#### Canadian Ambition: Canadians have access to modern and sustainable infrastructure

Targets		Indicators	
T9.3.1	By 2026, 98% Canadian homes and small businesses have access to Internet at speeds of 50 Mbps download / 10 Mbps upload, with the goal of connecting all Canadians to these speeds by 2030	I9.3.1	Proportion of households that have access to broadband Internet service at speeds of 50/10 Mbps  <b>Source:</b> Canadian Radio-television and Telecommunications Commission. Communications Monitoring Report
T9.4.1	Improved access to the latest mobile wireless services	I9.4.1	Proportion of Canadians that have access to the latest generally deployed mobile wireless technology  <b>Source:</b> Canadian Radio-television and Telecommunications Commission. Communications Monitoring Report
T9.5.1	No specific target	I9.5.1	Greenhouse gas emissions per dollar of value-added from the production of infrastructure assets  <b>Source:</b> Statistics Canada. Custom tabulation
T9.6.1	By March 31, 2024, a total of 1,000 EV Chargers, 22 natural gas stations, and 15 hydrogen stations along major highways, freight corridors and key metropolitan centres are under development and completed	I9.6.1	Number of low carbon recharging and refueling stations under development and completed along major highways, and in rural and urban areas across Canada  <b>Source:</b> Natural Resources Canada. Custom tabulation
T9.7.1	By March 31, 2026, 20,000 chargers in public places, on-street, at apartment buildings, retail outlets, and the workplace are under development and completed	I9.7.1	Number of low carbon recharging and refueling stations under development and completed in public places, on-street, at apartment buildings, retail outlets, and the workplace  <b>Source:</b> Natural Resources Canada. Custom tabulation

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.



# SDG #11 - SUSTAINABLE CITIES AND COMMUNITIES

---



## Video

In this 11-minute video made available from the SDG Academy, Jeffrey Sachs provides an overview of the importance of cities, the challenges they bring, and the work required to achieve sustainable development for urban areas.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=277#oembed-1>*

## Analysis

Cities are vital contributors to prosperity and people's standard of living<sup>1</sup>. The world is becoming increasingly urbanized. Since 2007, more than half the world's population has been living in cities, which is projected to rise to 60% by 2030 (2). Cities and metropolitan areas are powerhouses of economic growth, contributing about 60% of global GDP. They are places where dynamic economic, cultural, and social exchanges converge

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

to support economic performance and social progress<sup>1</sup>. However, they also account for about 70% of global carbon emissions and over 60% of resource use.

Cities are key engines for the growing knowledge economy. Rapid urbanization is resulting in a growing number of slums globally, with inadequate and overburdened infrastructure and services (such as waste collection and water and sanitation systems, roads, and transport), worsening air pollution and unplanned urban sprawl<sup>2</sup>. Decision makers need to plan for economic growth in this competitive environment, while at the same time ensuring their communities are safe and livable, provide opportunities and a positive quality of life for diverse, growing populations. They will need to manage a built environment that is under continual pressure to grow and improve while addressing the pressing issues of climate change and environmental sustainability.

In Canada, more than 82% of the population live in cities and their surrounding metropolitan areas. Canadian cities are competing globally for people, technological leadership and capital investment, however, Canadians are among the highest per capita carbon emitters countries in the world<sup>3</sup>.

The impact of COVID-19 will be most devastating in poor and densely populated urban areas, especially for the one billion people living in informal settlements and slums worldwide, where overcrowding also makes it difficult to follow recommended measures such as social distancing and self-isolation<sup>2</sup>. The UN food agency warned that hunger and fatalities could rise significantly in urban areas, without measures to ensure that poor and vulnerable residents have access to food<sup>2</sup>.

## Fast Facts

- Half of all humanity, 3.5 billion people live in cities today, with 5 billion people projected to live in cities by 2030;
- The world's cities occupy just 3% of the Earth's land, but account for 60-80% of energy consumption and generate 75% of human-induced greenhouse gas including carbon emissions;
- Rapid urbanization is exerting pressure on fresh water supplies, sewage, the living environment, and public health;
- 95% of urban expansion in the next decades will take place in developing regions;
- 828 million people (14% of global population) live in slums, and most of them are found in

2. United Nations. (2021). Sustainable Development Goals.

3. Hot or Cool Institute. (2021). The 1.5-Degree Lifestyles: Towards A Fair Consumption Space for All.

Eastern and South-Eastern Asia;

- 90% of urban growth is forecasted to happen in Asia and Africa in the next 30 years;
- By 2050, 70% of the world population is predicted to live in urban settlements.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=277#h5p-26>

## Why it Matters

Why should I care about Sustainable cities and communities?

Over 4 billion people, half of the global population, living in the world's cities face worsening air pollution, and inadequate infrastructure and services. This situation is true for developed and developing countries, with these issues affecting all global citizens. Pollution deteriorates everyone's health and affects economic productivity and therefore all economies.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=277#h5p-40>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #11 – Sustainable Cities and Communities. Note the targets and indicators chosen<sup>4</sup>.

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.

## 11 SUSTAINABLE CITIES AND COMMUNITIES



### Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable

#### Canadian Ambition: Canadians have access to quality housing

Targets		Indicators	
T11.1.1	Reduce chronic homelessness by at least 31% by March 2024	I11.1.1	Growth rate of people experiencing chronic homelessness  <b>Source:</b> Employment and Social Development Canada. Custom tabulation
T11.2.1	No specific target	I11.2.1	Proportion of households in core housing need  <b>Source:</b> Statistics Canada. Table 46-10-0046-01 Households living with housing problems, by selected housing-vulnerable populations and core housing need including adequacy, affordability and suitability standards

#### Canadian Ambition: Canadians live in healthy, accessible, and sustainable cities and communities

Targets		Indicators	
T11.3.1	Increase the percentage of Canadians living in areas where air pollutants concentrations are less or equal to the standards from 60% in 2005 to 85% in 2030	I11.3.1	Percentage of the population living in areas where air pollutants concentrations are less or equal to the 2020 Canadian Ambient Air Quality Standards  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Population exposure to outdoor air pollutants" <b>Sources:</b> Environment and Climate Change Canada. Air Quality Research Division; Health Canada. Air Health Effects Assessment Division
T11.4.1	No specific target	I11.4.1	Percentage of the population living within 500 meters of a public transport stop  <b>Source:</b> Statistics Canada. Table 23-10-0286-01 Proximity to Public Transportation in Canada's Metropolitan Cities, and related Commuting Data
T11.5.1	By 2030, 22% of commuters adopt shared or active transportation	I11.5.1	Percentage of the population using shared or active transportation for commuting  <b>Source:</b> Statistics Canada. Table 23-10-0286-01 Proximity to Public Transportation in Canada's Metropolitan Cities, and related Commuting Data
T11.6.1	No specific target	I11.6.1	Total waste disposal per capita  <b>Sources:</b> Statistics Canada. Table 38-10-0032-01 Disposal of waste, by source; Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex
T11.7.1	No specific target	I11.7.1	Percentage of the population aged 12 and over who reported their sense of belonging to their local community as being very strong or somewhat strong  <b>Source:</b> Statistics Canada. Table 13-10-0096-01 Health characteristics, annual estimates

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Make cities and human settlements inclusive, safe, resilient, and sustainable.

# SDG #12 - RESPONSIBLE CONSUMPTION AND PRODUCTION

---



## Video

In this 10-minute video made available from the SDG Academy, Jeffrey Sachs looks at the challenges and opportunities of oil, gas, and mining in the context of responsible consumption and production for a sustainable future.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=279#oembed-1>*

## Analysis

In many countries, household consumption has been the main driver of economic growth<sup>1</sup>.

Worldwide, consumption and production are the driving force of global economies and heavily rely on the use of the natural resources and the environment and in a way that continues to have destructive impacts on the planet<sup>2</sup>. Economic and social progress over the last century has been accompanied by environmental

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

degradation that is endangering the very systems on which our future development and indeed, our very survival depends<sup>2</sup>. According to the latest projections, the global population could grow to 8.5 billion in 2030, and 9.7 billion in 2050. The equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.

To promote responsible consumption and production, economic growth must align with existing resource volatility and shifting consumer preferences for safer, renewable, and more sustainable natural resources and products. Education is one of the most powerful tools for providing individuals with the appropriate skills and competencies to become sustainable consumers<sup>1</sup>.

The COVID-19 pandemic offers countries an opportunity to build recovery plans that will reverse current trends and change our consumption and production patterns towards a more sustainable future<sup>2</sup>. Sustainable consumption and production is about doing better with less. It is also about decoupling economic growth from environmental degradation, increasing resource efficiency, and promoting sustainable lifestyles. Sustainable consumption and production can also contribute substantially to poverty alleviation and the transition towards low-carbon and green economies.

## Fast Facts

### Water

- Humanity relies on less than 1% of all water on Earth to meet drinking water needs. This is because less than 3% of the world's water is fresh (potentially drinkable), of which 2.5% is frozen in the Antarctica, Arctic, and glaciers;
- Although water is provided at no cost from nature, the infrastructure needed to extract, clean, and deliver it is expensive;
- More than 1 billion people still do not have access to fresh water;
- Three out of ten people (2.1 billion people, or 29% cent of the global population) were not using a safely managed drinking water service in 2015, whereas 844 million people still lacked even a basic drinking water service;
- Agriculture (including irrigation, livestock, and aquaculture) is the largest water consumer, accounting for 69% of annual water withdrawals globally;
- Water use has been increasing worldwide by about 1% per year since the 1980s;
- Humans are polluting water in rivers and lakes faster than nature can recycle and purify;
- Industry (including power generation) accounts for 19% and households for 12%;
- Excessive water use contributes to the global water shortages (stress);

- Over 2 billion people live in countries experiencing high water stress;

## Energy

- Commercial and residential energy use is the second most rapidly growing area of global energy use after transport;
- Households consume 29% of global energy and contribute to 21% of resultant CO<sub>2</sub> emissions;  
The global electrification rate reached 89% in 2017 (from 83% in 2010), still leaving about 840 million people without access;
- If people worldwide switched to energy efficient lightbulbs, the world would save US\$120 billion annually;
- The share of renewable energy in total energy consumption has reached 17.5% in 2015;
- By the end of 2015 there were over 1 billion cars worldwide, with the number of vehicles continuing to grow;
- Between 2010 and 2017, the percentage of the population relying on clean cooking solutions grew by an annual average of 0.5% points;

## Food

- The food sector accounts for 30% of the world's total energy consumption and accounts for 22% of total Greenhouse Gas emissions;
- Each year, an estimated one third of all food produced goes to waste. This is equivalent to 1.3 billion tonnes of food, worth 1 trillion dollars that ends up getting thrown out, rotting in the bins of consumers and retailers, or spoiling due to poor transportation and harvesting practices;
- 144 million children under age 5 were affected by stunting in 2019, while 38 million children under the age of 5 were overweight or obese that same year;
- Land degradation, declining soil fertility, unsustainable water use, overfishing and marine degradation are all lessening the ability of the natural resource base to supply food.



*An interactive H5P element has been excluded from this version of the text. You can view it*





online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=279#h5p-27>

## Why it Matters

Why should I care about responsible consumption and production?

Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future survival depends. These current patterns of production and consumption must be changed for our own welfare and that of future generations. Human health and the environment are intrinsically linked, yet we carry on as business as usual, guided by unrealistic notions of infinite economic development and growth that ignores the reality that we live on a planet with finite resources



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=279#h5p-41>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #12 – Responsible Consumption and Production. Note the targets and indicators chosen<sup>3</sup>.

---

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021.



## Goal 12

### Ensure sustainable consumption and production patterns

#### Canadian Ambition: Canadians consume in a sustainable manner

Targets		Indicators	
T12.1.1	Zero-emission vehicles represent 10% of new light duty vehicle sales by 2025, 30% by 2030 and 100% by 2040	I12.1.1	Proportion of new light duty vehicle registrations that are zero-emission vehicles  <b>Source:</b> Statistics Canada. Table 20-10-0021-01 New motor vehicle registrations
T12.2.1	No specific target	I12.2.1	Proportion of businesses that adopted selected environmental protection activities and management practices  <b>Sources:</b> Statistics Canada. Table 38-10-0132-01 Environmental protection activities by industry; Statistics Canada. Table 38-10-0137-01 Environmental Management Practices by industry
T12.3.1	No specific target	I12.3.1	Total waste diversion per capita  <b>Sources:</b> Statistics Canada. Table 38-10-0138-01 Waste materials diverted, by type and by source; Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Ensure sustainable consumption and production patterns.

# REFLECTION, COMPREHENSION, DISCUSSION, VIDEOS

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdginintro/?p=257#h5p-55>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*

online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=257#h5p-56>

## Discussion Questions

- In the analysis section for SDG #9 – Industry, Innovation, and Infrastructure, it was mentioned that least developed countries, in particular, need to accelerate the development of their manufacturing sector and scale up investment in scientific research and innovation if they are to meet the 2030 target. Do you agree with this statement? Why or why not?
- Over half of all humanity now live in urban areas. What are the associated implications?

## Optional Videos

SDG #9: Technology and innovation – key innovations needed for a sustainable future



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=257#oembed-1>

SDG #11: What makes a city sustainable?



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=257#oembed-2>

SDG #11: Cities as hubs of knowledge



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=257#oembed-3>*



# WEEK 8

## Goal #13 – Climate Action, Goal #14 – Life Below Water, Goal #15 – Life on Land



This week we will be looking at SDG Goal #13 – Climate Action, SDG Goal #14 – Life Below Water, and SDG Goal #15 – Life on Land; and how all three goals will work towards the protection of human and non-human life by combating climate change and safeguarding oceans and terrestrial habitats including inland surface water.





# SDG #13 - CLIMATE ACTION

---



## Video

In this 17-minute video made available from the SDG Academy, Jeffery Sachs focuses on the consequences of climate change, and the dangers of not significantly reducing human CO2 emissions.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=281#oembed-1>*

## Analysis

Earlier in the course we learned the concept of sustainable development was adopted as a shared global concept at the UN 1992 Conference on Environment and Development, commonly known as the Rio Earth Summit. During this conference, three major multilateral environmental agreements were also adopted; the UN Framework Convention on Climate Change, the UN Convention on Biological Diversity, and the UN Convention on Desertification to stop the spread of deserts in the dryland regions of the world.

Twenty years later in 2012, the UN Member States meet again in Rio at the now referred to Rio +20 conference. This 20th anniversary of the Earth Summit brought the realization that the concept of sustainable development had not progressed, and the three environmental agreements on climate, biodiversity, and combating deserts were not being implemented.

The outcomes of the Rio+20 conference saw the mobilization of sustainable development through Agenda

2030, and was the catalyst for the December 12, 2015, signing of the Paris Climate Agreement. The Paris Agreement is centred on SDG #13 and provides a mechanism to implement the UN Framework Convention on Climate Change in a serious way. The Agreement is bound together with the 17 Sustainable Development Goals to stop global warming and human induced climate change.

Climate change is one of the most pressing challenges facing humanity today. The science is conclusive, swift action is needed to reduce greenhouse gases, enhance climate resilience, and protect our natural environment<sup>1</sup>. Carbon dioxide (CO<sub>2</sub>) levels and other greenhouse gases in the atmosphere rose to new records in 2019, with 2010 – 2019 on record as the warmest decade ever recorded<sup>2</sup>. Climate change is affecting every country on every continent. It is disrupting national economies and affecting lives. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme<sup>2</sup>.

Recently we discussed Canadians have one of the highest per capita greenhouse gas emissions globally. When looking at carbon production, or carbon footprints, Canadians also have one of the highest per capita (personal) carbon footprints globally, with particularly high levels for personal transportation, meat consumption, and housing<sup>3</sup>.

Urgent action is needed to address the climate emergency. The Paris Agreement aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. The agreement also aims to strengthen the ability of countries to deal with the impacts of climate change through appropriate financial flows, technology, and enhanced capacity building including with the Intergovernmental Panel on Climate Change (IPCC). The IPCC is the leading body for the assessment of climate change, established by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) in 1988, with a mandate to provide internationally coordinated scientific assessments of the magnitude, timing, and potential environmental and socio-economic impact of climate change and realistic response strategies.

## Fast Facts

- As of December 2021, 195 countries have joined the Paris Agreement;
- Developed country parties continue to make progress towards the goal of jointly mobilizing \$100 billion annually for mitigation actions.

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

3. Hot or Cool Institute. (2021). The 1.5-Degree Lifestyles: Towards A Fair Consumption Space for All.

- The Intergovernmental Panel on Climate Change

### From the Intergovernmental Panel on Climate Change we know:

- From 1880 to 2012, average global temperature increased by 0.85°C. To put this into perspective, for each 1 degree of temperature increase, grain yields decline by about 5%. Maize, wheat and other major crops have experienced significant yield reductions at the global level of 40 megatons per year between 1981 and 2002 due to a warmer climate;
- Oceans have warmed, the amounts of snow and ice have diminished, and sea level has risen. From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and ice melt;
- The Arctic's sea ice extent has shrunk in every successive decade since 1979, with 1.07 million km<sup>2</sup> of ice loss every decade;
- Given current concentrations and on-going emissions of greenhouse gases, it is likely that by the end of this century, the increase in global temperature will exceed 1.5°C. Average sea level rise is predicted as 24 – 30cm by 2065 and 40-63cm by 2100. Most aspects of climate change will persist for many centuries even if emissions are stopped;
- Global emissions of carbon dioxide (CO<sub>2</sub>) have increased by almost 50% since 1990;
- Emissions grew more quickly between 2000 and 2010 than in each of the three previous decades;
- It is still possible, using a wide array of technological measures and changes in behavior, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels, but this window is rapidly closing;
- Major institutional, technological, and behavioural change will be required for global warming to not exceed this threshold.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=281#h5p-28>

## Why it Matters

Why should I care about taking urgent action to combat climate change and its impacts?

The 2010-2019 decade was the warmest ever recorded, bringing with it massive wildfires, hurricanes, droughts, floods, and other climate disasters across all continents. Climate change is affecting every country in the world. It is disrupting national economies and affecting lives and livelihoods, especially for the most vulnerable. Climate change puts the whole world under pressure, everywhere, at the same time.



*An interactive HSP element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=281#h5p-42>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #13 – Climate Action. Note the targets and indicators chosen<sup>4</sup>.

---

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021

# 13 CLIMATE ACTION



## Goal 13

### Take urgent action to combat climate change and its impacts

#### Canadian Ambition: Canadians reduce their greenhouse gas emissions

Target	Indicator
T13.1.1 By 2030, reduce Canada's total greenhouse gas emissions by 40 to 45%, relative to 2005 emission levels. By 2050, achieve economy-wide net-zero greenhouse gas emissions.	I13.1.1 Greenhouse gas emissions  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Greenhouse gas emissions" <b>Source:</b> Environment and Climate Change Canada's National Inventory Report 1990-2019: Greenhouse Gas Sources and Sinks in Canada

#### Canadian Ambition: Canadians are well-equipped and resilient to face the effects of climate change

Targets	Indicators
T13.2.1 No specific target	I13.2.1 Frequency of selected natural disasters  <b>Source:</b> Public Safety Canada. Canadian Disaster Database
T13.3.1 No specific target	I13.3.1 Proportion of municipal organizations who factored climate change adaptation into decision-making processes  <b>Sources:</b> Statistics Canada. Table 34-10-0277-01 Count of municipal organizations who factored climate change adaptation into decision-making process, by core infrastructure assets, by urban and rural, and population size, Infrastructure Canada; Statistics Canada. Table 34-10-0261-01 Municipal ownership of core infrastructure assets, by urban and rural, and population size, Infrastructure Canada

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Take urgent action to combat climate change and its impacts.

# SDG #14 - LIFE BELOW WATER

---



## Video

In this 21-minute video made available from the SDG Academy, Jeffrey Sachs looks at human interactions with oceans and aquaculture, and the adverse effect it has had on marine ecosystems and well as fisheries.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=283#oembed-1>*

## Analysis

### Analysis

Healthy and resilient oceans help to mitigate the effects of climate change, provide food security to millions of people around the world and drive economic activity through marine trade and transport<sup>1</sup>. The ocean drives global systems that make the Earth habitable for humankind. Our rainwater, drinking water, weather, climate, coastlines, much of our food, and even the oxygen in the air we breathe, are all ultimately provided and regulated by the ocean<sup>2</sup>.

Rising sea levels, ocean acidification and thinning sea ice are affecting vulnerable regions, and coastal

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

communities. Careful management of this essential global resource is a key feature of a sustainable future. However, at the current time, there is a continuous deterioration of coastal waters owing to pollution, and ocean acidification is having an adversarial effect on the functioning of ecosystems and biodiversity<sup>2</sup>. This is also negatively impacting small scale fisheries.

Canada has the world's longest coastline, it borders the Pacific, Atlantic and Arctic oceans, and forms the one of the largest ocean bodies of any country in the world<sup>1</sup>. Coastal waters are deteriorating globally due to pollution and eutrophication. Roughly 80% of marine and coastal pollution originates from land, including agricultural run-off, pesticides, plastics, and untreated sewage<sup>2</sup>. In 2021, approximately 14% of Canada's ocean was protected with government commitments to protecting 25% by 2025 and 30% by 2030<sup>3</sup>.

Saving our ocean must remain a priority. Marine biodiversity is critical to the health of people and our planet<sup>2</sup>. Marine protected areas need to be effectively managed and well-resourced, and regulations need to be put in place to reduce overfishing, marine pollution, and ocean acidification.

## Fast Facts

- Oceans cover three quarters of the Earth's surface, contain 97% of the Earth's water, and represent 99% of the living space on the planet by volume;
- Oceans produces over half of the world's oxygen and absorbs 50 times more carbon dioxide than our atmosphere;
- Oceans transports heat from the equator to the poles, regulating our climate and weather patterns.

## Climate change

- Oceans absorb 30% of carbon dioxide produced by humans, buffering the impacts of global warming;
- Carbon emissions from human activities are causing ocean warming, acidification and oxygen loss;
- Ocean heat is at record levels, causing widespread marine heatwaves.

---

3. Canadian Parks and Wilderness Society. (2021). Assessing Canada's Marine Protected Areas.

## Ocean and people

- Over 3 billion people depend on marine and coastal biodiversity for their livelihoods;
- Globally, the market value of marine and coastal resources and industries is estimated at \$3 trillion per year or about 5% of global GDP;
- Marine fisheries directly or indirectly employ over 200 million people;
- Without concerted efforts, coastal eutrophication is expected to increase in 20% of large marine ecosystems by 2050;
- Plastic constitutes 90 percent of all of the trash floating on the ocean's surface – approximately 46,000 pieces of plastic per square mile;
- Globally, one million plastic drinking bottles are purchased every minute, while up to 5 trillion single-use plastic bags are used worldwide every year;
- Approximately 680 million people live in low-lying coastal zones, that is expected to increase to a billion by 2050;
- Approximately 80% of the volume of international 'goods' trade is carried by sea, and the percentage is even higher for most developing countries;
- Sustainable and climate-resilient transport, including maritime transport, is key to sustainable development.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=283#h5p-29>*

## Why it Matters

Why should I care about the conservation and sustainable use of oceans, seas, and marine resources?

Oceans are the planet's life support system. Phytoplankton, the tiny plant-like organisms (actually marine algae) that live in oceans are responsible for at least 50% of the oxygen on Earth. They are also the base of marine food webs. If phytoplankton were to diminish, the livelihood of all marine life and the 3+ billion people who rely on oceans for survival would be in great jeopardy.





An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=283#h5p-43>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #14 – Life Below Water. Note the targets and indicators chosen<sup>4</sup>.

**14** LIFE  
BELOW WATER



### Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Canadian Ambition: Canada protects and conserves marine areas and sustainably manages ocean fish stocks**

Targets		Indicators	
T14.1.1	Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030	I14.1.1	Proportion of marine and coastal areas conserved  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Canada's conserved areas" <b>Source:</b> Environment and Climate Change Canada. Canadian Protected and Conserved Areas Database
T14.2.1	By 2023, major fish and invertebrate stocks are managed and harvested at levels considered to be sustainable, from a baseline of 96% in 2016	I14.2.1	Proportion of fish stocks that are sustainably harvested  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Sustainable fish harvest" <b>Source:</b> Fisheries and Oceans Canada. Sustainability Survey for Fisheries

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

4. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021

# SDG #15 - LIFE ON LAND

---



## Video

In this 24-minute video made available from the SDG Academy, Jeffrey Sachs looks at biodiversity as an integral part of ecosystems functioning and explores why biodiversity is being threatened today.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=285#oembed-1>*

## Analysis

Sustainable management of lands and forests, including through conservation and protected areas, is key to maintaining healthy ecosystems and ensuring their benefits, including filtering air and water, and storing carbon dioxide<sup>1</sup>.

Nature is critical to our survival. Nature provides us with our oxygen, regulates our weather patterns, pollinates our crops, produces our food, feed, and fibre. But it is under increasing stress. Human activity has altered almost 75% of the earth's surface, squeezing wildlife and nature into an ever-smaller corners of the planet<sup>2</sup>.

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

2. United Nations. (2021). Sustainable Development Goals.

Around 1 million animal and plant species are threatened with extinction, many within decades according to the 2019 Global Assessment Report on Biodiversity and Ecosystem Service. The report called for transformative changes to restore and protect nature. It found that the health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever, affecting the very foundations of our economies, livelihoods, food security, health, and quality of life worldwide<sup>2</sup>.

Deforestation and desertification, caused by human activities and climate change, pose major challenges to sustainable development, and have affected the lives and livelihoods of millions of people. Forests are vitally important for sustaining life on Earth and play a major role in the fight against climate change<sup>2</sup>. And investing in land restoration is critical for improving livelihoods, reducing vulnerabilities, and reducing risks for the economy.

The health of our planet also plays an important role in the emergence of zoonotic diseases, i.e. diseases that are transmissible between animals and humans. As we continue to encroach on fragile ecosystems, we bring humans into ever-greater contact with wildlife, enabling pathogens in wildlife to spill over to livestock and humans, increasing the risk of disease emergence and amplification<sup>2</sup>.

## Fast Facts

- Human activity has altered 75% of the earth's surface, forcing wildlife and nature into an ever-smaller corner of the planet and increasing risks of zoonotic diseases including COVID-19.

### Forests

- Approximately 1.6 billion people depend on forests for their livelihood, including 70 million indigenous people;
- Forests are home to more than 80% of all terrestrial species of animals, plants, and insects;
- Between 2010 and 2015, the world lost 3.3 million hectares of forest areas;
- Currently, land degradation has reduced productivity in 23% of the global terrestrial areas, and between \$235 billion and \$577 billion in annual global crop output is at risk as a result of pollinator loss.

### Desertification

- Arable land loss is estimated at 30 to 35 times the historical rate;

- Due to drought and desertification, 12 million hectares are lost each year (23 hectares per minute). That's the equivalent of 20 million tons of lost grain per year;
- Over 74% of those living in poverty are directly affected by land degradation globally;
- Habitat loss and deterioration, largely caused by human actions, have reduced global terrestrial habitat integrity by 30%.

## Biodiversity

- Illicit poaching and trafficking of wildlife continue to stall conservation efforts, with 7,000 species of plants and animals reported in illegal trade involving 120 countries;
- Of the 8,300 animal breeds known, 8% are extinct and 22% are at risk of extinction;
- Fish provide 20% of animal protein to about 3 billion people;
- Over 80% of the human diet is provided by plants, with 3 cereal crops: rice, maize and wheat providing 60% of energy intake;
- Approximately 80% of people living in developing countries rural areas rely on traditional plant-based medicines for basic healthcare;
- Micro-organisms and invertebrates are key to ecosystem services, but their contributions are still poorly known and rarely acknowledged;
- While protected areas now cover 15% of terrestrial and freshwater environments and 7% of marine systems, they only partly cover important sites for biodiversity and are not yet fully ecologically representative and effectively or equitably managed.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=285#h5p-30>*

## Why it Matters

Why should I care about the protection, restoration, and sustainable use of terrestrial ecosystems?

Globally, one fifth of the Earth's land area (more than 2 billion hectares) are degraded. Land degradation is

undermining the well-being of some 3.2 billion people, driving species to extinction and intensifying climate change. Currently, biodiversity is declining faster than at any other time in human history.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=285#h5p-44>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #15 – Life on Land. Note the targets and indicators chosen<sup>3</sup>.

---

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021



## 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

### Canadian Ambition: Canada ensures all species have healthy and viable populations

Targets	Indicators
T15.1.1 No specific target	I15.1.1 Proportion of native wild species ranked secure or apparently secure according to the national extinction risk level  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Status of wild species" <b>Source:</b> Canadian Endangered Species Conservation Council (2016) Wild Species 2015: The General Status of Species in Canada, National General Status Working Group
T15.2.1 No specific target	I15.2.1 Proportion of species at risk showing progress towards their population and distribution objectives  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Species at risk population trends" <b>Sources:</b> Environment and Climate Change Canada; Fisheries and Oceans Canada; Parks Canada; Committee on the Status of Endangered Wildlife in Canada Secretariat

### Canadian Ambition: Canada conserves and restores ecosystems and habitat

Target	Indicator
T15.3.1 Conserve 25% of Canada's land by 2025, working towards 30% by 2030	I15.3.1 Proportion of terrestrial (land and freshwater) areas conserved  <b>Note:</b> corresponds to the Canadian Environmental Sustainability Indicators "Canada's conserved areas" <b>Source:</b> Environment and Climate Change Canada. Canadian Protected and Conserved Areas Database

### Canadian Ambition: Canada sustainably manages forests, lakes and rivers

Targets	Indicators
T15.4.1 No specific target	I15.4.1 Proportion of the forest area under an independently verified forest management certification scheme  <b>Sources:</b> Forest Products Association of Canada; Canada's National Forest Inventory
T15.5.1 No specific target	I15.5.1 Forest area as a proportion of total land area  <b>Source:</b> Canada's National Forest Inventory

## Recommended Readings

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem

services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

# REFLECTION, COMPREHENSION, DISCUSSION

---



## Exercise



*An interactive HSP element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=259#h5p-57>*

## Comprehension Questions



*An interactive HSP element has been excluded from this version of the text. You can view it*



*online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=259#h5p-62>

# CARBON FOOTPRINT ASSIGNMENT

---

Canadians are one of the largest Green House Gas (GHG) producers per capita and also have one of the largest personal carbon footprints worldwide. Understanding your individual carbon impacts is important; not only for realizing your individual contribution to the global climate crisis, but for also developing meaningful individual and community level carbon reduction and management strategies.

Generally, carbon is broken down into the following four categories

- Transportation
- Heating and cooling homes
- Food
- Goods and services (your stuff)

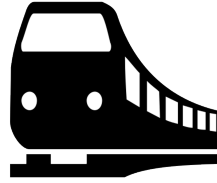
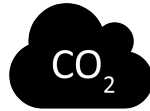
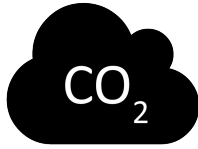
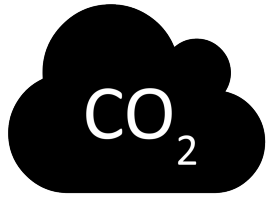
1. Using a carbon footprint calculator, calculate your personal carbon footprint. We recommend <https://www.carbonindependent.org/>, but you can use a carbon footprint generator of your choice, just be sure to cite it in your report.
2. Outline your footprint by category (energy use, travel, food, etc.) in your report and compare it to the global situation by country.
3. What changes could you make in your daily life to reduce your carbon footprint by 5%, 10%, and 25%?
4. Did anything about generating your personal carbon footprint surprise you? Explain.

**Note 1:** for calculating reductions using a 5% CO<sub>2</sub> reduction as an example, you would take your calculated footprint and figure out what 5% would be. If your carbon footprint is 10 t CO<sub>2</sub>, then a 5% reduction would be .5 t CO<sub>2</sub>. You will then explain how you would reduce your carbon footprint by .5 t / year. You will then do the same for 10% and 25% reduction. This will not be guess-work, use your carbon calculator to change some of your parameters to find the reduction. For example, using public transport instead of driving, eating more local food, etc.

**Note 2:** Some of the good examples of carbon calculators studied are Carbon Footprint Ltd., Carbon Independent, and Cool Climate Network. Carbon Independent and WWF have a broader range of actions to let you see where you can make changes (i.e. eat less meat) and the corresponding carbon reduction<sup>1</sup>.

---

1. Mulrow, J., Machaj, K., Deanes, J., & Derrible, S. (2019). The state of carbon footprint calculators: An evaluation of calculator design and user interaction features. *Sustainable Production and Consumption*, 18, 33-40. doi:10.1016/j.spc.2018.12.001





# WEEK 9

## Goal #16 – Peace, Justice, and Strong Institutions, Goal #17 – Partnerships for Goals



This week we will be looking at SDG Goal #16 – Peace, Justice, and Strong Institutions and SDG Goal #17 – Partnerships for the Goals, and how these two goals together serve as an overarching framework for collaboration between all society partners and stakeholders to create a world of peace and justice for all.



# SDG #16 - PEACE, JUSTICE, AND STRONG INSTITUTIONS

---



## Video

In this 11-minute video made available from the SDG Academy, Jeffery Sachs looks at lessons learned from Syria in achieving lasting peace, the underlying conditions needed for peace and how we can invest in peace.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdginintro/?p=287#oembed-1>*

## Analysis

Ensuring peace, justice and strong institutions are prerequisites to sustainable development<sup>1</sup>. In line with the integrated nature of the 2030 Agenda, SDG #16 has strong links to all Goals. In total, 36 of the 169 SDG targets directly measure an aspect of peace, inclusion, or access to justice, with only one third of these actually found in SDG #16.

Conflict, insecurity, weak institutions, and limited access to justice remain a great threat to sustainable development. The number of people fleeing war, persecution and conflict exceeded 70 million in 2018, the

---

1. Global Affairs Canada. (2018). Canada's Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

highest level recorded by the UN refugee agency in almost 70 years<sup>2</sup>. In 2019, the United Nations tracked 357 killings and 30 enforced disappearances of human rights defenders, journalists, and trade unionists in 47 countries<sup>2</sup>. The births of approximately one in four children under age 5 worldwide are never officially recorded, depriving them of a proof of legal identity crucial for the protection of their rights and for access to justice and social services<sup>2</sup>.

For Canada, democracy, inclusive and accountable governance, respect for diversity and human rights are core values shared by Canadians. While Canada is fundamentally a safe and peaceful country, threats and emergencies can arise in many different ways including through terrorism, organized crime, and natural disasters<sup>1</sup>. In Canada, there continue to be groups of people who experience discrimination, harassment, and violence. Historically excluded people and groups are significantly more likely to experience injustice<sup>1</sup>. Indigenous women and girls in Canada are disproportionately affected by all forms of violence from various factors including racism, sexism, the legacy of colonialism, and the devastation caused by the Indian Residential School system<sup>1</sup>.

Transparent and accountable institutions and organizations strengthen the fabric of society. Internationally, continued support is needed to establish and maintain peace and security, both for the safety of citizens and as a precondition for sustainable development.

## Fast Facts

- Among the institutions most affected by corruption are the judiciary and police;
- Corruption, bribery, theft, and tax evasion cost some US \$1.26 trillion for developing countries per year; this amount of money could be used to lift those who are living on less than \$1.25 a day above US\$1.90 for at least six years;
- Birth registration has occurred for 73% of children under 5, but only 46% of Sub-Saharan Africa have had their births registered;
- Approximately 28.5 million primary school age children and youth who are out of school live in conflict-affected areas;
- The rule of law and development have a significant interrelation and are mutually reinforcing, making it essential for sustainable development at the national and international level;

2. United Nations. (2021). Sustainable Development Goals.



- The proportion of prisoners held in detention without sentencing has remained almost constant in the last decade, at 31% of all prisoners.

## Violence against children

- Every 7 minutes, somewhere in the world, a child is killed by violence;
- 50% of the world's children experience violence every year;
- 1 in 10 children is sexually abused before the age of 18;
- 9 in 10 children live in countries where corporal punishment is not fully prohibited, leaving 732 million children without legal protection;
- 1 in 3 internet users worldwide is a child and 800 million of them use social media. Any child can become a victim of online violence;
- Child online sexual abuse reports to have grown from 1 million in 2014 to 45 million in 2018;
- 246 million children worldwide are affected by school-related violence each year;
- 1 in 3 students has been bullied by their peers at school in the last month, and at least 1 in 10 children have experienced cyberbullying;
- Violence against children affects more than 1 billion children around the world and costs societies up to US\$ 7 trillion a year;
- The number of people fleeing war, persecution and conflict exceeded 70 million in 2018, the highest level recorded by the UN refugee agency in almost 70 years;
- In 2019, the United Nations tracked 357 killings and 30 enforced disappearances of human rights defenders, journalists, and trade unionists in 47 countries.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=287#h5p-31>

## Why it Matters

Why should I care about peace, justice, and strong institutions?

Peace is essential to ensure a healthy and productive global population. In the absence of peace, it will be impossible to fully achieve the other SDGs.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=287#h5p-45>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #16 – Peace, Justice, and Strong Institutions. Note the targets and indicators chosen<sup>3</sup>.

---

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021



## 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**

### Canadian Ambition: Canadians are safe and secure, in person and online

Targets	Indicators
T16.1.1 No specific target	I16.1.1 Proportion of Canadians who reported feeling safe walking alone in their neighborhood after dark <b>Source:</b> Statistics Canada. Custom tabulation
T16.2.1 No specific target	I16.2.1 Crime severity index <b>Source:</b> Statistics Canada. Table 35-10-0026-01 Crime severity index and weighted clearance rates, Canada, provinces, territories and Census Metropolitan Areas
T16.3.1 No specific target	I16.3.1 Incidence of selected types of crime <b>Source:</b> Statistics Canada. Table 35-10-0177-01 Incident-based crime statistics, by detailed violations, Canada, provinces, territories and Census Metropolitan Areas
T16.4.1 No specific target	I16.4.1 Incidence of cybercrime <b>Source:</b> Statistics Canada. Table 35-10-0001-01 Police-reported cybercrime, by cyber-related violation, Canada (selected police services); Statistics Canada. Table 22-10-0076-01 Types of cyber security incidents that impact enterprises by industry and size of enterprise

### Canadian Ambition: Canadians have equal access to justice<sup>1</sup>

Targets	Indicators
T16.5.1 No specific target	I16.5.1 Criminal Court case completion time <b>Sources:</b> Statistics Canada. Table 35-10-0029-01 Adult criminal courts, cases by median elapsed time in days; Statistics Canada. Table 35-10-0040-01 Youth courts, cases by median elapsed time in days
T16.6.1 No specific target	I16.6.1 Incarceration rate <b>Source:</b> Statistics Canada. Table 35-10-0154-01 Average counts of adults in provincial and territorial correctional programs

1. Civil Justice is an important component of the Canadian Ambition, Equal access to justice as Canadians' ability to access civil justice impacts their lives materially. Relevant civil justice data is currently being collected by Statistics Canada and will be released in 2022.

### Canadian Ambition: Canadians are supported by effective, accountable, and transparent institutions

Target	Indicator
T16.7.1 No specific target	I16.7.1 Proportion of the population with high levels of confidence in selected institutions <b>Source:</b> Statistics Canada. Custom tabulation

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective,

accountable and inclusive institutions at all levels.

# SDG #17 - PARTNERSHIPS FOR GOALS

---



## Video

In this 16-minute video made available from the SDG Academy, Jeffrey Sachs looks sustainable development financing, and how are resources mobilized to achieve sustainable development.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintr/?p=289#oembed-1>*

## Analysis

The SDGs cannot be achieved without partnerships, as sustainable solutions will not come from one sector acting in isolation<sup>1</sup>. The SDGs can only be realized with strong global partnerships and cooperation. A successful development agenda requires inclusive partnerships, at the global, regional, national, and local levels, built upon a shared vision and shared goals placing people and the planet at the centre.

Official development assistance (ODA) is government aid that promotes and specifically targets the economic development and welfare of developing countries. The ODA is the “gold standard” of foreign aid and remains the main source of financing for development aid. Many countries require ODA to encourage

---

1. Global Affairs Canada. (2018). Canada’s Implementation of the 2030 Agenda for Sustainable Development: voluntary national review.

growth and trade. Yet, aid levels are falling, and donor countries have not lived up to their pledge to ramp up development finance<sup>2</sup>. Strong international cooperation is needed now more than ever to ensure that countries have the means to recover from the pandemic, build back better and achieve the Sustainable Development Goals.

Partnerships, innovative financing, science and technology transfers and data transparency are just some of the ways progress on SDG #17 will be achieved. The 2030 Agenda on sustainable development is a critical opportunity to reassess existing approaches and pursue new partnerships.

## Fast Facts

- ODA from members rose to an all-time high of USD 161.2 billion in 2020, up 3.5% from 2019;
- Developing countries have benefited from global partnerships as around 79% of imports from developing nations have entered other countries duty-free, which saves them a significant amount of money;
- External debt of developing economies reached 31% of their GDP in 2020;
- Trade, foreign direct investment, and remittances are declining globally.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

<https://ecampusontario.pressbooks.pub/sdgintro/?p=289#h5p-32>

## Why it Matters

Why should I care about partnerships for the SDGs?

We are all in this together. The 2030 Agenda is a universal and calls for action by all countries, both developed countries and developing countries, to ensure no one is left behind.

---

2. United Nations. (2021). Sustainable Development Goals.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=289#h5p-46>

## Targets and Indicators for Canada

Below is Canada's approach to measuring progress on SDG #17 – Partnerships for the Goals. Note the targets and indicators chosen<sup>3</sup>.

### 17 PARTNERSHIPS FOR THE GOALS



#### Goal 17 Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

##### Canadian Ambition: Canada fosters collaboration and partnerships to advance the SDGs

Targets		Indicators	
T17.1.1	No specific target	I17.1.1	Number of open datasets published by the Government of Canada <small>Source: Open Government Analytics</small>
T17.2.1	No specific target	I17.2.1	Total official support for sustainable development <small>Source: Global Affairs Canada. Statistical report on international assistance</small>

## Recommended Reading

- United Nations. (2021). The Sustainable Development Goal Report, 2020. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.
- OECD. (2021). Official Development Assistance (ODA).

3. Statistics Canada. (2021). The Canadian Indicator Framework for the Sustainable Development Goals - 2021

# REFLECTION, COMPREHENSION, DISCUSSION

---



## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=261#h5p-58>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*



online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=261#h5p-63>

## Discussion Video and Question



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=261#oembed-1>*

- What is the role of universities in sustainable development and achieving the SDGs?



# WEEK 10



# IMPLEMENTING THE SDGS

---

## **Solutions and Best Practices at the Individual, Local, National, and International Level.**

In the previous lectures we learned about sustainability, sustainable development, and the sustainable development goals and how currently, all countries are working on the achievement of the UN 2030 Agenda. Over the past 7 weeks we have looked closer at the 17 SDGs and how they work together at the local and international level to help promote a shared global framework to achieve a fair, equitable, and sustainable future for all.

### Culminating SDG Assignment

Now that we have looked at all 17 Sustainable Development Goals, rank in order of importance which SDGs you think are the most important for your country (rank them in order of most important to least important). Explain for each SDG why you choose the corresponding placement order / rationale for your ranking.


### Achieving the SDGs

To achieve the SDGs, the next step is planning and implementation. This week we will be looking at implementing the SDGs with local, national, and international collaboration a critical component to the success of the 2030 Agenda.

### Videos

In this 11-minute video made available from the SDG Academy, Jeffery Sachs looks at creating Sustainable Development Plans or Strategies at the country level. These strategies use the SDGs as an endpoint from which to plan backward to the current day. The premise is, if we take stock of where we are and know where we want to be in 2030, we will need a roadmap and the will to implement it.



 One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=183#oembed-1>

In this 10-minute video made available from the SDG Academy, Jeffery Sachs emphasizes the role of the stakeholder, specifically looks at transnational cooperation for success in achieving the SDGs.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=183#oembed-2>

In this 16-minute video, made available from the SDG Academy, Jeffery Sachs discusses overcoming the globalization of indifference, understanding the moral case and urgency for sustainable development, and achieving global cooperation for the Sustainable Development Goals. He also discusses climate refugees and the disasters that we are experiencing at the hands of nature and how we must approach the future together.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=183#oembed-3>

## Exercise



An interactive H5P element has been excluded from this version of the text. You can view it online

here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=183#h5p-59>

## Comprehension Questions



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=183#h5p-64>

## Recommended Reading

### SDG implementation at the national level – Canada

Previously we learned how the 17 SDGs, with their 169 targets and 230+ indicators work together. We also learned the different scales of SDG implementation – at the global, national, and local level.

To support Canada’s domestic implementation of the SDGs, the Government of Canada has committed to a national strategy, *Moving forward together: Canada’s 2030 Agenda National Strategy*. As well, the Canadian Indicator Framework (CIF) for the Sustainable Development Goals encompasses the 17 goals and adds 31 Canadian Ambitions. In order to report on these Ambitions, Statistics Canada has developed 76 indicators that monitor progress on the National Ambitions and targets. The CIF lays the foundation for Canada to track and report on its progress on the 17 SDGs in the Canadian context.

- Read about what Canada is doing to take action on the 2030 Agenda and the Sustainable Development Goals.
- Read about Canada’s voluntary national review for the implementation of the 2030 Agenda for sustainable development.

## Additional Readings

- Bhowmik J., Selim S. A., & Huq S. (2017). The role of universities in achieving the sustainable development goals.



# WEEK 11



# MONITORING, EVALUATION, REPORTING

---

In the previous lecture we learned about achieving the SDGs through planning and implementation at all levels of government with collaboration from civil societies, business, and partnerships. This week we will be looking at how the indicators and their targets form the basis of monitoring SDG implementation. We will look at how countries are doing this including evaluation indices and progress reporting.

You will recall the sustainable development goals include a list of 169 targets. In 2017, the UN General Assembly also approved the global indicator framework, a list of 232 indicators which are divided across the 17 goals and relate to their corresponding targets. Working together, the indicators and their targets form the foundation for monitoring the success of the SDGs.

The indicators are tools to help governments and institutions create implementation and monitoring strategies. They are appropriate for the local, regional, and national level to help establish priorities for governments and others working towards the SDGs. They function as a report card to evaluate programmes and policy progress and success. They are essential for showing Member State progress on achieving 2030 Agenda commitments, as individual countries are encouraged to adapt the global targets and indicators to national conditions, reflecting the priorities in their National Development Plans.

## Let's look at an example of how targets and indicators measure the success of an SDG

Remember – targets are something to be achieved that is measurable, while indicators show the measurement by which those targets can be judged or assessed.

We will use **SDG #1 – End Poverty in all its forms everywhere**, as our example.

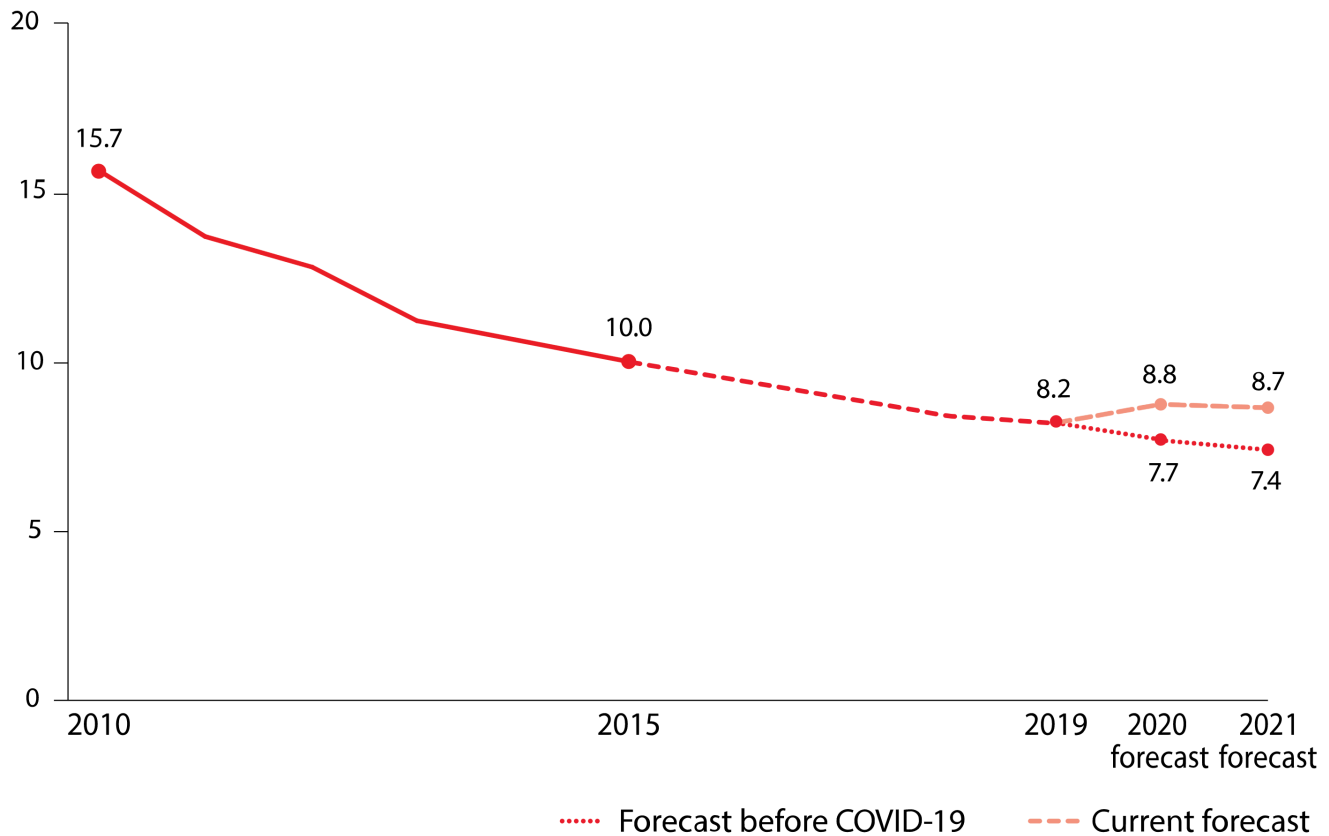
SDG # 1 is supported by 7 targets and 12 indicators.

Target 1: By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than US\$1.90 a day.

Indicator 1: Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural).

The first target is to eradicate extreme poverty for all people everywhere by 2030. The indicator for this target is to assess the proportion of the population below the international poverty line (less than US\$1.90 a day), by sex, age, employment status and geographical location (urban/rural).

Using this example, we can track the percentage of the global population living below the international poverty line. This data can be tracked over time and allows progress towards this goal to be reportable.<sup>1</sup>



*Proportion of people living below \$1.90 a day, 2010–2015, 2019 nowcast, and forecast before and after COVID-19 (percentage).*

In the example above, the target and corresponding indicator are for a global measurement, using the international poverty line. We mentioned SDG #1 has 7 targets. Target #2 measures poverty at the national level, see below.

#### SDG #1 Target 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.

#### SDG #1 Indicator 2:

- a. Proportion of population living below the national poverty line, by sex and age

1. United Nations. (2021). The Sustainable Development Goal Report, 2020.

- b. Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

SDG target 2 and indicator 2 allows for differences between countries. Although target 1 refers to extreme poverty, currently measured as the international poverty line at US \$1.90 a day, target 2 focuses on “national definitions” and encourages all countries to half the proportion of people affected. As you will recall from the week three lecture, Canada’s official poverty line is defined based on the Market Basket Measure (MBM), which is the number of people who do not have enough income to purchase a specific basket of goods and services in their community.

## Measuring progress

There are many challenges regarding measuring SDG progress, with data collection proving to be a difficult task. This is especially true for measuring change at the local community level, nationally, and globally. For some indicators, data is relatively easy to acquire because of well-established methodologies and already existing collection practices. For other indicators, there are no clear established methodologies, or the data is not widely collected internationally.

To tackle this issue an expert group created the global indicator framework, where the SDG indicators were divided into three categories:

Tier 1: Indicators with easy to find data and clear and established methodologies

Tier 2: Indicators with clear and established methodologies but the data might be difficult to find as it is not regularly produced by all countries

Tier 3: Internationally established methodologies or standards are not yet available for the indicator, but the methodology/standards are being (or will be) developed or tested

This was an important step for generating internationally-comparable data. National statistical collectors (i.e. Statistics Canada) have the central responsibility of compiling credible data. They then make this data available for regional, national, and global evaluation and reporting.

Despite national and international cooperation, there remain challenges for SDG monitoring and evaluation. There are indicators that lack agreed-upon methodologies or available official data. Some countries national statistical offices lack the capacity to produce relevant data. There are issues related to the use of unofficial sources of data, such as data produced by private companies, which provide opportunities for measuring crucial SDG indicators, but lack a role in the formal reporting system.

To fully understand progress on the SDGs, policy-makers and stakeholders at all levels need access to data that is reliable, relevant, and user-friendly to make meaningful, and measurable progress on the SDGs.

## Video

In this 10-minute video made available from the SDG Academy, Dr. Guido Schmidt-Traub (Executive Director of the Sustainable Development Solutions Network) introduces the SDG Index and Dashboards, reviewing its history and development since 2015, and the unique role it plays in measuring progress toward achieving the SDGs.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdginintro/?p=189#oembed-1>*

## SDG Index and Dashboard for Canada

2

## CANADA

## OECD Countries

## OVERALL PERFORMANCE

COUNTRY RANKING

**Canada****21** /165

COUNTRY SCORE



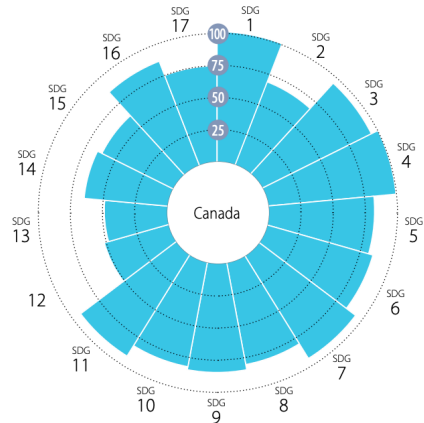
REGIONAL AVERAGE: 77.2

STATISTICAL PERFORMANCE INDEX

0 (WORST) TO 100 (BEST)



## AVERAGE PERFORMANCE BY SDG



## SDG DASHBOARDS AND TRENDS



■ Major challenges   
 ■ Significant challenges   
 ■ Challenges remain   
 ■ SDG achieved   
 ■ Information unavailable  
↓ Decreasing   
 → Stagnating   
 ↗ Moderately improving   
 ↑ On track or maintaining SDG achievement   
 ● Information unavailable

Notes: The full title of Goal 2 "Zero Hunger" is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture".

The full title of each SDG is available here: <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>

*The 2021 Sustainable Development Goal Report: The Decade of Action for the Sustainable Development Goals.*

## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=189#h5p-60>*

## Discussion Question

- Share your reflections from above with another learner. Compare and contrast your discoveries.

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=189#h5p-65>*

## Recommended Reading

- The Sustainable Development Report is a global assessment of each country's progress towards achieving the SDGs. It is a complement to the official SDG indicators and the voluntary national reviews.



## WEEK 12



# BEYOND SUSTAINABILITY TO RADICAL TRANSFORMATION

---

In the previous lecture we learned how the SDG targets and indicators form the basis of monitoring SDG implementation. In this final week we will be looking at the six transformations necessary to achieve the 2030 Agenda.

## Going beyond sustainability



It was not until the 1980's that the concept of sustainability became broadly known and understood as the practice of balancing the environment, society, and economies in a way that could meet the needs of present populations without compromising the ability of future generations to meet their own needs<sup>1</sup>. For many people, sustainability came to represent the actions required to ensure their current standard of living could be maintained or improved while ensuring a comparable if

not better standard for the next generation<sup>2</sup>. This way of thinking has come at the expense of the environment and ecological systems. Unfortunately, after three decades of ineffective sustainability understanding and action, societies are taking more than they need (especially from nature) and not leaving enough for future generations<sup>2</sup>.

There is an urgent need to move beyond the belief that just because we are using practices that may appear to minimize human impacts on the environment, we are acting sustainably. Most societies have developed systems that are not able to maintain sustainable trajectories. The current patterns of production and consumption are not sustainable and must be changed for our own welfare and that of our future generations<sup>2</sup>. Human health and the environment are intrinsically linked, yet we carry on as business as usual, guided by unrealistic notions of infinite economic development and growth that ignores the reality that we live on a planet with finite resources<sup>2</sup>.

---

1. United Nations. (2021). 1987 Report of the World Commission on Environment and Development: Our Common Future. (page 41)

2. Robinson, N. A. (2012). Beyond sustainability: Environmental management for the Anthropocene epoch. *Journal of Public Affairs*, 12(3), 181-194.

We need a new path forward that goes beyond the traditional sustainability discourse. Defining sustainability as three separate pillars (economic, society, environment) has led to each receiving different value. The environment rarely receives equal weight or treatment, often seen as a nice thing to consider if there is time and money left over.

A radical change in the way societies function is required to avoid further grave predictions as seen in the International Panel on Climate Change (IPCCs) recent report<sup>3</sup>. This will require all 200+ countries around the world, working simultaneously together to create the deep changes necessary to lead to new ways of doing business. To create a safe operating space for all of humanity, we need to change direction in a radical way.

## Radical transformation

Going beyond sustainability calls for radical transformation of the current social-ecological system and its underlying defective worldview. There is growing awareness that the current worldview driving our action, locally and internationally, is one which supports resource exploitation, the accumulation of profit, and infinite growth with humans at the centre seen as most dominant. This human exploitation of the environment has enabled the business-as-usual attitude and is the root cause of our current planetary crisis.



Transformation is understood as a profound change which requires a fundamental shift in mindset<sup>4</sup>. Radical transformation looks at the root cause of problems and gets to the core of the issue. This usually requires a shift away from the type of thinking that created the problem(s) in the first place<sup>4</sup>. Changing mindsets can be very challenging but it is possible. The status quo cannot effectively address the sustainable development challenges we face. What is required is a radical transformation of how we conceive of ourselves and the world we live in, with the environment as the essential foundation for sustainability reforms<sup>5</sup>.

To move beyond sustainability and to protect people and the planet, a new conceptualization of sustainability with the environment at the foundation is needed<sup>5</sup>. Only when the environment is healthy and

3. IPCC. (2021). Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

4. Massarella, K., Nygren, A., Fletcher, R., Büscher, B., Kiwango, W. A., Komi, S., ... Percequillo, A. R. (2021). Transformation beyond conservation: How critical social science can contribute to a radical new agenda in biodiversity conservation. *Current Opinion in Environmental Sustainability*, 49, 79-87.

5. Brock University UNSECO Chair. (2021). We can't protect our planet without radically changing our worldview.

robust can the next level (society) start to flourish. When environments are thriving and resilient, only then can societies and strong economies be accomplished.

## Video

In this 16-minute video made available from the SDG Academy, Jeffery Sachs looks at the six radical transformations that will be necessary to achieve the SDGs, including: education, skills and jobs; health and wellbeing; clean energy and industry; sustainable land use; sustainable cities; and the digital revolution.



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=186#oembed-1>*

## Exercise



*An interactive H5P element has been excluded from this version of the text. You can view it online here: <https://ecampusontario.pressbooks.pub/sdgintro/?p=186#h5p-61>*

## Comprehension Questions



*An interactive H5P element has been excluded from this version of the text. You can view it*



online here:

<https://ecampusontario.pressbooks.pub/sdgintro/?p=186#h5p-66>

## Discussion Question

- Communities are facing significant challenges due to climate and environmental changes caused by human activities that result in land degradation, ocean and air pollution, and biodiversity loss. Changing mindsets and bringing more awareness can create a new path for humans and the planet. Alone, nobody can change the world, but small groups of people working together can change part of it. Over time, these small changes create radical transformation, and the world is forever changed, for the better. What are some areas in your life where you can work locally towards the transformations needed to help set your community on a more sustainable path and help achieve the SDGs?

## Recommended Reading

- Most of the videos provided in this course were made available through the SDG Academy. The SDG Academy is the flagship education platform of the Sustainable Development Solutions Network (SDSN), a global initiative for the United Nations. The Academy creates free, open educational resources on sustainable development and offer them as a global public service. We encourage you to explore the SDG Academy at <https://sdgacademy.org/>

# APPENDIX





# ALTERNATIVE NAVIGATION

---

Visit the information page for each of the SDGs by clicking on the information icons below.



*An interactive H5P element has been excluded from this version of the text. You can view it online here:*

*<https://ecampusontario.pressbooks.pub/sdgintro/?p=466#h5p-49>*