



Manitoba Council for International Cooperation

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### 2020 Guide Updates:

This 2020 version of the guide includes updates to resource links, and clearer guidelines for use. While MCIC works to keep this document up to date, we rely on links to many external resources that may be updated or removed by the content owners.



## **ACKNOWLEDGMENTS**

On behalf of the Manitoba Council for International Cooperation, we are thrilled to present Sustainable Foundations: A Guide for Teaching the Sustainable Development Goals. The development of this resource has truly been a team effort. Many people worked diligently to make it what it is today.

We would not have been able to develop this resource without the financial support of the Government of Manitoba through Manitoba Education and Training and the Government of Canada provided through Global Affairs Canada. We are grateful for the continued support we receive from both levels of government.

Many many thanks to the MCIC team: Keana Rellinger and Grace Van Mil who developed the structure, researched and provided content editing; Megan Redmond for her design and editing; Jane Mychasiw for proofing; and Monique Sereneo, our summer student, who assisted with design.

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These resources were developed by people who share a passion for our world and making it equitable and sustainable, where no one is left behind. We've designed Sustainable Foundations to give professional educators innovative tools that fit elegantly into your curriculum. We hope your students are inspired to transform our world for peace, partnership and prosperity for all people living on the planet we share. We are in this together.

Janice Hamilton

**Executive Director** *Manitoba Council for International Cooperation* February 2018



Global Affairs Canada

Affaires mondiales Canada



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## Welcome to Sustainable Foundations: A Guide for Teaching the Sustainable Development Goals

This guide is designed for educators or anyone who would like to teach young people about the United Nations Sustainable Development Goals.

**The Sustainable Development Goals** — also known as the **SDG**s or the **Global Goals** — cover a wide range of sustainability issues; highlighting local, national and international priority areas to end poverty and hunger, improve health and education, make cities more sustainable and combat climate change.

This guide will provide you with clear information, educational resources and other supports to help you in your efforts to educate and engage young people so that they support the Sustainable Development Goals and are inspired to turn their support into action. This guide will also explore how you can incorporate the different topics covered by each goal into your lessons across multiple subjects.

You don't need any prior knowledge or experience of the United Nations, international development, or the Sustainable Development Goals to use this guide. It can be referred to in whole or as individual parts to suit your curriculum.

## This guide will help you understand:

- Key targets and understandings of each Global Goal.
- Learning objectives associated with each Global Goal.
- Who and what are affected by the Global Goals.
- What actions can we take as individuals, communities and nations.
- Educational resources and case studies available for each Global Goal.

## WHAT ARE THE SUSTAINABLE DEVELOPMENT GOALS?

The 17 **Sustainable Development Goals** — also known as the **SDG**s or the **Global Goals** — came into effect on January 1, 2016 following an historic United Nations Summit in September 2015. 193 governments from around the world agreed to implement the Goals within their own countries in order to achieve the 2030 Agenda for Sustainable Development. Over the next fifteen years, with these new Goals that universally apply to all, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

These new, interconnected goals build on the successes of the Millennium Development Goals, or MDGs, while also identifying new priority areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among others.

Although each country faces specific challenges in pursuit of sustainable development, special attention is given to the most vulnerable countries, in particular, African countries, less developed countries, landlocked countries and small island developing states. There are also serious challenges within many middle-income countries.

For each of the 17 goals, there is a list of specific targets we aim to reach. The targets discussed in this guide have been summarized for ease of reading. For a more detailed list of all the 169 targets, visit <u>GlobalGoals.org</u>.



## The "5 P's" of the SDGs

The "5 P's" of the SDGs can help people understand why the Sustainable Development Goals are important and how we all will benefit from addressing each goal by 2030.

#### Try sharing this information with your learners and ask what "P" is most important to them.

#### People

We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and in a healthy environment.

#### Planet

We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainable management of natural resources and by taking urgent action on climate change, so that the planet can support the needs of present and future generations.

#### Prosperity

We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

#### • Peace

We are determined to foster peaceful, just and inclusive societies, which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.

#### • Partnership

We are determined to implement this agenda through a global partnership, based on a spirit of global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

## **Purpose in education**

Educators have the ability to guide the positive energy of learners to make change possible. When learners are empowered with knowledge, critical reflection tools and media literacy, they are better equipped to take action and make changes for themselves and others around the world.

Educators can nurture students' curiosity and provide them with the tools and resources to inquire, understand, engage and communicate the importance of sustainability. This understanding empowers individual and collective action at the local, national and international levels. Throughout this guide we will situate the key understandings related to each goal as a way to inform and provoke discussions among students and teachers in and out of the classroom.

## **HOW TO USE THIS GUIDE**

## Approach

This guide was modeled after an inquiry approach; where learners are stimulated with questions and information about a particular issue to construct new knowledge and understanding. In this approach, educators become facilitators of learning, with students empowered to become self-directed as they explore each issue individually and collectively.

Topics covered by the SDGs may be familiar or foreign to learners. Each section is intended to help learners understand the context and key stakeholders of each goal, while inviting them to include their own understanding through reflective prompts. Prompting students to investigate issues that are new or challenging to them will help them develop a relationship between themselves and the issues. Taking time to understand learner experiences and awareness through discussions and collaborative action will ensure this process remains learner-centric.

## Method

Each chapter in this guide summarizes the main **targets** of a specific goal, indicates what the **learning objectives** are and gives context to '**the big questions**' we need to ask to understand the issues. The chapters also highlight who and what are most affected by each goal, and what needs to be done by different stakeholders to achieve these goals. The sections are meant to inform educators about the main ideas, opportunities and barriers behind each goal so they can facilitate a rich understanding for learners and give them an opportunity to inquire and explore the areas that are important to them.

## **Case studies**

Each section contains a number of case studies to add another layer of understanding and make the goals more relatable. The case studies highlight change-makers at local, national and international levels doing their best to tackle some of the big issues faced by vulnerable people in our world.

#### Case studies marked with this symbol:

#### are Manitoba-powered through funding from the Manitoba Government Matching Grant Program.

The Manitoba Council for International Cooperation works closely with these organizations to distribute funds for projects, share their results, and work to achieve the Global Goals. To learn more about how Manitobans are working together to achieve the Global Goals, you can watch this video.

## **Taking action**

Mobilizing ourselves and our community to take on the biggest barriers to global well-being can be overwhelming. The sections in each chapter on **taking action** were designed to help learners and educators get involved at the local, national and international level.

#### The following list will help you find focus on issues you are passionate about and looking to do

#### • Know your issue

Identify the key challenges facing access and quality of education in your community. Find out what aspects and issues move you to do something. Know what the different perspectives are and make the case for why people should care too.

#### Set your goals

In order to identify your goals, and see the progress you have made, your goals should be SMART: specific, measurable, achievable, realistic and timely. Plan and play to your strengths and get your community involved.

#### Build a network

Advocacy for education works best when you get the support of others. Brainstorm anyone you think might be interested in advocating for education and start letting them know about your advocacy plan.

#### Identify your ask

Figure out who you need to ask and what it is you are asking. Having these two questions answered will help you direct your message and identify how you can take action.

#### Do a thing

Know that you have learned about your issue, get involved and put your passion on display. Support a local educational charity, gather a speaker together about girls' education, find out what it takes to support children who have disabilities in the classroom and start an advocacy group.

#### Tell the world

Share your story, your concerns and your passion with the world. Use social media to speak up, to connect with leaders and dialogue about the issues.

#### • Use your political voice

Get in touch with your mayor, MLA, MP or other decision-maker. You can write them a letter about the issues your class cares about, asking what steps they are taking on the issue. You can also ask them to come speak in your class. They can help you learn about what policies are in place and may even help you brainstorm ways improve those policies.

## Terminology

#### Global South

Throughout this guide and in many resources you will see the term 'Global South'. This term is used to describe what was formerly referred to as the 'Third World' or 'developing countries'. The term Global South was chosen by the people living in places like the Caribbean, Latin America, South America, Africa and parts of Asia to describe themselves. This guide uses Global South/Global North and we encourage educators to teach and use the same terms.

#### Sustainable Development

Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. Implying more than recycling or donating to charity, it requires profoundly different thought processes and actions. The three pillars of sustainable development are Economic, Social and Environmental, and all of them need to be considered for the impact they have on development decisions.

## **End notes and hyperlinks**

Each chapter in this guide contains **end notes** and **hyperlinks** connecting to videos, articles and resources pertaining to topics related to specific goals. Educators can use these **resources** for their own lessons. At the end of each section, a number of resources have been collected to offer lesson plan ideas and additional opportunities to learn and inquire about the subject matter.

## Glossary

Throughout this guide you will find **bolded terms** within the text. These terms are included in a glossary at the end of the guide, in order to provide greater context and to foster understanding about important issues related to each goal.

## **ABOUT MCIC**

### Who we are

The Manitoba Council for International Cooperation (MCIC) is a coalition of organizations involved in international development; who are committed to:

- Respect, empowerment and self-determination for all peoples;
- Development that protects the world's environment; and
- Global understanding, cooperation and social justice.

MCIC's mission as a coordinating structure is to promote public awareness of international development issues, to foster member interaction, and to administer funds for international development.

Our vision: Manitobans Working Together as Global Citizens

#### How we can support you

Educators have the ability to guide the positive energy of learners to make change possible. When learners are empowered with knowledge, critical reflection tools and media literacy, they are better equipped to take action and make changes for themselves and others around the world.

Educators can nurture students' curiosity and provide them with the tools and resources to inquire, understand, engage and communicate the importance of sustainability. This understanding empowers individual and collective action at the local, national and international levels. Throughout this guide we will situate the key understandings related to each goal as a way to inform and provoke discussions among students and teachers in and out of the classroom.

#### Workshops

Our workshops are educational, participatory and usually 60-90 minutes in length. We offer workshops on many global issues topics, including:

Fair Trade	Child Labour	Refugees & Migration
Water	Climate Justice	Hunger
Gender Equality	Food Security	

#### See a list of past workshops and to fill out a booking form here

#### Generating Momentum conferences

Since 2002, MCIC has hosted numerous conferences on global issues for middle years and high school students. Generating Momentum for Our World conferences engage students in a discussion about global issues and helps them move through the stages of planning an activity at their school or in their community. Generating Momentum is an exciting opportunity for young people to learn about an issue, build leadership skills, take positive action and have fun!

#### View registration information for upcoming conferences here

#### Outstanding Take Action Project Award

This award is for students enrolled in *Global Issues: Citizenship and Sustainability (40S)* who have undertaken exceptional Take Action projects. The award includes a cash prize and certificate. All students who complete Take Action projects are encouraged to apply. Applications are usually open throughout the school year, until May. Awards are presented in June of each year at MCIC's Annual General Meeting and at the student's award or graduation ceremony wherever possible.

#### Learn more about the Take Action Project Award here

#### Global Citizenship Award for Educators

This award is an initiative of MCIC to recognize Manitoba teachers and administrators who have been leaders in promoting global citizenship. Awards are given out in each of the following categories: middle years teachers, high school teachers, and administrators (including principals, vice principals, superintendents, trustees and other divisional or Manitoba education staff.) MCIC will make a donation on behalf of recipients to an international development organization of their choice and they will be recognized at MCIC's Annual General Meeting. Nominations can be submitted by colleagues throughout the school year, typically until May. Awards are presented in June of each year.

#### View the criteria and nominate an educator here

#### Educator e-newsletter

MCIC regularly sends out an e-newsletter for educators. Each newsletter includes lesson ideas, useful resources and opportunities for students

#### Sign up to receive the newsletter here

#### Ethical fashion show

MCIC has created an ethical fashion show kit made up of fashions produced using fair practices including: no child labour, cooperative-made, sweatshop-free conditions and clothing that uses organic and Fairtrade-certified materials. Showcase this ethically-produced clothing at a fashion show in your school or community. Our do-it-yourself fashion show kit has everything you need to put on an ethical fashion show!

#### Find more information on how to rent our ethical fashion show kit here

#### Take Action Manitoba blog

This blog is a helpful resource full of ideas and support for students and teachers working towards sustainability and global citizenship. Students can view Take Action project examples, submit projects to be featured on the site, or learn more about new opportunities and ideas. Teachers can also find helpful tools, opportunities and information about guest speakers in the area.

#### You can visit the blog at TakeActionManitoba.org

#### Community Solidarity Fund

The Community Solidarity Fund provides funding to Manitoba not-for-profit, community-based groups involved in development projects overseas. The fund is available to non-member and MCIC affiliate members and provides another way to help Manitobans work together with partners around the world. In the past, several schools have successfully applied for funding for use in international development projects around the world.

#### Learn more and access the application forms and funding guide here

#### Fair Trade Manitoba

Fair trade is a powerful tool that goes beyond charity and other aid programs, aiming to empower marginalized producers in improving their own living conditions. With the proper resources, capacity and key relationships, disadvantaged producers are able to earn their own means to a better life for themselves and their communities. We are happy to come speak to your school about fair trade issues. Did you know you can also designate your school as a Fair Trade School?

#### Learn more about our fair trade programs for schools here

#### Member organizations

Let us help you connect with more than 40 NGOs working toward sustainable development. Our member organizations can send someone to speak to your class about a related project, or provide information on how students can get involved.

#### See a full list of our current member organizations here

## **Contact us today!**

For more information, specific resources or to answer any questions, please don't hesitate to contact us.

#### Manitoba Council for International Cooperation

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## **END POVERTY IN ALL ITS FORMS EVERYWHERE**

#### The first Sustainable Development Goal calls for an end to poverty in all its forms by the year 2030.

Achieving this goal means seeing a reduction in the number of people living on less than \$1.25 US per day. The more people earn, the more they can spend on their basic needs. One of the ways the UN hopes to do this is by implementing social protection systems at the national level to support the poor and vulnerable. That is no easy task, especially given that not everyone experiences poverty the same way.

# TARGETS

- End extreme poverty for everyone
- Implement social protection programs for the poor and vulnerable
- Ensure that everyone has equal rights to economic resources, such as control over land, property, inheritance, natural resources and financial services
- Help improve vulnerable people's resilience in the face of environmental and climate-related shocks and disasters
- Improve the political, economic, and social support for poverty-reduction strategies

The earth provides enough to satisfy every man's needs, but not every man's greed.

> **Mahatma Gandhi** Indian activist



# LEARNING OBJECTIVES

- Learners will understand the concepts of relative and absolute poverty, while critically reflecting on their underlying cultural assumptions and practices.
- 2 Learners will become aware of the local, national and international distribution of poverty and wealth, as well as a collection of poverty reduction strategies.
- **3** Learners will be able to collaborate with others to empower individuals and communities to affect change, raise awareness and encourage dialogue and solutions regarding poverty.
- 4 Learners will be able to evaluate, participate and propose solutions to systemic problems related to poverty.

# **CURRICULUM CONNECTIONS**

### Media

How does the media present poverty? Locally? Nationally? Internationally?

### Consumerism

Do our consumer habits impact the lives of others? If yes, how?

### Environment

How do environmental concerns like climate change impact poverty?

## Poverty, wealth and power

How does access to power and wealth relate to poverty?

## Indigenous peoples

In what ways do Indigenous people experience poverty uniquely?

### **Oppression and genocide**

How is poverty a form of oppression?

## Health and biotechnology

What are the impacts of poverty on a person's health?

## **Gender politics**

How does gender impact a person's experience with poverty?

## Social justice and human rights

What can we do to support people in poverty? Locally? Nationally? Internationally?

## **Peace and conflict**

What can be done to resolve poverty at different system levels?



# THE BIG QUESTIONS

## Where did it begin?

- It's hard to say where poverty began. Often, poverty exists as a cycle of events that impact a person's socio-economic situation. For the individual, it could come from an unfortunate incident, or they could be born into poverty. A drought could have impacted a farmer's crops and reduced their income, or someone could face discrimination in getting a job because of their **gender**, ability, religion, sexual orientation or literacy level.
- On an international level, the legacy of **war**, **political instability**, **national debt**, **discrimination**, vulnerability to national disasters and **colonialism** can impact the ability for governments to provide for their own citizens, resulting in social, economic and political inequalities that still impact the people living in these countries today.<sup>1</sup>

## **2** Why does this issue matter?

#### • Poverty exists in many forms

Poverty can be understood in a variety of forms, measures, and degrees, such as these key terms: **absolute poverty** and **relative poverty**. Absolute poverty represents an internationally set standard of measuring poverty in relation to a person's ability to meet their basic human needs. Relative poverty is defined and measured by income inequalities of a particular social context, meaning that people are in poverty if they fall below prevailing standards in their region.

#### • Poverty is a cycle

Poverty is more than not having enough money, it also includes the lack of **basic services** such as education, **food security**, social discrimination or lack of participation in decision-making. It takes money, resources and power to be able to engage with your community and support yourself.

As described by the UN, poverty includes a lack of choices and opportunities. Without access to basic resources and services, poverty impacts people's basic survival and participation in society.

When you are poor, you don't have enough money to feed or clothe your family, go to school or have land to grow your own food or earn a living. Living in poverty also means you are susceptible to violence and live in a fragile environment, or might live without access to clean water or **sanitation**.

#### Poverty is measurable

One way we can measure poverty is through the **poverty line**, or the minimum daily income that will allow you to meet your basic needs. A majority of people living on less than \$1.90 a day live in Southern Asia and sub-Saharan Africa. They account for about 70 per cent of the global total of extremely poor people.<sup>2</sup> Calculating a **poverty rate** measures the number of people living below this daily income level.

## **3** Who and what are affected?

#### The rich and poor

Both locally and internationally, there is a widening gap between rich and poor; however, this is not a simple question of extreme wealth in developed countries and extreme poverty in developing countries. Using data, European researcher Hans Rosling founded the Gap Minder Project<sup>3</sup> that shows how wealth and poverty have been shifting over time. Take a peek and see how people in communities around the world live on their daily income.

#### Children

On a local level, many issues of poverty are impacting Manitobans. From homelessness to child poverty, to the overrepresentation of Indigenous people in the criminal justice system, poverty has many sources and impacts in our community. In particular, Manitoba has the highest child-poverty rate in the country, with nearly 29 per cent of children living in poverty in the province.<sup>4</sup>

Within Canada, the Canadian Centre for Policy Alternatives found that in 2016, 60 per cent of children living on reserves were living in poverty.<sup>5</sup> Barriers such as underfunded schools and **child welfare services** impact the ability for children to realize their potential. This is part of the problem of the **cycle of poverty**—the set of factors or events that make it difficult for an individual or group of people to get out of poverty without intervention.

#### Women

Internationally, women are more vulnerable to the effects of **climate change** because they constitute the majority of the world's poor. Because two-thirds of the working women in developing countries make a living from agricultural resources for their income, they are more vulnerable when it comes to poverty when those resources are negatively impacted by climate change.<sup>6</sup>

The most direct cause of women's misfortune is poverty; demanding their freedom means above all demanding reform in the economy of society which will eradicate poverty and give everyone an education, a minimum standard of living and the right to work.

> **Zoé Gatti de Gamond** Belgian educator and feminist



## 4 What is being done?

- Tackling huge systemic issues like poverty takes a lot of coordinated effort from a number of **stakeholders**, or people who have an interest in seeing this issue resolved. From large corporations to smaller local organizations, everyone is capable of tackling poverty issues.
- Advocating for effective **poverty reduction** strategies is a great way governments, organizations and decision-makers can help on a number of different levels. From income supports to child care programs, poverty-reduction programs enable people in poverty to create wealth for themselves and end their cycle of poverty.
- In order to make a difference in ending poverty as we know it, we need programs at the local, national and international levels. Some strategies are introduced to empower particular groups of people, like women, while others attempt to address particular elements of poverty, like debt or food insecurity.
- Another strategy for poverty reduction is using a **universal basic income** as a means of supporting citizens or residents of a region or country to receive an amount of money either from a government or public institution. The idea was explored in the town of Dauphin in Manitoba in 1970 to see the impact of giving people money instead of targeted aid. The results found that, while not cheap, the program was able to stabilize poverty, reduce hospitalization rates and saw more teenagers staying in school.<sup>2</sup>

" Don't let complexity stop you. Be activists. Take on the big inequities. It will be one of the great experiences of your lives."





# **CONNECTION TO THE OTHER GOALS**



The more the global population grows, the more burden is placed on the environment, making poverty a concern for our planet as well. From harmful practices which lead to **deforestation**, air and water pollution, soil erosion and increased consumption, impoverished communities can contribute to **environmental degradation** in many ways.<sup>®</sup> Education is needed to learn about proper and harmless methods to dispose waste and develop sustainable agricultural systems. Programs like re-forestation or improved waste management systems can help restore the impact of humanity and poverty on our environment.<sup>®</sup>



As a social problem, poverty and income inequality have been a reason for protests and social revolutions. As an example, the Occupy Wall Street movement wanted to change the way money, wealth and income are distributed in the United States. The movement's focus is to change the fact that there is a very big difference between how much money and wealth rich and poor people have. A group of protesters came together in New York City on September 17, 2011 and began gathering in Zuccotti Park in downtown Manhattan near Wall Street. The objective of the protest was to bring attention and political action to economic inequalities worldwide.



Poverty continues to impact women more than men. Women are over-represented in the ranks of the poor and underrepresented among upper income earners. According to the Centre for Social Justice, in Canada the poverty rate is 20 per cent for women in general; 37 per cent for women of colour; and 43 per cent for Indigenous women.<sup>9</sup> While issues of poverty affect populations in general, the above statistics show that they affect people within these groups uniquely.<sup>10</sup>



## **Consequences of inaction**

- From an economic perspective, poverty is expensive. It is not just about giving money to people to support them, but
  orchestrating an entire network of support. From healthcare and justice to education and social welfare, it costs of the
  Province of Ontario (in collaboration with the federal government) between \$10.4 billion and \$13.1 billion a year to reduce
  poverty in the province.<sup>11</sup>
- One of the biggest challenges to alleviating poverty is to tackle all of its various root causes. While it might be easy to assume that taking care of someone's income or personal finances might solve the problem, the causes of poverty can often be social or health-based, or experienced as a result of war or climate change.
- Problems with physical or mental health, experiences of violence, exploitation and marginalization contribute to putting
  people in positions of poverty. Without taking the time to understand what the social and emotional causes of poverty
  are, we might be putting our efforts into a short-term solution of a long-term problem.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

When individuals join in a cooperative venture, the power generated far exceeds what they could have accomplished acting individually."

**R. Buckminster Fuller** American author and inventor



# **RESOURCES**

## How to take action

- Go to <u>DoSomething.org</u> to select an issue you or your students want to take action on and generate ideas based on options you choose. For example, select "poverty" as your cause with a few hours as your time frame, and it will generate ideas like <u>building kits of basic supplies to donate to a homeless shelter</u>.
- Sign the ONE campaign to tell G20 leaders that girls count and poverty is sexist here.
- Help support a local effort to reduce poverty: foodbanks, school food programs, homeless shelters, local charities or the United Way. Find out what's happening in your community and get on board!
- Take action through groups students may already be a part of, such as Girl Guides of Canada. They have developed a <u>national service project</u> that challenges girls to take action in their own communities, and they also have <u>various project ideas here</u>.

## **Educational resources**

- The World's Largest Lesson page for Goal 1 has downloadable comics, posters and lesson plans <u>here</u>. You can also download a lesson for 11-14 year olds called <u>The World is Not Equal. Is That Fair?</u> This lesson highlights different types of inequality and helps students explore the impact inequality has on the wider society and economy.
- The BC Teacher's Federation pulled together a document with <u>lessons and resources on poverty</u>.
- Explore Oxfam International's <u>learning resources</u> for Global Poverty Day.
- <u>Global Poverty Requires Local Solutions</u> (ages 11-14) is a lesson plan that introduces poverty, its definition and potential solutions with a focus on the value of education. The lesson uses the author's location of Hyderabad, India as its focal point.
- A series of <u>lesson plans on poverty</u>, available through the Saskatchewan Council for International Cooperation, focus on the United Nation's **Millennium Development Goals**, but are still relevant under the new Sustainable Development Goals.
- <u>Scrambling for Resources</u> is a lesson plan using pennies (or any small coin or item) to teach students about income distribution and wealth in the world, and how it is often unequal.



# **CASE STUDIES**

## The Marquis Project

An example of local and international poverty reduction initiatives in action is the Marquis Project in Tanzania.<sup>12</sup> The goal of this project is to assist **child-headed households** and marginalized young women and girls through facilitating their participation in the local **market economy**. The program helps people learn about how to become entrepreneurs and increase their income to support themselves and their family. The project acts as a catalyst to increase local capacity through a combination of **micro-enterprise**, **agro-production** and vocational training, mentorship and **micro-credit** development.

## 2 Poverty reduction in Canada

In Canada, poverty reduction strategies are addressed at the provincial level. Social programs such as welfare, **old age security, employment insurance, minimum wage laws** and **child credits** are designed to help people who are economically vulnerable lessen the chances of them falling into poverty. The funding for these programs comes from the Canadian income tax system. Without the Canadian tax system, poverty rates in 2013 could have been 23 per cent instead of the 12 per cent that year.<sup>13</sup> Cuts to spending on social welfare programs make it difficult for people living in poverty to support themselves and their families on limited income.

## **3** The Grameen Bank

As an example of someone working on poverty reduction, Professor Muhammad Yunus<sup>14</sup> established the Grameen Bank in Bangladesh in 1983, fueled by the belief that credit is a fundamental human right. His objective was to help poor people escape from poverty by providing loans on terms suitable to them and by teaching them a few sound financial principles so they could help themselves. Replicas of the Grameen Bank model operate in more than 100 countries worldwide. By acknowledging the rights of all people to economic empowerment, Professor Yunus was making a difference in the lives of the poor.

## Presbyterian World Service & Development Organization

The Presbyterian World Service & Development Organization is working with vulnerable youth, women and men to provide them with skills to help them build sustainable livelihoods for themselves and their families in Malawi. Self-help groups provide education, vocational training and savings or financial management skills, following the idea of "each one, teach one."



## **5** Canadian Multicultural Disability Centre

Using the current Zimbabwean cattle ownership trust scheme, the Canadian Multicultural Disability Centre is helping disability-headed households participate in dairy farming. Dairy farming has a higher potential for immediate income generation compared to traditional farming, since farmers do not need to wait until the harvest season to take their produce to market.

## 5 HOPE International Development Agency

HOPE International Development Agency is helping women in Southern India improve their livelihoods by enhancing the resources of local institutions, including self-help groups and community managed resource centres. In collaboration with a local **non-governmental organization** (NGO), the MYRADA project uses a self-help group approach and forms member-based groups to focus on socioeconomic empowerment for two vulnerable groups: Dalit and women.

## **End notes**

- <sup>1</sup>https://borgenproject.org/what-causes-global-poverty/
- <sup>2</sup> <u>http://www.un.org/sustainabledevelopment/poverty/</u>
- <sup>3</sup> <u>http://www.gapminder.org/</u>
- <sup>4</sup> <u>http://cwp-csp.ca/2015/12/we-can-do-it-report-provides-anti-poverty-roadmap/</u>
- <sup>5</sup> http://www.cbc.ca/news/indigenous/institute-says-60-percent-fn-children-on-reserve-live-in-poverty-1.3585105
- <sup>6</sup> <u>http://www.un.org/womenwatch/feature/climate\_change/downloads/Women\_and\_Climate\_Change\_Factsheet.pdf</u>
- <sup>7</sup> http://www.newyorker.com/magazine/2016/06/20/why-dont-we-have-universal-basic-income
- <sup>8</sup> <u>https://borgenproject.org/how-poverty-impacts-the-environment/</u>
- <sup>9</sup> <u>http://www.socialjustice.org/index.php?page=gender-inequality</u>
- <sup>10</sup> <u>http://www.socialjustice.org/index.php?page=gender-inequality</u>
- "https://feedontario.ca/what-happens-when-the-safety-net-fails/
- <sup>12</sup>http://www.marquisproject.com/wp-content/uploads/2014/06/Marquis-TSAEE-June-2014-1.pdf
- <sup>13</sup>http://www.conferenceboard.ca/hcp/Details/society.aspx
- <sup>14</sup> http://www.nobelprize.org/nobel\_prizes/peace/laureates/2006/yunus-bio.html





## END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

**The second Sustainable Development Goal is all about ending hunger.** This goal isn't just about making sure everyone has enough food to eat, it's also about making sure that food is safe and nutritious. Because the food we eat has to come from somewhere, this goal also directs attention to sustainable food production, resilient agriculture and local and global cooperation when it comes to investing in agricultural productivity.

Over the past 15 years, the fight to end hunger has come a long way. The prevalence of hunger wordwide has declined from 15 per cent in 2002 to 11 per cent in 2016.<sup>1</sup> But, more than 790 million people still don't have regular access to nutritious food. This has far-reaching effects on people's health and well-being, making it an important goal to achieve. The goal of ending world hunger and improving access to nutritious food will be measured by the prevalence of undernourishment, malnutrition and by child growth. As sustainable food production increases, this goal will look at the volume of food production by different kinds of agriculture and the average income of farmers based on their sex and Indigenous status.

" The first essential component of social justice is adequate food for all mankind. Food is the moral right of all who are born into this world."

> **Norman Borlaug** American biologist and humanitarian



# TARGETS

- By 2030, hunger will be eradicated and all people, particularly those most vulnerable, will have access to nutritious, sufficient food all year round.
- Malnutrition will be eradicated through the meeting of targets on stunting and wasting for children under five, and sufficient nutritional levels for adolescent girls, pregnant and nursing women and older persons.
- By 2030, agricultural productivity and incomes of small-scale food producers will be doubled: women, Indigenous Peoples, family farmers, pastoralists and fishers will be supported though access to land and other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
- By 2030, sustainable and resilient food production and agricultural practices will help maintain ecosystems and strengthen capacity to adapt to climate change, while progressively improving land and soil quality.
- Increase investment in rural infrastructure, agricultural research, and technological development to enhance productive agricultural capacity in developing countries

# LEARNING OBJECTIVES

- 1 Learners will understand and be able to communicate the difference between hunger, food security and malnutrition, and their main physical and psychological effects on human life.
- 2 Learners will understand the drivers, causes and distribution of hunger and malnutrition locally, nationally and globally.
- **3** Learners will understand the principles of sustainable agriculture and why it is needed to combat hunger and malnutrition.
- 4 Learners will be able to collaborate with, encourage and empower others to combat hunger and promote sustainable agriculture.
- 5 Learners will be able to evaluate, participate and implement actions personally and locally to combat hunger and promote sustainable agriculture.



# **CURRICULUM CONNECTIONS**

## Media

How does the media present hunger and food security? Locally? Nationally? Internationally?

## Consumerism

Do our consumer habits impact other's access to quality food?

## Environment

How do environmental concerns like climate change impact food security?

### Poverty, wealth and power

How does access to power and wealth relate to food security?

## **Indigenous Peoples**

In what ways do Indigenous people experience food insecurity uniquely?

## **Oppression and genocide**

How is hunger a form of oppression?

## Health and biotechnology

How is technology being used to improve food security?

## **Gender politics**

How does gender impact a person's experience with hunger and food security?

## Social justice and human rights

How can we enforce access to healthy food as a human right? Locally? Nationally? Internationally?

## **Peace and conflict**

How does solving food security issues affect peace and conflict?

# " If you can't feed a hundred people, then just feed one."

**Mother Theresa** Nobel Peace Prize laureate



# THE BIG QUESTIONS

## Where did it begin?

- Widespread periods of food scarcity known as famine have happened on every continent during human history.
   Famines, usually caused by crop failure, population imbalance, government policies, war or natural disasters, are often accompanied by widespread malnutrition, starvation, epidemics and increased deaths. While famines still occur today in parts of the world, the frequency and intensity of famine has largely decreased since the 1970s.
- In Canada, for example, hunger can arise from **poverty**, unequal distribution of affordable and nutritious food and high food prices. On a national and international level, **poverty cycles**, lack of investment in agriculture, natural disasters, **climate change**, war and displacement, unstable markets, and food wastage all contribute to food insecurity, hunger and malnutrition.
- Researchers look at climate patterns, consumption patterns and market prices to gauge how and when widespread hunger will become a problem for communities and countries. The USAID website, Famine Early Warning System Network, examines where these issues are contributing to famine and malnutrition.<sup>2</sup>

## **2** Why does this issue matter?

#### Hunger is still an issue

This issue matters because we have people in our world who shouldn't have to be hungry. We feel hungry when we haven't had enough food to eat. When we have **chronic hunger**, it means we have not been able to consume enough food to sufficiently meet our dietary energy requirements over a long period of time. Malnutrition makes hunger specific by identifying an insufficient level of specific nutrients we need to grow and be healthy. When we are malnourished, we are increasing our risk of death, diet-related diseases and chronic health conditions. This is particularly a concern for mothers and children as they need a lot of specific nutrients to grow and support themselves.

While dietary needs vary with age, sex, health, status and activity levels, well-rounded diets should contain a base of starchy carbohydrates, a variety of fruits and vegetables, regular legumes, milk products and moderate meat, poultry, eggs, fish, healthy fats and oils. It's important to understand how nutrition impacts our health and well-being, as well as the serious impaxt of not having enough food.

According to the United Nations Food and Agriculture Organization (FAO), hunger is most prominent in under-nourished people living in Southern Asia, sub-Saharan Africa, Eastern Asia, Latin America and the Caribbean.<sup>3</sup> However, these regions are not solely defined by the amount of food they have, so it is important to be conscious of biases and stereotypes about regions facing food insecurity too. We know Canada and other Global North countries also have people who lack nourishment.



#### Food security is our key to success

Making sure we have enough food to sustain the world's growing population is the foundation of **food security**. As defined by the World Food Summit in 1996, we can consider ourselves food secure when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their needs.

Food security can exist on a household, national or international level. Whether it's within your family, your community or your country, having enough food to thrive is a basic **human right** and an important goal for everyone to work toward.

The FAO of the UN identified the four pillars of food security as availability, access, utilization and stability. It's important to understand these pillars to ensure the food we eat and the way it gets to our table is healthy for us and our planet.

#### Nutrition is important to our development

Malnutrition exists when there are not enough or too much of certain key nutrients in our diet. This can cause health problems. In 2015, there were 793 million undernourished people in the world. This is a reduction of 216 million people since 1990.<sup>4</sup>

However, on a local and international scale, natural and human-created disasters, political instability and economic inequalities continue to impact access to nutritional food and education for vulnerable and food insecure populations.

Getting enough of each nutrient is vitally important to healthy development, especially for children under five. Malnutrition prevents children from reaching their full physical and mental potential, and the consequences of prolonged malnutrition can include delayed physical growth and motor development, lower IQ, increased behavioural problems and vulnerability to disease.<sup>5</sup> About 45 per cent of all child deaths are linked to malnutrition.<sup>6</sup>

#### Sustainable Agriculture is critical for us and our planet

The production of food, plant and animal products using farming systems that protect the environment, and ensure healthy communities and animal welfare is called **sustainable agriculture**. In our quest for feeding the hungry, it's important to understand how we can do that without sacrificing the land we live on and risking our future generations' ability to provide for themselves.

Using sustainable techniques such as **permaculture**, crop rotation, natural pest predators and soil enrichment can increase productivity, while maintaining the ecosystems they are in. Additionally, we can ensure our agricultural practices are able to adapt to climate change, extreme weather, drought, flooding and other disasters so we can improve our land and soil quality. Sustainable farming techniques in the cattle industry are an example of how both food security and animal welfare can be a priority.<sup>7</sup>



#### Who and what are affected?

Women and children are often impacted the most by malnutrition and food insecurity. The empowerment of women in agriculture through both education and economic support can increase family income, which typically has positive impacts on the health and nutrition of children.

#### • Children

In 2016, nearly one in four children under the age of five (an estimated total of 155 million children worldwide) had stunted growth. **Stunting** is defined as inadequate height for age, an indicator of the cumulative effects of undernutrition and infection. Southern Asia and sub-Saharan Africa accounted for three quarters of the children under five with stunted growth in 2014.<sup>8</sup>

Another aspect of child malnutrition is the growing share of children who are overweight, a problem affecting nearly every region. Globally, between 2000 and 2014, the percentage of children under the age of five who were overweight grew from 5.1 per cent to 6.1 per cent.<sup>9</sup>

#### • Women

Women make up almost half the world's farmers and produce 60 to 80 per cent of the food in most developing countries. However, their key role as food producers and providers and their critical contribution to household food security has only recently been recognized. Despite this significant role, barriers such as reduced access to farms, education and finance make it more difficult for women to access resources.<sup>10</sup> To achieve this goal, it's important to reduce barriers for women and allow them better access to the knowledge and technology they need to improve their crop yields.

#### • Everyone

In order to guarantee the availability and access of nutritious food, we need to ensure we don't jeopardize our future generation's availability to do the same. Food stability is a balancing act and the time has come for us to evaluate the impact of our current systems of food production and consumption.

" I have the audacity to believe that peoples everywhere can have three meals a day for their bodies, education and culture for their minds and dignity, equality and freedom for their spirits."

> Martin Luther King, Jr. American activist and civil rights leader





#### 4 What is being done?

Achieving a sustainable, healthy and accessible food system takes a **systems approach**.<sup>11</sup> This means that we are examining the interconnected root causes of problems and exploring and experimenting with potential solutions. Rather than trying to fix each problem one by one (say hunger, then health), a systems approach looks for relationships between different parts of the issue to coordinate interventions that look at the causes of the issue such as "why does chronic disease occur more often in low-income groups?"

#### Income security

One of the biggest contributions to the reduction of poverty, hunger, and malnutrition comes from promoting income security and access to better nutrition, health care and education. By improving the ability for people to provide for themselves, people are able to access enough food to feed themselves, while helping vulnerable groups participate in their local economy through better access to employment.

#### Food security and empowerment

Economic growth is a key success factor for reducing food insecurity and undernourishment, but it has to be **inclusive** and provide opportunities for improving the livelihoods of the poor. Enhancing the productivity and incomes of smallholder family farmers is key to progress. One way to do this is through supporting empowering processes for women and marginalized groups.

#### Nutrition

Advances in agriculture, harvest selection and crop rotation can have a positive effect on the nutrient density of our produce. Additionally, empowering individuals and communities to access healthy foods and make informed decisions is key. For example, instant stock powders are popular additions to home cooked meals because they add flavour. While they taste great, they don't have the best nutrients, especially to support growing children on their own. In Zambia, soup stock made with moringa tree leaves, a tree which thrives in harsh conditions, contains about seven times the amount of vitamin C of oranges and three times as much potassium as bananas.<sup>12</sup>

#### • Sustainable agriculture

Sustainable food production systems and resilient agricultural practices are our best tools in tackling hunger and malnutrition. Paying attention to things like genetic diversity in livestock breeds and the nutrients available in our soil becomes an important indicator in ensuring a reliable and sustainable food production system. Additionally, making sure we try to minimize the negative impact we have on our environment when we farm is a top priority.



## **CONNECTION TO THE OTHER GOALS**



Our food cycle begins in the soil and the sea. When we take too much or we cut corners to try and get more, we damage the ecosystems we harvest and risk the ability for future generations to feed themselves and get enough nutrition. When the soil is damaged or the sea is too warm, the food becomes less nutritious and less beneficial for us. When we use too much water, we are damaging the delicate balance of resources we have on the earth. Ensuring an end to hunger must also take into account how to protect the earth at the same time.



A big part of ending hunger is reducing inequalities so that more people have the ability to make a living from sustainable agriculture and support their families and communities. As we've discussed in this chapter, women are **disproportionately** marginalized when it comes to access and opportunities in agriculture. Making space for equal opportunities in food production becomes a **gender** issue as well.



Reducing hunger comes with an opportunity to reflect on our consumption and production habits. How much food do we need to survive? How much food do we waste? What can we do with our food waste that is more productive? Asking these questions offers us a chance to consider if our connection to the wider food consumption and production system is sustainable.



#### **Consequences of Inaction**

- By not taking action on hunger, malnutrition, and unsustainable production habits, we risk increasing our food insecurity as climate change, natural disasters, increasing population and decreasing **biodiversity** become prominent issues.
- A study by ActionAid, an international anti-poverty agency, estimates that hunger costs poor countries approximately \$450 billion per year in lost **GDP** due to reduced worker productivity, poor health and lost education.<sup>13</sup>

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

In the developing world, it's about time that women are on the agenda. For instance, 80 percent of small-subsistence farmers in sub-Saharan Africa are women, and yet all the programs in the past were predominantly focused on men.

> **Melinda Gates** American philanthropist

## **RESOURCES**

#### How to take action

ZERO HUNGER

- Make every dollar count. Buy from sustainable, local or fair trade sources when you can. When you buy fair trade, you are ensuring the producers of your food are receiving a fair price and fair wage for their produce. Buying local also helps cut down on the environmental impact of large scale productions and transport.
- Volunteer at a food cooperative or community garden. Give your time and talent to learning about sustainable practices in your community by getting involved in a local food cooperative or community garden that supports food security on a community level. Internationally, you can encourage programs that improve access to credit, education and gender equality. Social investment and economic empowerment with a sustainable focus mean better opportunities for income and food production for us and the future.
- Volunteer at a local foodbank. If you're in the Winnipeg area, you can check out Winnipeg Harvest's youth and school volunteer program <u>here</u>. Find out what your local organizations are in need of and help them get it. Everybody loves cake icing, but tinned meat and fruit, peanut butter or baby formula will go further in addressing malnutrition. Buy some healthy food that doesn't need to be prepared (think granola bars or bananas) and keep them in your bag or your car to hand out to people asking for food donations on your daily route.
- **Host an awareness day.** Learn about hunger in your community, then host an awareness day. One group of Manitoban students baked muffins and handed them out to other students while they talked about Goal 2 in their school.
- **Help support a local effort to reduce hunger.** School feeding programs, foodbanks, local charities and feeding programs are great ways to get involved. Find out what's happening in your community and get on board.
- Join an advocacy campaign, such as the <u>Good Soil</u> campaign from the Canadian FoodGrains Bank where students send postcards to the Prime Minister to show support for increased aid for agriculture. Learn more about how to get involved in their fight against hunger <u>here</u>.
- **Try out the 30 Hour Famine Challenge from World Vision**. The <u>30 Hour Famine</u> is an experiential fundraising campaign that raises awareness and funds for the world's most vulnerable. For 30 hours, people volunteer to fast or give up something they would normally do, to stand in **solidarity** with those who go without every day.

#### 2 ZERO HUNGER



#### **Educational Resources**

- The World's Largest Lesson page for Goal 2 has downloadable comics, posters and lesson plans <u>here</u>. You can also download a lesson for 11-14 year olds called <u>The World is Not Equal. Is That Fair?</u> This lesson highlights the different types of inequality and helps students explore the impact inequality can have on the wider society and economy.
- Read about Canada's plans for food security and sustainable production <u>here</u>. Get a sense for what Canada is doing to find practical solutions to the problems plaguing our food system with <u>this TED Talk</u> from Director of Food Secure Canada, Diana Bronson.
- Take a look at the World Food Program's primer on the impacts of climate change on food security.
- In <u>this video</u>, a very animated food security expert Dr. Evan Fraser guides you through a crash course in climate change and food security.
- <u>Caterpillars & Cornstalks</u> (Grades 2 to 4) is an activity from the Canadian Foodgrains Bank. This activity helps children gain a basic understanding of some of the factors that help and hinder the ability of small-scale farmers to grow food.
- Try out the activity <u>A Divided World</u> to demonstrate how the world's food is divided globally and how this inequality impacts peoples' rights around the world.
- Students can also learn while playing the <u>Breaking the Cycle of Hunger Game</u>, which helps students explore the causes of hunger, how it hinders development and what can break the cycle of hunger.
- <u>Circular Economy & Modern Agriculture</u> (ages 12-19) is a lesson plan that introduces challenges in modern agriculture and discusses securing a food supply for the future.
- Learn more about hunger, including key terms from the <u>Canadian Foodgrains Bank</u>, or search their <u>activities page</u> by topic and grade level.



## **CASE STUDIES**

#### World Food Programme (WFP)

The largest organization addressing food insecurity around the globe is the World Food Programme (WFP). As the food assistance branch of the United Nations, WFP provides food assistance to an average of 80 million people in 75 countries each year. Based in Rome with more than 80 country offices around the world, the WFP works to help people who cannot produce or obtain enough food for themselves and their families.

#### **2** Action Against Hunger (AAH)

With a global network serving 14.7 million people, Action Against Hunger (AAH) is another organization working to ensure people have access to nutritious food, resilient agriculture practices and support during emergencies. In Uganda, AAH is working alongside displaced families seeking to rebuild their lives and provide for their families. Watch this quick video showing the work AAH is doing to help Sudanese refugees become community leaders.<sup>14</sup>

#### Supporting Empowerment of Women Tea Workers in Malawi (SEW)

In Malawi, women dominate the labour force in the tea industry, but the majority work seasonally as tea pickers, with few in managerial positions. Harassment or discrimination of women in the workplace, coupled with poor management can leave workers feeling unsafe, vulnerable and unmotivated. The goal of the SEW project is to provide meaningful and rewarding employment for women in the Malawian tea industry. The SEW project increases the role of women within the workplace and their communities through leadership training that builds confidence and self-esteem. By increasing their ability to support their families, the project has spillover effects into the well-being of children as well.

## 4 World Relief Canada 🗋

World Relief Canada is helping improve the livelihoods and food security of vulnerable rural families in communities in the Malyo area of North Kivu in the Democratic Republic of the Congo by building the capacity of farmers to use sustainable agricultural practices. Farmers are provided with tools and improved seeds and are supported in forming small farming associations.



## 5 World Renew

World Renew has been working to improve agriculture and food security in the Kishoreganj District in Bangladesh through the promotion of environmentally sound farming practices to marginal families who possess less than half an acre of farmland. Once the project is completed, it hopes to ensure Agricultural Resource Teams (AgRTs) and farmer participants have the skills they need to continue using new farming practices that will increase crop yields and reduce crop failure. It will also link AgRTs closely with Government Agricultural Offices.

## 5 World Vision Canada

Through improvements to crop and livestock productivity, World Vision Canada is working to improve and sustain food security in Ghana, Mali, Senegal and Sierra Leone. The project supports the procurement of supplies needed to increase agricultural production and income generation for beneficiaries, while providing gender-sensitive training on improved, sustainable crop and livestock production and training animal health workers in disease prevention and control.

#### **End notes**

- <sup>1</sup>https://sustainabledevelopment.un.org/sdg2
- <sup>2</sup> <u>https://www.fews.net/</u>
- <sup>3</sup> <u>http://www.fao.org/resources/infographics/infographics-details/en/c/238873/</u>
- <sup>4</sup> http://www.fao.org/publications/sofi/2015/en/
- <sup>5</sup> <u>https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-11-261</u>
- <sup>6</sup> <u>http://www.who.int/news-room/fact-sheets/detail/children-reducing-mortality</u>
- <sup>7</sup> <u>https://www.youtube.com/watch?v=bbci7wMuQWM</u>
- <sup>8</sup> <u>https://sustainabledevelopment.un.org/sdg2</u>
- <sup>9</sup> https://unstats.un.org/sdgs/files/report/2016/secretary-general-sdg-report-2016--EN.pdf
- <sup>10</sup> http://www.fao.org/docrep/x0171e/x0171e02.htm
- "https://foodsecurecanada.org/resources-news/news-media/national-food-policy-prime
- <sup>12</sup> <u>http://www.bbc.com/news/business-30504720</u>
- <sup>13</sup> <u>https://actionaid.org/publications/2010/whos-really-fighting-hunger-report#downloads</u>
- <sup>14</sup> https://www.youtube.com/watch?v=SIznRH0IrdQ

## **3** GOOD HEALTH AND WELL-BEING



#### ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

We all deserve to be healthy and able to achieve what we need in our lives. However, to ensure the health of everyone, we also need to address gaps in services, treatment and coverage for vulnerable populations too. We can do this by developing strategies to positively impact the mortality rates of mothers, children, substance users, the extremely poor and other minority groups who have difficulty addressing their health needs. Additionally, this goal seeks to improve access to universal health care, access to affordable medicines and sexual and reproductive health care services for everyone. Through improved access to health care around the world, strong research, health finance and early warning systems, we can address and reduce epidemics such as malaria, HIV/AIDS, mental health and cancer. We can measure how we're doing by looking at population mortality rates to see if the number of new cases or the number of people dying changes through intervention programs.

## TARGETS

- By 2030, the global maternal mortality rate will be less than 70 per 100,000 live births, and the number of underfive deaths as low as 25 per 1,000 births.
- By 2030, AIDS, tuberculosis, malaria, communicable and tropical or water-borne diseases will be a thing of the past.
- Prevention and treatment of substance abuse will be strengthened.
- Universal access to sexual and reproductive health care services as well as safe, effective, affordable and quality general medical services will be available.
- Increase to health financing, training and retention of skilled health workforce in developing countries.

" Of all the forms of inequality, injustice in health care is the most shocking and inhumane."



## **LEARNING OBJECTIVES**

- 1 Learners will understand the concepts of health, hygiene and well-being while critically reflecting on the importance of gender in health and well-being.
- 2 Learners will understand the socio-political and economic dimensions of health and well-being as well as strategies to promote good health.
- **3** Learners will understand the importance of mental health and strategies to foster positive physical and mental health and well-being, including reproductive and sexual health.
- 4 Learners will be able to communicate issues of health, including sexual and reproductive health, and preventative strategies.
- 5 Learners will be able to include health promoting behaviours in their daily routines and perceive avenues of support when others or themselves need help.

## **CURRICULUM CONNECTIONS**

#### Media

How are different health issues reported? How are local stories covered versus international?

#### Environment

How is our health connected to the health of our environment?

#### Poverty, wealth and power

How are poverty and health linked? What are strategies to intervene?

#### **Indigenous Peoples**

What are some opportunities for holistic healing in the health and well-being of Indigenous communities?

#### **Oppression and genocide**

How are oppression and discrimination related to health and well-being?

#### Health and biotechnology

What trends are emerging in technological innovation and health?

#### **Gender politics**

How is health related to gender inequality?

#### Social justice and human rights

What do the experiences of people who are discriminated against within the health care system say about the system in general?

#### **Peace and conflict**

How do you rebuild a healthcare system in a post-conflict environment?



## **THE BIG QUESTIONS**

#### Where did it begin?

- Poor health and **poverty** are closely linked. They are both a cause and a consequence of each other. This cycle of poor health and poverty can occur at local, national and international levels. At the local level, lack of money, lack of information, cultural barriers, geography and **stigma** can prevent people from accessing necessary health services. At the community national, or international level, poor health can be caused by widespread poverty, infectious diseases and lack of government social support for the poorest and most vulnerable people.
- On an environmental level, overcrowded and poor living conditions can contribute to the spread of airborne diseases such as tuberculosis, and respiratory infections such as pneumonia. Reliance on open fires or traditional stoves can lead to deadly indoor air pollution. Environmental degradation caused by pollution, and overconsumption leading to lack of food, clean water and sanitation can also be fatal.
- When we look at **social determinants of health** such as income, education, job security, **food security**, housing, **gender**, race, disability and where people are born, we can see that there is a wider set of forces and systems shaping the conditions of health for many people.

#### **2** Why does this issue matter?

- "Ensuring health and well-being for all" means working to support those most vulnerable to unequal access to health services and treatment. It is important to understand how access to health care and **health literacy** are impacted by the social, cultural and environmental influences of our lives. The following section will illustrate the specifics of what we mean by good health and well-being.
- A safe and healthy birth for mothers and children

Giving birth can have many challenges and health risks, and this goal highlights the need for mothers and children to receive trained support to minimize the risk of complications or death during delivery.

#### • Living through early childhood

Children under the age of five are vulnerable to disease and **malnutrition**. With access to proper care, vaccinations and good **nutrition**, children can be better potrected against disease and early death.

#### Protection from preventable diseases

**Epidemics**, or rapid and widespread diseases, can be prevented and managed. Through quick and quality treatment, the risk of spreading contagious diseases can be reduced.

#### • Freedom from addiction

Treatment, education, and support are the best ways to prevent substance abuse in our communities, and it's important to improve access for all in need of these supports.



#### Knowing your body and your rights

Improving access to information and services related to sexual and reproductive health are key to improving health in general. When you can make informed and confident choices about your body, you're flexing your right to health and well-being. Ensuring the protection of these rights can help eliminate harmful practices such as **female genital mutilation.** 

#### Access to health care

Being able to find health services, vaccinations and information are essential to improving the health and well-being of our population. Ensuring safe, local access to these services is vital.

#### **B** Who and what are affected?

#### Children

Children are most at risk of malnutrition, underdevelopment and infectious diseases for many reasons, including poverty, poor health services and lack of treatment. The **neonatal mortality** rate refers to the likelihood of dying in the first 28 days of life. Between 2000 and 2015, this rate declined from 31 deaths to 19 deaths per 1,000 live births.<sup>1</sup> Improving treatment and access to medicine for children and their caregivers, educating individuals and communities and improving hygienic practices are the key to seeing this rate continue to decrease.

#### Women

Programs addressing health need to understand how unique barriers impact womens' and girls' access to health services, education and resources. Many women in the world sacrifice their education, waged work and well-being to care for their children and families. Inconsistent or unavailable treatments for women's health and **family planning** impact the overall health of women globally. While this goal seeks to ensure all women have access to health services in general, it specifically recommends women have access to sexual and reproductive health-care services including birth control, counselling and abortion or maternal services.

## "Communities and countries and ultimately the world are only as strong as the health of their women."

**Michelle Obama** Lawyer, Former First Lady of the United States of America

#### People living in unsanitary conditions

In 2012, an estimated 889,000 people died from infectious diseases caused largely by fecal contamination of water and soil and by inadequate hand-washing facilities and practices resulting from poor or non-existent sanitation services. In the same year, household and ambient air pollution resulted in some 6.5 million deaths.<sup>2</sup> From simple hand washing skills to having clean air to breathe, sanitation and hygiene are critical to our health, survival and well-being.

According to the Center for Disease Control, basic sanitation means being able to safely dispose of human waste (feces and urine), and maintaining hygienic conditions through services such as garbage collection, industrial or hazardous waste management and wastewater treatment and disposal. Investments like these take national level policies with local level investments and education opportunities to prevent unnecessary losses of life due to unsanitary conditions.

#### People suffering from mental health issues and substance abuse

Mental illness occurs across regions and cultures. The most common mental health issues are anxiety and depression, which can lead to death by suicide. In 2012, an estimated 800,000 people worldwide died by suicide, and 86 per cent of them were under the age of 70.<sup>3</sup> Globally, death by suicide is the second leading cause of death among those between the ages of 15 and 29.<sup>4</sup> Making space to discuss mental health issues and identify strategies for support and treatment is important to reducing stigma and highlighting the network of support available.

Substance abuse, or the overindulgence in or dependence on an addictive substance, especially alcohol or drugs, remains a burden for the health sector. Treatment is also inconsistent: only about one in six people worldwide suffering from drug-use disorders received treatment in 2013.<sup>5</sup> Unlike infectious and communicable diseases, mental health and substance abuse can be harder to detect, for individuals and their communities alike, making them a subtler burden on our health and well-being.

#### What needs to be done?

#### Water, sanitation and hygiene

From dengue to diarrhea, poor sanitation and hygiene are the cause of a number of diseases for vulnerable individuals and communities. More than 33 per cent the world's population practice open defecation or lack adequate sanitation facilities.<sup>6</sup> Improving access to clean water, promoting hygienic practices such as hand washing, waste disposal and food preparation can help reduce the risk of diseases and infections. Building proper latrines and fixing old ones are also great ways to improve our waste disposal so that we don't contaminate our communities.



#### Health care workers

From HIV-AIDS to mental health, one of the biggest barriers to health treatment of vulnerable populations is stigma, or negative attitudes and behaviours, towards people suffering from a particular condition. Fear of infection, discrimination, violence and/or shame can impact a person's willingness to seek treatment for their disease. Changing behaviours and attitudes towards acceptance, inclusion, respect and equal treatment can happen when we talk about the issues in a way that doesn't judge or criticize someone with a disease or illness. One way to do this is to increase the number of trained healthcare professionals able to work with vulnerable and stigmatized individuals and communities to increase safe access to healthcare.

#### Mental health

Addressing mental health should focus on wellness, social determinants of health and resilience for vulnerable individuals and communities. One of these vulnerable groups are refugees and asylum seekers. Moving from your home country as a result of war, oppression, violence or **famine** can severely impact mental health. Post-traumatic stress disorder, anxiety, culture shock and depression can all contribute to poor mental health and difficulty settling in a new community.

#### Gender

Part of the process of empowering women in their health is improving access to health-related resources. At the crossroads of sanitation, sustainability and empowerment lies the sanitary pad. For many women in developed and developing countries alike, sanitary pads and other feminine hygiene products like tampons and menstrual cups are out of reach. In India, only 16 per cent of women use sanitary pads during menstruation.<sup>7</sup> One example of an organization taking action is Saathi, who use sustainable and local agriculture to harvest banana fibers to create sanitary pads for distribution in rural communities. Take a look at the work Saathi is doing in this video.<sup>8</sup> Through education and awareness, **stigma reduction** around female hygiene and sanitation can help improve access and discussion about these issues.

#### Environmental

**Climate change** affects social and environmental determinants of health, including clean air, safe drinking water, sufficient food and secure shelter. Increased drought, high temperatures, allergies and increased natural disasters can contribute to transmission of diseases and poor health practices. As a cycle, poor health practices, such as improper human waste disposal, can contribute to the degradation of our ecosystems. From policies to individual choices, there is a lot we can do to reduce our emissions and improve cleaner energy use and waste disposal. Raising awareness and sharing information about the impacts of climate change on human health can assist to reduce health vulnerability and environmental degradation. In response to the relationship between climate change and our health, the World Health Organization asked choreographer Marie Elangovan to use traditional Indian Bharatanatyam dance to advocate for more action and attention to these issues.<sup>9</sup>



## **CONNECTION TO THE OTHER GOALS**



To build the foundation of healthy people and communities, a number of building blocks need to be in place. Our health benefits from the health of our environment. When we pollute our air, water and land, it impacts our health through disease, drought and desalination—just to name a few.



Making health care accessible is also a mission of **gender equality**. Improvements to health care and health literacy must support the particular needs of vulnerable populations such as women and transgender people.



Poor health is related to the outcomes of the **poverty cycle**. If we can address the causes of poverty by improving access to housing, stable income and nutrition, we can work towards improving the health of our bodies.

You cannot have maternal health without reproductive health. And reproductive health includes contraception and family planning and access to legal, safe abortion.

> **Hillary Clinton** Former US Secretary of State





#### **Consequences of inaction**

- Our health is linked to so many elements of our lives and our planet. If we don't address the pressing issues of climate change, poverty, gender equality, nutrition or **sustainable agriculture**, we will be putting our health, our planet's health and the future generations' health at risk.
- If we don't address the causes of poor health like clean water, sanitation, environmental degradation, gender inequality, poverty and overconsumption, we will see unnecessary loss of life and ecosystems in our lifetime.
- If we don't strengthen our research, education and awareness, we won't be able to protect ourselves and our communities from dangerous or unhealthy attitudes and behaviours contributing to poor health.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- **3** How has this problem changed over time? Where do you see it going in the future?
- **4** What questions do you still have?

## **3** GOOD HEALTH AND WELL-BEING



## **RESOURCES**

#### How to take action

- **Try walking the talk.** Healthy living starts with you. Learn what healthy living is all about, what kinds of food you need to eat, what kinds of fun things you can do to exercise and get your community involved. Start a local sports day. Challenge your friends to make the healthiest lunch they can. Have a "Jumping Jacks for Charity" day. The sky is the limit!
- **Get involved in a community garden.** Get your green thumbs growing and join a community garden to grow some food to support yourself and your community. Learn what grows best in your area and how you can incorporate sustainable agriculture into local farming practices.
- **Run around and give back.** Join a charity run and give back while you get healthy. Find a cause that speaks to you, or start your own for "Healthy Living Mad Dash" and support a local health charity.
- **Get informed.** Infectious diseases can spread quickly, but misinformation can spread even faster. When reports of outbreaks happen, make sure you check your sources and get savvy on what the facts are and how you can protect yourself and help inform others.
- **Assess your school's nutrition.** Students and teachers can work together to assess the nutrition levels of food available in their school using <u>this tool</u>. For even more information and resources, take a look at the <u>Manitoba Healthy</u> Food in Schools page.
- **Start a school garden!** This will help improve nutrition, food security, good health, sustainability, and teach students new skills. You can find all the information you need to get started here.
- **Host an assembly.** Help your students educate the rest of the school on the importance of Goal 3 for themselves and the world!
- **Start a fundraising campaign.** Support good health in your community or a community overseas. Show your students their actions matter and can make a difference around the world!
- Support local and international organizations working to promote good health and well-being around the world. You can start locally with an organization like <u>Food Matters Manitoba</u>, or raise funds for international NGOs working to improve health around the world. A good starting point is <u>MCIC's list of member organizations</u> with links to their websites. You can also contact us anytime to get information on health projects, or organizations to support or connect with on these issues.



#### **Educational resources**

- The World's Largest Lesson page for Goal 3 has downloadable comics, posters and lesson plans <u>here</u>. You can also download a lesson called <u>A Healthy Start</u> (ages 8-11). This lesson helps students explore the ideas of good health and well-being.
- Check out the Centre for Addiction and Mental Health's <u>resources</u> on discussing and teaching about mental health and substance abuse with students.
- Check out UNICEF's Kid Power lesson resources. Select "lessons" to choose activities by grade. For example, there are lesson plans for Grades 6 to 8 on exploring the impact of malnutrition or learning about key nutrients for good health.

Saving our planet, lifting people out of poverty, advancing economic growth...these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all.

> **Ban Ki-moon** Former Secretary-General of the United Nations



## **CASE STUDIES**

#### Centre for Addiction and Mental Health (CAMH)

In order to address the hardships of relocation experienced by refugees to Canada, the Centre for Addiction and Mental Health (CAMH) in Toronto is working to improve community support for newcomer mental health through their Refugee Mental Health Project. The intention is to help health service providers understand the specific needs of refugee mental health to promote training, tools and resources to better support newcomers to Canada.

#### **2** World Health Organization (WHO)

The World Health Organization (WHO) is the UN specialized agency concerned with international public health. WHO came to be on July 22, 1946 when 61 countries signed its constitution. WHO has become a leading force in eradicating small pox, as well as addressing communicable diseases, sexual and reproductive health, nutrition, food security and the development of reports, briefs and networking in the field. On their website you can search by country, program or topic of interest to learn more about health efforts around the world.<sup>10</sup>

### **3** Make Music Matter

The Make Music Matter program in Rwanda has developed a project to use music production as a way to educate Rwandan youth and their community about the health risks of HIV-AIDS. By putting preventative messages to a beat, the program hopes to help increase awareness about HIV-AIDS prevention in post-conflict and extreme poverty areas.<sup>1</sup>

## **4.** United Church of Canada

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The United Church of Canada works with nutritional and health services to offer vulnerable children and babies support through health education in Palestine. Through the well-baby services provided through this organization, participants are learning to identify and treat early childhood illnesses, particularly malnutrition and anemia, for over 10,000 children living in the highly vulnerable areas of Rafah, Darraj and Shijaia.

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#### Mennonite Economic Development Associates



Mennonite Economic Development Associates is working in Tanzania to help vulnerable populations get insecticidetreated bed nets using an electronic voucher system, helping reduce the high rate of malaria. The e-voucher system will also give increased access to vitamin A-fortified sunflower oil and clean cook stoves through sustainable commercial channels, to help combat nutrient deficiency and hypertension.

#### 6

### Canadian Multicultural Disability Centre

Canadian Multicultural Disability Centre is working in Zimbabwe to build a clinic in the Chirasauta Community in the Chikomba District in Zimbabwe. This project was developed over three years to improve available health services for over 1,000 households in an impoverished rural area by building a clinic. The maternity ward will reduce infant mortality and morbidity rates, especially through the supply and installation of two elevated, 5,000-litre tanks and roofing material for the clinic.

#### **End notes**

- <sup>1</sup>https://sustainabledevelopment.un.org/sdg3
- <sup>2</sup>https://sustainabledevelopment.un.org/sdg3
- <sup>3</sup>https://sustainabledevelopment.un.org/sdg3
- <sup>4</sup>https://sustainabledevelopment.un.org/sdg3
- <sup>5</sup>https://sustainabledevelopment.un.org/sdg3
- <sup>6</sup>http://www.who.int/mediacentre/factsheets/fs392/en/
- <sup>7</sup>https://borgenproject.org/feminine-hygiene-women-india/
- <sup>8</sup>https://www.youtube.com/watch?v=3BIc4ZoS5VY
- <sup>9</sup>https://www.youtube.com/watch?v=BUiniY8kAQ4
- <sup>10</sup> http://who.int/en/
- <sup>11</sup>https://www.youtube.com/watch?v=Ptopi7LIWjI

# **4 QUALITY EDUCATION**



## ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

In many parts of the world, women, people with disabilities, Indigenous People and victims of conflict do not have access to quality education. This goal aims to ensure everyone has access to basic education so we can understand the world around us, critically reflect on what we see, do and hear and make informed choices about our health and well-being. This goal also aims to improve school facilities, increase the number of training and vocational opportunities for people and increase the number of trained teachers available to provide a safe and positive learning environment.

## TARGETS

- By 2030, Goal 4 intends to provide early childhood, primary and secondary education for all.
- For adults, the goal is improvements to technical, vocational and job skills education, including university.
- Eliminate gender disparities and ensure equal access for vulnerable populations.
- Ensure all youth and a substantial amount of adults achieve literacy and numeracy.
- Promote global citizenship topics in all subjects including sustainable development, sustainable lifestyles, human rights, gender equality and peace through education.
- Build and upgrade education facilities that are safe, inclusive, non-violent and effective learning environments.
- Increase the number of qualified teachers through training and education investment.

"A welleducated mind will always have more questions than answers."

#### **Helen Keller** American author, activist



## **LEARNING OBJECTIVES**

- Learners will understand the role of education and lifelong learning (formal and informal) as integral to sustainable development.
- 2 Learners will understand the value of education as a public good, fundamental human right, and also as a basis for empowerment.
- **3** Learners will understand the role of education to help create a more sustainable, equitable and peaceful world.
- 4 Learners will be able to raise awareness of the importance of quality education for all and find ways to motivate others to take action on this issue.
- 5 Learners will be able to understand, identify and promote gender equality in education.

## **CURRICULUM CONNECTIONS**

#### Media

What are the big issues being reported in your community about education?

#### Environment

How can we turn education about the environment into action?

#### Poverty, wealth and power

How is access to education related to poverty?

#### **Indigenous Peoples**

What are the barriers and opportunities for Indigenous Peoples in education?

#### **Oppression and genocide**

How do conflict and oppression impact education?

#### Health and biotechnology

What can education do for health promotion?

**Gender politics** How is education a gendered issue?

#### Social justice and human rights

How are social justice opportunities and human rights impacted by education?

#### **Peace and conflict**

What is peace and global citizenship education about?

## THE BIG QUESTIONS

#### Where did it begin?

QUALITY EDUCATION

- The right to education is written in international law, in Article 26 of the Universal Declaration of Human Rights. Learning can be **formal** (in an institution delivered by trained teachers) or **informal** (occurring outside of a school setting, cultivating learning through conversation and experience).
- Education is a fundamental **human right** and is essential to understanding all other human rights. Being able to learn about the world around you promotes freedom, empowerment and understanding.
- However, more than 59 million children of elementary school-age are being denied the right to education. Sub-Saharan Africa accounts for more than half of all children worldwide out of school, 55 per cent of whom are girls.<sup>1</sup>
- The problem is that many millions of children and adults do not have access to education. The biggest reason people are deprived of education is **poverty**, in addition to **gender**, conflict, isolated populations, ethnicity and disability.

#### **2** Why does this issue matter?

#### • Education is the key

Education unlocks the potential for many other **SDGs** to be achieved. When people are able to access quality education, they are able to begin breaking the **cycle of poverty**, learn about sustainable living, make healthy choices and inform themselves and their communities about important issues.

#### • Education promotes gender equality

Education has the potential to significantly improve the well-being of women and girls. Having access to education can help girls and women increase their income, narrow wage gaps in and promote economic independence. When women are educated and have surplus income these increased resources also benefit their families and communities.

#### Education promotes environmentalism and sustainable development

Environmental education can help give individuals the skills needed to make changes to policies and practices in their community. Future farmers who pursue secondary education will have a strong foundation for implementing **sustainable agriculture**. It is also important to teach **sustainable development** topics like environmental protection, sustainable agriculture, human rights, **gender equality**, peace and **global citizenship** to get people talking and doing something about our present and future.



#### **3** Who and what are affected?

#### • Girls

Within education systems, women and girls continue to be discriminated against due to various political, religious, cultural and social beliefs and principles. Two-thirds of illiterate adults are women, and out of 59 million children out of school worldwide, more than half are girls.

#### Migrants, refugees and internally displaced people

People who are away from their home regions or countries often have difficulty exercising their right to education. Currently, 91,000 Syrian children registered with the UN High Commissioner for Refugees remain without access to formal education.<sup>2</sup> In addition to the Syrian Civil War, there are millions of migrant, refugee and internally displaced children who lack access to education. Poor infrastructure, inadequate resources and a lack of trained teachers are common limitations in refugee camps. It is often difficult to find education in their mother tongue while displaced or away from their home regions.

#### Persons with disabilities

An estimated 93 million children live with a moderate or severe disability.<sup>3</sup> In many countries in the Global South, disabled children are the most likely to be out of school compared to any other group. States are obligated to ensure that people with disabilities are not excluded from the general education system because of their disability, yet accessibility to buildings and the education system remains a barrier.<sup>4</sup>

#### Persons in detention

Detention can include people who have committed a criminal offence, people awaiting trial, illegal migrants, persons in health centres and detained children. People in detention are often denied their right to education before and during their incarceration. Education can also play a key role in their rehabilitation and reintegration into society.



#### 4 What needs to be done?

- Ensuring schools are safe and violence-free will help reduce the likelihood of girls dropping out. It also helps protect their right to learn without fear. Employing adequate teachers and helping them improve their skills through training can have strong impacts in the quality of education for girls. Focusing on the needs of the student and engaging the community helps involve diverse **stakeholders** to support high quality education for girls.
- To achieve this goal, we need to improve the quality of education and the number of children in schools. Some countries have done this by eliminating school fees, providing food at school, educating parents and improving resources and training for teachers. Enrollment increased by 51 per cent in Malawi after school fees were abolished.<sup>5</sup> Actions like these can help improve the quality of education and encourage enrollment, reducing barriers and allowing children and adults to access education.
- Physical accessibility, sanitation and learning materials need to be provided in formats that suit the needs of learners with different abilities, in order to improve education for disabled learners. Inclusive education is continuously evolving and teachers should be trained to encourage lessons that are inclusive, learner-centred and empowering.

## "Education is the most powerful weapon which you can use to change the world."

**Nelson Mandela** South African anti-apartheid politician



## **CONNECTION TO THE OTHER GOALS**



Investing in education is one of the greatest ways to break the cycle of poverty. When people have basic life and literacy skills, economies grow quickly and **poverty rates** decline. Strengthening the quality of education services and access is a huge step forward for **poverty reduction**.



For each additional year of school completed, a girl's wage can increase up to 25 per cent.<sup>6</sup> An investment in girls' education is an investment in the community by enabling more opportunities to involve diverse stakeholders and contributors to growth and development. Eliminating barriers to education is a mission of gender equality.



Improving the quality of education needs to include education about sustainability and our environment. Engaging students to think critically about the world around us and how our practices and policies have an impact on the environment will help sustain the momentum for change.



#### **Consequences of Inaction**

- Without access to a full education, girls' ability to learn essential life skills, learn about health and hygiene, avoid unwanted pregnancy and improve their income is deeply impacted. By not achieving equal access to education for all children, regardless of their gender, we are denying them a fundamental human right.
- When we don't include aspects of environmentalism and sustainable development in education models and systems, we miss the opportunity to educate future generations on the important issues of our time. Our ability to pass on important knowledge to improve how we engage with our environment and resources is then limited, hindering future generations.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- **4** What questions do you still have?

## " One child, one teacher, one book and one pen can change the world."

**Malala Yousafzai** Pakistani education advocate

## RESOURCES

#### How to take action

QUALITY EDUCATION

- **Host a documentary screening.** Find films that focus on quality education nationally or internationally. Invite classmates, colleagues and community members to join in on a creative learning experience.
- **Start an awareness campaign.** Explore the <u>Malala Fund</u> website for useful facts and figures. Use these to start an awareness campaign or initiative that focuses on educating others on the lack of quality education around the world.
- Work to achieve quality education in your own community. Focus on accessible supplies, accessible buildings and structures, sports equipment and educational opportunities for students.
- Help others understand how a lack of quality education affects everyone. Design a campaign to give people the opportunity to explore their right to education and learn about others around the world who are denied this right.

#### **Educational resources**

- The World's Largest Lesson page for Goal 4 has downloadable comics, posters and lesson plans <u>here</u>. You can also download three separate lessons. A <u>Multilingual Treasure Hunt</u> highlights the difficulty some children face when education opportunities are not in their native language. <u>Children on the Move</u> explores how migration has and continues to affect everyone and gain a deeper understanding of what life is like for people who are forced to flee their homes. <u>The World is Not Equal. Is That Fair?</u> highlights the different types of inequality and helps students explore the impact inequality can have on the wider society and economy.
- Get involved with the Malala Fund and take a stand for girls' education with this student toolkit.
- Learn about the right to education and the journey of countries around the world to universal education through the Right to Education primer page.
- Learn more about gender equality in the classroom and explore ways teachers can help girls realize their full potential with UNESCO's A Guide for Gender Equality in Teacher Education Policy and Practices.
- Try out <u>Girls' Education in Afghanistan</u> from Oxfam. This activity includes a PowerPoint presentation, teacher's notes, lesson plan and an action plan. Targeted for ages 11 to 14, this activity allows students to briefly understand and experience what an Afghan school experience would be like.
- Additionally from Oxfam, try out <u>Developing Rights</u> (ages 11 to 14). This activity allows students to decide what human rights are important, encouraging critical thinking about their own rights and how young people around the world are claiming theirs.





- Support <u>National UNICEF Day</u>, helping children access quality education, by using these resources in your classroom.
- Visit <u>Global Campaign for Education</u> for lessons that focus on the right to education and the barriers that youth face around the world. Activities and lesson plans are available for students of all ages, from kindergarten to Grade 12.
- Learn more about inequalities in access to education from this UNESCO video explaining the lack of global progress.

## " It is time for parents to teach young people early on that in diversity there is beauty and there is strength."

#### Maya Angelou American poet and civil rights activist



## **CASE STUDIES**

#### Malala Yousafzai

When girls were prevented from going to school by the Taliban in her region in Pakistan, Malala Yousafzai spoke out about the right for education through her blog and a documentary. After surviving an assassination attempt, Malala became a global advocate for the millions of girls around the world being denied a formal education. She and her father started the Malala Fund to bring awareness to the social and economic impact of girls' education and raise their voices to demand change.

#### **2** United Nations Education, Scientific and Cultural Organization's (UNESCO)

At the international level, the United Nations Education, Scientific and Cultural Organization (UNESCO) works to transform lives through education. They know education is at the heart of their work around eradicating poverty, building peace and encouraging sustainable development. UNESCO actively promotes education throughout life as a human right, and that access to education must be matched by quality.

#### 3

#### Making Waves: Radio Based Learning

The Making Waves: Radio Based Learning project is piloting a new model of radio-based learning, known as Interactive Radio Instruction in the southern and northern axis of the city of Uvira in the Democratic Republic of Congo. By turning lessons into informative radio shows, this War Child program is helping 200 out-of-school girls in conflict areas access secondary school education.<sup>2</sup>

#### Canadian Organization for Development through Education (CODE)

The Canadian Organization for Development through Education (CODE) began the program Reading Ghana in 2015 to address the learning needs of youth in under-served communities. Primary school libraries are provided with highquality books and teachers have the opportunity for professional development. Access to resources and well trained teachers are key to ensuring students have the chance to stay on track with their education.





When girls are exposed to violence, they are at a greater risk of dropping out of school. To support the education of Syrian refugees and Lebanese girls, the Mennonite Central Committee established the Light and Hope program to help reduce drop-out rates for this vulnerable population. The project provides after-school support to schoolgirls, informal education in life skills development and informal education in language development for refugee girls not currently enrolled in school. The project also provided a five-day Summer Wellness Resiliency Camp that delivered recreational activities and trauma healing for girls most at-risk.

### Canadian Women for Women in Afghanistan

In 2016-2017, the organization Canadian Women for Women in Afghanistan developed a program to improve and promote reading and science education in the Herat Province. This project provided ten high schools in Herat province with School Starter Kits: a basic science lab, and a basic school library in a box. Using active learning methods, teachers are able to provide a stimulating classroom environment for students, increasing quality of education and student engagement.

#### **End notes**

https://www.unicef.org/education/bege\_61657.html

<sup>2</sup>http://www.jordantimes.com/news/local/ngos-urge-world-community-remain-engaged-syrian-refugee-plight

<sup>3</sup>http://www.right-to-education.org/node/110

<sup>4</sup>http://www.right-to-education.org/node/110

<sup>5</sup>http://www.borgenmagazine.com/education-in-developing-countries

<sup>6</sup>http://www.unwomen.org/en/news/in-focus/commission-on-the-status-of-women-2012/facts-and-figures

<sup>1</sup><u>https://www.warchild.ca/assets/documents/Interactive-Radio-Instruction.pdf</u>

## **5 GENDER EQUALITY**



### **ACHIEVE GENDER EQUALITY AND EMPOWER ALL GIRLS AND WOMEN**

**Girls just want to have fun...damental human rights.** When we examine our world through a gender equality lens, we can see that we have made many advances and we have come a long way in ensuring girls and women have the same opportunities as the boys and men in our world. However, we still have much work to do as many barriers for girls and women still exist today. This goal examines the ways women and girls are discriminated against in our world and how to put a stop to it. From ending violence and exploitation to empowering women, or protecting their mental, physical and sexual health, there are many areas to focus on if we are going to achieve this goal by 2030. Just like many of the other Sustainable Development Goals, gender equality is interconnected with the other goals —everyone's actions and support make the difference in achieving gender equality.

## TARGETS

- End all forms of discrimination against women and girls.
- Eliminate forms of violence and exploitation against women and girls in both public and private spheres.
- Eliminate harmful practices such as child or forced marriages and female genital mutilation.
- Recognize and value unpaid care and domestic work through public services, social protection and shared responsibility.
- Ensure full and effective participation for women in leadership and decision-making.
- Ensure universal access to sexual and reproductive health and reproductive rights.

Women's status in society has become the standard by which humanity's progress toward civility and peace can be measured.

#### **Mahnaz Afkhami** Founder and president of the Women's Learning Partnership

# **LEARNING OBJECTIVES**

- 1 Learners will understand the concepts of gender, gender equality and gender discrimination in addition to the current and historical causes of inequality in their own country and around the world.
- 2 Learners will understand the basic rights of women and girls, including their reproductive rights and their right of freedom from exploitation and violence.
- **3** Learners will understand the opportunities and benefits that exist with full gender equality, as well as the role of education and legislation in the empowerment process.
- 4 Learners will be able to recognize and question traditional perceptions of gender roles in a critical approach, while respecting cultural sensitivity.
- 5 Learners will be able to measure gender equality in their surroundings and then plan, implement and support initiatives to empower themselves and others who are discriminated against because of their gender.

# **CURRICULUM CONNECTIONS**

### Media

How does the media report on gender issues? How do you think this impacts the ways we talk about gender issues in society?

### Environment

How is climate change a gender equality issue?

### Poverty, wealth and power

How does the poverty cycle affect women uniquely? How does a lack of power or resources affect the lives of women?

### **Indigenous Peoples**

What are gender equality barriers and opportunities within Indigenous communities?

### **Oppression and genocide**

How are women and girls uniquely impacted by oppression and genocide?

### Health and biotechnology

What are important health issues facing women today? What policies and practices are needed to support them?

### **Gender politics**

What laws would you put in place to ensure gender equality? How would you monitor them?

### Social justice and human rights

How have women's social justice and rights changed over the course of history?

### **Peace and conflict**

How are women supporting peace and post-conflict reconstruction in our world?

# THE BIG QUESTIONS

### Where did it begin?

- This goal is rooted in our understanding of **gender**. It is important to understand that gender is the socially constructed and personally identified classification as either male, female or distinct from male and female such as people who are **gender neutral** or **transgender**. While sex is a biological label, gender is a social and cultural construct.
- Gender discrimination, or sexism, is the prejudice or discrimination based on a person's sex or gender. Gender discrimination can take on multiple forms, including stereotypes, sexist language, institutional sexism, 'glass ceilings', objectification, harassment and violence. These forms of discrimination can take place in our schools, our homes, our workplaces, our communities and our bodies.
- Social, economic and political discrimination against women has been fueled by **misogyny**, or the oppression of women beneath men. Harmful practices like **female genital mutilation**, honour killings, child marriages, unequal employment opportunities and pay, traditional gender roles, anti-abortion laws, violence, and abuse individually and collectively contribute to gender discrimination and inequality.
- Throughout history, feminism has become an important platform for the push for equal treatment of women in social, economic and political spaces. Feminism is a range of political, ideological and social movements that seek to define and advance the rights of women in the effort to achieve equality of the sexes. Feminist movements continue to campaign for women's right to vote, hold public office, earn fair wages, own property, receive education, have maternity leave and have equal rights in marriage. As actress Emma Watson said, "If you stand for equality, then you are a feminist."

### **2** Why does this issue matter?

#### • Women deserve to fulfill their potential

Women and girls represent half of the world's population, and therefore half of its potential. **Gender equality** is a fundamental **human right**. When we support women and girls, we are advancing other critical areas such as healthy societies, **poverty reduction**, quality education and well-being for all.

#### • The future is female

Raising the age of marriage and investing in education for girls can result in a rate of return of \$5 for every dollar invested. When we spend on programs that improve income-generating activities for women, the rate of return has been shown to be even higher at \$7 for every dollar invested.<sup>1</sup>

#### Violence and abuse are still a major problem

Thirty-five per cent of women worldwide have experienced physical and/or sexual intimate partner violence or nonpartner violence.<sup>2</sup> About 133 million girls and women have also experienced some form of female genital mutilation in the 29 countries in Africa and the Middle East where it most often occurs.<sup>3</sup>

### **3** Who and what are affected?

#### • Girls

In Sub-Saharan Africa, Oceania and Western Asia, girls still face barriers that prevent them from entering primary and secondary school. Thirty-two million primary-age girls and 98 million secondary-age girls are missing out on school.<sup>4</sup> Girls often face pressure to drop out of school in order to take care of the home and their family members, get married or bring in money for their family.

#### Women

Women in Northern Africa hold fewer than one in five paid jobs outside of the agricultural sector. Skills training, education and support for unpaid domestic labour are essential to economic, social and political empowerment. However, women are gaining more opportunities to hold positions of power. For example, 46 countries now have women in over 30 per cent of their seats of parliament.<sup>5</sup> Despite this, it is critical to go beyond the numbers to manifest actual change in the policies and practices of government and state support of gender equality.

#### Transgender Women

Transgender women, or people who are assigned male sex at birth but identify as a woman, are **disproportionately** discriminated against in our world. In 2013, transgender women of colour made up more than half of all LGBTQ homicide victims.<sup>6</sup> With higher rates of **poverty**, harassment, violence, poor health, job discrimination and isolation, transgender women one of the most vulnerable groups in the world today. Safe spaces, legislation, education and social supports are critical to the support and full inclusion of trans women and trans people.

### 4 What needs to be done?

- To achieve gender equality, we need political leadership, dedicated and increased resources, and partnerships
  throughout our society. Equality in education, employment, economic empowerment and leadership will all help to
  remove barriers for women, enabling women to be self-sufficient, supportive and safe from discrimination and genderrelated hardships. We need more women involved to help other women access resources and improve their lives and
  the lives of their families.
- Female workers earn 10 to 30 per cent less than their male counterparts, according to the International Labour Organization.<sup>2</sup> Fighting to decrease the gender pay gap is a key step, as is removing barriers that prevent women to reach leadership positions and implement gender equality policies.

- Increasing access to primary and secondary education has incredible effects in the lives of girls. They are less likely
  to get pregnant and/or married early-on, which will help them stay in school longer. Reducing barriers such as making
  school more affordable, reducing distances to school, developing girl-friendly schools and promoting and implementing
  strategies for marginalized and out-of-school girls can help them access long-term education, increase their income and
  support themselves and their families. This helps break the cycle of poverty. Countries like Benin and Bangladesh are
  offering free schooling or reduced tuition for girls, encouraging them to enter school and delay marriage.
- Companies need to break the **glass ceiling** for women and involve them in leadership. This will encourage more diverse perspectives, informed and inclusive decision-making, and higher returns on their investments. In the political realm, policies catered to the needs of women help the next generation of women achieve increased access and resources.
- Inreased education on harmful practices, cultural norms and forms of marginalization will us to better understand the
  issues women and girls face, the rights they have and the responsibility of our government and institutions to protect
  them. Additionally, for society at large, learning how to dismantle sexist, violent and discriminatory language, attitudes
  and behaviours will contribute to changing our social and cultural understandings of discrimination and gender.

Countries with higher levels of gender equality have higher economic growth.

Companies with more women on their boards have higher returns.

Peace agreements that include women are more successful.

Parliaments with more women take up a wider range of issues—including health, education, anti-discrimination and child support.

**Ban Ki-moon** Former Secretary-General of the United Nations



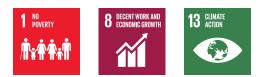
# **CONNECTION TO THE OTHER GOALS**



Globally, women and girls need increased access to health education, along with sexual and reproductive services and resources. Reducing barriers for women to ensure they understand and act on their rights supports the eradication of gendered health inequalities.



Two-thirds of illiterate people in the world are women. Increasing the quality of education and the number of students attending school requires a targeted focus on girls. Helping girls stay in school has incredible benefits for their future, the future of their communities and the future of our society as a whole.



Women comprise the largest percentage of the agricultural workforce; however, they often do not have control over land and production resources, which minimizes returns for their work. In addition, **climate change**-related disasters such as droughts and floods have serious effects on women farmers in particular in the Global South. Limited financial capacity can turn these shocks into a serious financial burden, continuing the cycle of poverty and increasing vulnerability. Women's increased agricultural production helps guarantee self-sufficiency.

### **Consequences of Inaction**

- If we fail to do something to ensure gender equality in all aspects of life, we are denying women a lifetime of opportunity, support and potential. When girls are deprived of health care or proper **nutrition**, their mortality rate increases, and without legal protection from child marriages, girls often have to sacrifice their education, health and economic opportunities.
- Without gender equality considerations in workforce policies, attitudes and behaviours, girls can be limited in their development and access to skills that will help support themselves and their community. The full participation of women in the labour force would add significant growth rates to national **gross domestic product**.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- **4** What questions do you still have?

# " I am not free while any woman is unfree, even when her shackles are very different from my own."

Audre Lorde Writer and activist

## **RESOURCES**

### How to take action

GENDER

- **Learn about gender equality in your community.** How are people in my community experiencing the effects of gender inequality? How might a lack of gender equality affect me or others in my community now, or in the future? How might it affect others around the world? Take action based on what you discover.
- Start a social justice or gender equality group in your school to work on these issues.
- Join the HeForShe campaign. Use their materials to plan and promote your own equality events. HeForShe is a project of UN Women dedicated to gender equality, and offers action ideas, resources and information.
- **Challenge sexist language .** We can make advances in gender equality when we challenge sexist and gender-biased language, especially in the classroom. Ask the speaker to think about how their comments reinforce gender stereotypes. The Internet should also be a safe space for everyone. Enlist your friends and followers on social media to send messages of support to victims of online bullying. Challenge your unconscious biases and assumptions that can contribute to barriers for equal opportunity.
- **Talk about health issues**. It shouldn't be shameful. Talk about women's hygiene and sexual health topics to help others see them as concerns that affect us all. Your health is your concern, so insist that doctors and health professionals address you directly. Be sure to exercise your right to access sexual and reproductive health services.
- **Teach peace.** Encourage your students to stand up to violence and bullying. Check in with people and ask if they need help. It may offer a potential victim a way out of a dangerous situation.
- Be encouraging. Encourage female students to stay in school, and look for ways to empower female colleagues.
- **Learn about the issues**. Join a cause like The Malala Fund and #HeforShe to take a stand for gender equality and learn how to take action in your school, your community and the world.

### **Educational resources**

- The World's Largest Lesson is a series of lesson plans designed to help teach the Global Goals and take action. This lesson takes students through the basic ideas of gender equality and contributes to a worldwide survey called <u>From Where I</u>
   <u>Stand</u>. In this survey, students identify gender ratios among their community leaders and draw out the results. Then, upload your community's data and be counted on the world map. Students can compare results from around the world.
- The Malala Fund's student tool kit has great ideas to learn, engage and raise your voice for gender equality.
- The <u>UN's Guide for Gender Equality</u> has great resources for teachers to learn about gender equality in the classroom as well as developing instructional materials that break gender stereotypes and teach positive attitudes about gender.
- In order to provide a safe and welcoming learning environment for all students, as well as helping students understand the full spectrum of gender identity, it is important to discuss transgender and gender non-conforming identity and issues in schools and classrooms. The National Center for Transgender Equality has a <u>resource page</u> for questions and terminology related to transgender issues.
- The <u>Gender Equity Activity Book</u> is a student-oriented selection of activities that focuses on detailed and easy to use activities for teachers and students. Activities include topics like stereotyping, sexual harassment, language, employability, classroom equality, gender and technology.
- Explore lesson plans on gender equality for various ages using the <u>Teach UNICEF website</u>. You can search by topic, age and activity type.
- Check out this list of <u>downloadable lesson plans</u> on gender equality from the BC Teacher's Federation.
- Here are some <u>lesson plans</u> from the United Kingdom focused on equal rights and taking action for equality.

## "It is revolutionary for any trans person to choose to be seen and visible in a world that tells us we should not exist."



# **CASE STUDIES**

### Malala Fund

The Malala Fund wants to see a world where every girl can complete 12 years of safe, quality education. Through investments in programs and advocacy work at local, national, and international levels, the organization, developed by Nobel Peace Prize winner Malala Yousafzai, seeks to amplify the voices of girls and help them reach their full potential through education. In Northern Nigeria, the organization has helped establish community-supported safe spaces to assist girls out-of-school learn essential literacy, numeracy and livelihood skills by reducing social and economic barriers to education.

### **2** HeForShe

HeForShe is a **solidarity** campaign initiated by UN Women fighting for gender equality through the fundamental belief that gender equality is not just a women's issue, it is a human rights issue.<sup>8</sup> From campaign to action, the movement addresses gender equality in the topics of education, health, identity, work, violence and politics. Bringing gender equality into everyday life, the campaign is helping to spread awareness and encourage informed action all over the world.

### **B** Canadian Physicians for Aid and Relief

In Dibate, Ethiopia, Canadian Physicians for Aid and Relief started a training program to encourage women-led community **food security** and nutrition. They are using the Farmer Field School approach to include education and experience in entrepreneurial support to improve savings and marketing practices. The focus of the program is to strengthen women's control over cash and resources, and improve nutrition at the household level.

### MATCH International and World University Services of Canada

In Malawi, girls and women continue to face many obstacles on their path to acquiring education. Many menstrual age girls in Malawi do not attend school for three to five days a month because they lack sanitary products. This means that at menstrual age, girls miss up to five school days a month, which translates to 25 per cent of their monthly schooling. For this reason, MATCH International and World University Services of Canada have invested in community solutions for these gendered barriers preventing education for girls in Malawi. The provision of locally made, reusable sanitary pads helped girls in the project impact schools of Dowa improve retention, performance and overall completion of education.

### **MATCH International Women's Fund**

Women living on or near Sri Lanka's tea plantations are among the most disempowered and marginalized in the country. The MATCH International Women's Fund is helping to build the confidence and self-esteem of women through increased leadership training and financial literacy as means to increase their role within the home, within the workplace and within their community.

### The Marquis Project

The Marquis Project is currently assisting child-headed households and marginalized young women and girls by facilitating their participation in the local **market economy**. The program will help increase market intelligence and build self-employment skills among the participants. It will also act as a catalyst to increase local capacity through a combination of **microenterprise**, agro-production and vocational training, mentorship, and **microcredit** development.

### **End notes**

http://www.un.org/sustainabledevelopment/wp-content/uploads/2018/09/Goal-5.pdf <sup>2</sup><u>https://www.un.org/sustainabledevelopment/wp-content/uploads/2018/09/Goal-5.pdf</u> <sup>3</sup>https://www.malala.org/girls-education <sup>4</sup>http://www.un.org/sustainabledevelopment/gender-equality/ <sup>5</sup>http://www.glaad.org/sites/default/files/understanding-issues-facing-transgender-americans.pdf <sup>6</sup>https://www.oas.org/en/iachr/reports/pdfs/violencelgbtipersons.pdf <sup>7</sup>http://www.heforshe.org/en

# **6 CLEAN WATER AND SANITATION**



### ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

**Water, water everywhere?** Well, not quite. Improving access to clean drinking water, sanitation and hygienic facilities needs to be addressed for a large portion of our world. This goal not only focuses on human consumption of water, but the quality and sustainability of water resources worldwide. This goal addresses access to water, managing our impact on water sources, protecting our ecosystems and supporting our communities to improve sanitation management.

# **TARGETS**

- Ensure that everyone has access to safe and affordable drinking water.
- Ensure that everyone has access to adequate sanitation (safe sewage disposal and good waste management), as well as public education on healthy hygiene habits.
- Monitor and reduce contamination of water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, and increase recycling and safe reuse of water.
- Improve water use, developing new systems and resources to reuse it and address water scarcity.
- Increase awareness among communities to involve them in water and sanitation management.
- Protect and restore water-related ecosystems including mountains, forests, wetlands, lakes, rivers and aquifers.

Although we take it for granted, sanitation is a physical measure that has probably done more to increase human lifespan than any kind of drug or surgery.

### **Deepak Chopra** Author and public Speaker



### **LEARNING OBJECTIVES**

- Learners will understand the causes, effects and consequences of water pollution and water scarcity around the world.
- 2 Learners will understand unequal water distribution and the lack of access to safe drinking water and sanitation facilities.
- **3** Learners will gain an understanding of integrated water resource management and other strategies for ensuring the availability and sustainable management of water, sanitation and natural-disaster management.
- 4 Learners will communicate and participate in strategies and activities that help reduce and prevent water pollution, ensure water access and implement water saving measures.
- 5 Learners will be able to question socio-economic differences and gender disparities in the access to safe drinking water and sanitation.
- **C** Learners will be able to contribute to water resource management and reduce their water footprint at the local level.

# **CURRICULUM CONNECTIONS**

### Media

How are water issues reported in the media? What angle do you think is important to focus on?

### Environment

What are the main water sources in your community? What are the biggest challenges to water quality and quantity? What are the biggest threats to our world's water sources?

### Poverty, wealth and power

How is access to clean water a poverty issue? Locally? Nationally? Internationally?

### **Indigenous Peoples**

What are the challenges for Indigenous People regarding access to safe and clean water? How are individuals and communities taking a stand?

### **Oppression and genocide**

How has control over water been used as a tool of oppression? How have people resisted this oppression?

### Health and biotechnology

What technologies have helped ensure access to water? How have these advances helped efforts to get clean water?

### **Gender politics**

How is access, or lack of access, to water and sanitation a gendered issue?

### Social justice and human rights

How are people around the world exercising their right to water?

### **Peace and conflict**

How do people get clean water in times of conflict? What might some barriers be? What environmental impacts to water are caused by conflict?



# **THE BIG QUESTIONS**

### Where did it begin?

- Over two-thirds of Earth's surface is covered by water. However, as our population grows, we are putting increased pressure on our planet's freshwater resources through our activities and consumption.
- One of the biggest problems is **water pollution**. Pollution happens when substances build up in our water to such an extent that they cause problems for animals, people and our ecosystems. Human activity causes waste, which can severely impact our water ecosystems. Sewage, fertilizers, wastewater, chemical waste, radioactive waste, oil and plastics can end up in our waterways if we don't manage them properly.
- Insufficient water caused by pollution, conflict, distance to water sources, overuse of water and drought impacts our lives and the health of our planet. When there isn't enough clean water to use, health, resistance to disease, hunger and hygiene are all affected and can hinder a person's ability to escape the cycle of poverty.
- Warming temperatures, changes in precipitation, runoff and rising sea levels, erosion, drought and **salinization** are becoming large problems for our water resources because of climate change. For the sake of our society and our planet, we need to protect water sources.

### **2** Why does this issue matter?

#### • Access to clean water is still an issue

Around 1.8 billion people are using a source of drinking water that has fecal contamination, and 2.4 billion people lack access to basic sanitation services such as toilets or latrines. **Water scarcity**, or the lack of sufficient available water resources to meet our needs, affects more than 40 per cent of the global population.<sup>1</sup>

#### Our water is stressed

37 per cent of countries are experiencing high to extremely high levels of **water stress**, including Cyprus, Jamaica, Qatar, Singapore and the United Arab Emirates.<sup>2</sup> When water stress occurs, demand for water exceeds the available amount during a certain period. This can deteriorate the quantity and quality of freshwater resource through acquifer over-exploitation, pollution or the drying out of rivers.

#### We're the problem and solution

Environmentally, more than 80 per cent of wastewater resulting from human activities is discharged into rivers or seas without any treatment, leading to various forms of pollution.<sup>3</sup> When we manage our water sustainably, we can improve our food and energy production, preserve our water ecosystems and their biodiversity and take action on climate change.



### **3** Who and what are affected?

#### Children

Diseases related to water and sanitation are among the major causes of death in children. More than 800 children die every day from diarrheal diseases linked to poor hygiene.<sup>4</sup> In addition, children are often responsible for fetching water to use in their homes, often making day-long trips and sacrificing their education to support their families.

#### Women

In many countries, collecting water is women's work. Much of their time is spent finding adequate water resources, which can take time away from paid work or education. At home, school, or work, lack of adequate sanitation can impact health, safety and dignity for many women. A lack of access to water and sanitation can make it hard for women within a cycle of poverty to escape as they may not be able to attend school or earn an income.<sup>5</sup> This lack of access can heighten the **double burden** or **dual burden** effect that women in the Global South often face.

#### Indigenous Communities

Many Indigenous communities do not have access to clean water and sanitation. The Neskantaga First Nation in northern Ontario has had a boil-water advisory, meaning water must be sterilized before drinking, for more than 20 years. About 73 per cent of First Nations water systems are at high to medium risk of contamination, with more than 160 water advisories in nearly 120 First Nations communities in Canada.<sup>6</sup> Investment in sanitation and water purification are a high priority to ensure the health and well-being of Indigenous Peoples on and off of reserves.

#### Ecosystems

Water pollution is catastrophic for our water ecosystems. Close to 40 per cent of America's rivers and 46 per cent of America's lakes are too polluted for fishing, swimming or aquatic life.<sup>7</sup> In Canada, nearly all 167 **sub-watersheds** are currently subject to some form of environmental pollution, some with multiple threats, and more than half of these sub-watersheds have experienced a significant loss of ecosystems.<sup>8</sup> When we are careless with our disposal of waste, when we overconsume, when we introduce chemicals and waste into our water supply, when we disrupt a land's natural environment, or there is an occurrence of invasive species, our environment pays the price. Organisms die, food chains are disrupted and ecosystems can be destroyed.



### 4 What needs to be done?

- Progress has been made to increase access to clean drinking water. In 2015, 6.6 billion people, or 91 per cent of the population, used an improved drinking water source, an improvement from 82 per cent in 2000.<sup>9</sup> Adopting an integrated water resource management approach helps promote coordinated efforts to develop and manage water resources to maximize their social and economic benefits while ensuring the sustainability of our ecosystems.
- In 2015, an estimated 663 million people were using unimproved water sources or surface water, and in 2012, it was
  estimated that 1.8 billion people were exposed to drinking water sources contaminated with fecal matter.<sup>19</sup> Investing in
  wastewater treatment can help improve ecosystem health and improve the quality of water we drink and use daily.
- Ongoing access to safe drinking water and adequate sanitation services are some of the most effective ways to prevent disease and improve human health.
- Integrating a gender-sensitive approach to water management can have a positive impact on the effectiveness and sustainability of interventions to conserve water resources. Involving different genders in the design and implementation of interventions can lead to new solutions for water problems which can also improve gender equality, clean water access for all, the effectiveness of government interventions and also make projects more sustainable.
- Identifying water scarcity and water pollution through education and awareness can help fight ignorance or passive positions on the issue. If we don't have enough clean water, we won't survive. This is every global citizen's issue. By challenging our community and leaders to remain accountable and active, we can address this issue by 2030.

" Anything else you're interested in is not going to happen if you can't breathe the air and drink the water. Don't sit this one out. Do something."

> **Carl Sagan** American astronomer and author



# **CONNECTION TO THE OTHER GOALS**



Access to sanitation facilities, closer proximity to clean water sources and improved resilience against droughts and floods impact all of us, but particularly impact women and girls. By finding solutions to water security and sustainability that are considerate of different gender experiences, we can improve our impact on the environment and empower our girls and women in the process.



Building sustainable cities, ending hunger, taking action against climate change and improving our health and well-being are all connected to accessing clean water. It is important to see how our actions and attitudes are interrelated with our environment and our water.

The water is female; water is life and so we as women must stand with the water. We stand in prayer and in civil disobedience. We stand because we must protect our children and grandchildren.

> **LaDonna Brave Bull Allard** Lakota historian, activist and founder of Standing Rock resistance camp



### **Consequences of inaction**

- If we do not do anything about our world's water qualities and quantities that are at risk, the costs will be huge for our society and our economy. Without proper sanitation infrastructure, worldwide, more than two million people will continue to die every year from diarrheal diseases. Poor hygiene and unsafe water are responsible for nearly 90 per cent of these deaths and mostly affect children.<sup>11</sup>
- When we fail to invest in water and sanitation, we are losing out on 4.3 per cent of sub-Saharan African GDP. The World Bank estimates that 6.4 per cent of India's GDP is lost due to adverse economic impacts and costs of inadequate sanitation.<sup>12</sup>
- Without better infrastructure and management for our water resources, millions of people will continue to die every year and there will be further losses in biodiversity and ecosystem resilience, undermining prosperity efforts towards a more sustainable future.

### **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- What questions do you still have?

# "We forget that the water cycle and the life cycle are one."

**Jacques Cousteau** French explorer and conservationist



# RESOURCES

### How to take action

- **Understand your impact.** Be careful what you throw down the drain or in the toilet—it all ends up in our oceans, rivers, and lakes—nobody wants to be swimming in your leftover paints or fertilizers.
- **Use water wisely.** Read this list of more than a hundred ways to conserve water from <u>Water Use It Wisely</u>. Challenge yourself and your community to try these practices and see the difference one person can make.
- **Shorten those showers.** We all have a part to play in using less water. Start by taking shorter showers. Make yourself a playlist of songs that is about six minutes long—when the music stops, time to get out of the shower. Turn off the tap between brushes and conserve water by reducing unnecessary flushing.
- **Get active and get vocal.** Learn about water scarcity and water pollution issues in your community and explore how water insecurity, privatization, or pollution are impacting your community. Identify what needs to change and who you can ask to help change that. Talk to your representatives and leaders and let them know you care about water. Join a cause like World Water Day or World Toilet Day and make some waves.
- **Talk about it.** Sanitation might be taboo or make people sheepish, but it is also important to break down the stigma, particularly for girls and women. Challenge people and help spread awareness about how water access affects everyone uniquely, yet is a fundamental right.
- **Get informed.** Understand the impacts of large corporations on water sources around the globe. Learn more about divestment efforts in your region and take a stand!
- **Participate in a water walk fundraiser awareness campaign.** For a period of time, track how much water you use and how long it takes you to get it. Or, put a policy in place where water must be filtered or gathered from a common area to simulate the challenges of collecting water every day. Learn more from this video.



### **Educational resources**

- The World's Largest Lesson page for Goal 6 has downloadable comics, posters and lesson plans <u>here</u>.
   <u>Clean Water For All</u> is a lesson plan (ages 8 to 14) that addresses water pollution through brainstorming, group work and physical demonstrations.
- National Geographic has several lesson plans, activities, and more covering various topics available <u>here</u>.
   Explore the site and search for water related units and lessons. Learn more about water pollution and see how it is impacting our planet in this video.
- Try <u>AMANZI</u>, an activity for all ages that takes 60 to 90 mins. AMANZI explores water access issues, allowing students to take on the role of families who experience barriers in accessing clean water.
- <u>Walking For Water</u>, an activity from Development and Peace, explores global disparity through unfair division of the world's resources. It is appropriate for all ages, in groups of 12 to 40 people.
- Use the <u>Students Rebuild</u>: Water Challenge curriculum kit to explore how water is a basic need and how millions lack
  access to clean water around the world. Built as a three-day lesson in partnership between Global Nomads Group, Charity
  Water, and Students Rebuild, the kit focuses on the global water crisis using activities such as a water walk, case studies
  and calculating personal water use.
- Discover Operation Water Drop, Operation Water Pollution, Operation Community Water Footprint, Operation
   Water Health or Operation Water Spirit, initiatives and kits developed by the Safe Drinking Water Foundation. These
   kits help students of all ages test their local drinking water, learn about water pollution, calculate how much raw water is
   used personally and communally, investigate waterborne illnesses and contaminated water and understand Indigenous
   cultures and beliefs related to water issues.
- Use the <u>Lake Winnipeg Water Stewardship</u> curriculum guide from Manitoba Education. The document guides educators through a variety of big ideas, supporting principles and phases that allow students to connect with water issues.
   Designed for Grade 8 students, this resource allows students to gain a deeper understanding of water systems and concepts related to sustainable development.



# **CASE STUDIES**

### Water and Sanitation for the Urban Poor (WSUP)

Organizations like Water and Sanitation for the Urban Poor (WSUP) are working with local water and sewage companies to improve water quality and access for Kenya's poor. In 2013, 52,000 low-income residents were able to benefit from the investment in new water pipelines located within the community, rather than on private land, allowing residents to save money, time and energy for other essential tasks.

### 2 Standing Rock Sioux Tribe Reservation

In 2016, members of the Standing Rock Sioux Tribe reservation and protesters gathered together to resist the development of the Dakota Access Pipeline.<sup>13</sup> Protesters were resisting the pipeline's close proximity to sacred land and its impact on the quality of water sources for the reservation. The protests were an act of environmental stewardship and an expression of concerns about the land and drinking water in the face of development.

### **3** Maarifa Centres

In Kenya, Uganda and Tanzania, Maarifa Centres are popping up in rural areas to help farmers share information and collaborate on solutions for drought and crop failure. In Swahili, 'maarifa' means 'knowledge'. These centres are built out of shipping containers and offer wi-fi and information and communication technology (ICT) to help farmers learn new techniques and manage water shortages. They also actively support the involvement of women in agriculture.

### 4. Emmanuel International Canada

Emmanuel International Canada is working in Malawi to provide clean water and improve sanitation in 92 rural communities. The project involves drilling eight boreholes, digging 24 shallow wells, rehabilitating 60 non-functional water points and constructing 3,576 improved sanitation facilities. Communities are being taught improved hygiene practices and will be helped to form water point committees.

### 5 Hope International Development Agency

Hope International Development Agency is working in the Philippines and Ethiopia to promote health and self-reliance for rural families to access clean water, benefit from agricultural training and increase their food security. Through health and hygiene education, communities are building their capacity to pipe in clean water and improve their resilience to climate change.

### **6** Canadian Lutheran World Relief

In collaboration with the Lutheran World Federation, Canadian Lutheran World Relief is working to improve the access and provision of potable water for South Sudanese refugees in the Tierkidi Refugee Camp in Ethiopia. This project seeks to increase access to potable water for approximately 12,000 South Sudanese refugees through the construction of three shaded water yards for two identified schools and connecting them to the permanent water system in Tierkidi Refugee Camp.

### **End notes**

- <sup>1</sup>http://www.un.org/sustainabledevelopment/water-and-sanitation/
- <sup>2</sup> http://www.wri.org/blog/2013/12/world%E2%80%99s-36-most-water-stressed-countries
- <sup>3</sup> http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/6\_Why-it-Matters\_Sanitation\_2p.pdf
- <sup>4</sup>https://www.unicef.org/media/media\_92918.html
- <sup>5</sup>https://www.youtube.com/watch?v=ZkStObhWjnl
- <sup>6</sup><u>https://canadians.org/fn-water</u>
- <sup>7</sup> http://eschooltoday.com/pollution/water-pollution/important-water-pollution-facts.html
- <sup>8</sup> https://www.theglobeandmail.com/news/national/canada-fresh-water-review-1/article35262579/
- <sup>9</sup> https://sustainabledevelopment.un.org/sdg6
- <sup>10</sup>https://sustainabledevelopment.un.org/sdg6
- <sup>11</sup> <u>http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/6\_Why-it-Matters\_Sanitation\_2p.pdf</u>
- <sup>12</sup> http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/6\_Why-it-Matters\_Sanitation\_2p.pdf
- <sup>13</sup> <u>http://standwithstandingrock.net/</u>

# 7 AFFORDABLE AND CLEAN ENERGY



### ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

**Energy is power:** power to do, participate and build. Energy also powers our economy, transportation, health and livelihoods. However, not everyone has access to this kind of power. Harnessing and harvesting energy resources, like wind, solar, water, oil and gas, impacts our environment and the ability for future generations to do the same. This goal seeks to establish sustainable energy systems that reduce our impact on the planet, and address energy inequalities that constrain human and economic development.

# TARGETS

- Ensure access to affordable, reliable and modern energy services through new infrastructure and better technology.
- Promote energy efficiency by developing technology that wastes less energy.
- Increase the use of renewable energy sources globally compared with other sources of energy.
- Work together to research and develop renewable and clean energy resources.
- By 2030, infrastructure and upgrades in developing countries will be expanded to supply modern and sustainable energy services to everyone.

Some solutions are relatively simple and would provide economic benefits: implementing measures to conserve energy, putting a price on carbon through taxes and cap-and-trade and shifting from fossil fuels to clean and renewable energy sources.

**David Suzuki** Canadian environmental activist



# **LEARNING OBJECTIVES**

- Learners will understand different energy resources both renewable and nonrenewable and their advantages and disadvantages regarding environmental, health, safety, and sustainability issues.
- 2 Learners will understand what energy is used for in different regions of the world.
- 3 Learners will understand how policies can influence the development of energy production, supply, demand and usage.
- 👍 Learners will be able to communicate the need for energy efficiency and sufficiency.
- 5 Learners will be able to apply and evaluate measures in order to increase energy efficiency and sufficiency in their personal spheres of influence.

# **CURRICULUM CONNECTIONS**

#### Media

What do you need to know to be critical of media stories about energy usage and conservation?

#### **Environment**

What are the impacts of energy overconsumption on our environment?

#### **Poverty, Wealth and Power**

How is energy usage related to the poverty cycle?

#### **Indigenous Peoples**

What are the experiences of Indigenous Peoples in relation to energy development?

#### **Oppression and genocide**

What happens to energy supplies during times of conflict?

#### **Health and biotechnology**

How are health and technology impacted by energy consumption?

**Gender politics** How is energy usage a gendered issue?

### Social justice and human rights

Should energy access become a human right?

#### **Peace and conflict**

What are some examples of conflict and resolution over energy resources?



## **THE BIG QUESTIONS**

### Where did it begin?

- The central issue surrounding our energy crisis revolves around the concern that the world's demand for natural resources is greater than the supply that we have. It takes hundreds of thousands of years to replenish the supply of **fossil fuels** we have been using to power our cars, charge our phones, and light up our cities. We use fossil fuels, such as coal, oil, or gas, through combustion to make power. At the same time, this combustion process generates large amounts of greenhouse gases and other kinds of pollution.
- Overconsumption, overpopulation, poor infrastructure, unexplored renewable energy options, energy wastage, natural disasters, and political events all contribute to imbalances in our energy supply and the deterioration of our ecosystems to obtain and dispose of these resources.
- By-products of energy use like CO<sub>2</sub>, oil spills and greenhouse gases accelerate climate change and impact the wellbeing of our planet and its population. If we don't develop and use a sustainable and stable energy supply, countries will not be able to power their economies.
- The solution to ensuring we have enough energy lies in **renewable resources**. The rise of modern day environmental movements campaigning for these renewable energy resources began in the 1960s and 70s. Renewable resources are derived from resources that can be replenished sustainably and with less negative environmental impacts, such as hydro, solid and liquid biofuels, wind, sun, geothermal and marine sources.
- A non-renewable resource is a resource that cannot be readily replaced by natural means on a level equal to its
  consumption. Fossil fuels like oil, natural gas, and coal are not sustainable because they take billions of years to make.
- Our global total renewable energy consumption has increased slowly, from 17.4 per cent in 2000 to 18.1 per cent in 2012. More telling is the fact that modern renewable energy consumption, which excludes solid biofuels used for traditional purposes, grew rapidly, at a rate of 4 per cent a year between 2010 and 2012, and accounted for 60 per cent of all new power-generating capacity in 2014.<sup>1</sup>

### **2** Why does this issue matter?

#### • Energy needs to be cleaner

Without access to clean energy sources in the home, the number of people relying on polluting fuels and technologies for cooking, such as solid fuels and kerosene, has increased, reaching an estimated three billion people. More than four million people die prematurely from illnesses caused by household air pollution, often from wood- or solid fuel-burning stove.<sup>2</sup> In addition, fuel gathering consumes a considerable amount of time for women and children in particular, taking away from school and work. Education and community level programs that help design and implement healthy fuel alternatives are essential to addressing this risk.



#### Energy needs to be more affordable

Alternatives to fossil fuels are essential to reducing our carbon footprint and the improving the health of our planet. However, the cost for governments and communities transitioning and developing new energy infrastructure, such as photovoltaic panels and wind turbines, can act as a barrier to implementing them in low-income situations.

#### • Energy needs to be more reliable

Blackouts are a daily occurrence in many countries in the Global South, where electricity generating capacity is often underfunded and infrastructure may be poorly managed. When demand is accurately forecasted and the equipment and infrastructure needed to manage supply and access are maintained, we can ensure people won't be left in the dark.

#### Energy needs to be more sustainable

The world's population is growing, and people are seeking a higher standard of living. In order to supply this demand, we need to find ways of producing energy that creates less waste, lowers CO<sub>2</sub> emissions and reduces the negative effects of climate change.

### **3** Who and what are affected?

#### • The Environment

Greenhouse gases are emitted by natural processes and human activities. However, human-driven releases of greenhouse gases are likely the dominant cause of global warming since the mid-20th century. The impact of increased greenhouse gases in our atmosphere has contributed to a rise in annual temperatures, decreases in sea ice coverage, increases in drought from heat waves and lost **biodiversity** from warmer climates.<sup>3</sup> Close to home, Canada's northern ecosystems are particularly vulnerable to these changes. And what happens elsewhere on our planet ultimately impacts us all in the end.

#### The Global South

Over 1.2 billion people—one in five people of the world's population—do not have access to electricity. The majority are concentrated in about a dozen countries in Africa and Asia.<sup>4</sup> Another 2.8 billion people rely on wood, charcoal, dung and coal for cooking and heating, which results in over four million premature deaths a year due to indoor air pollution.<sup>5</sup> Regions with the greatest energy deficits—Sub-Saharan Africa and South Asia—need assistance improving energy access, reliability and sustainability. Doing this will help us ensure clean, efficient and affordable alternatives to health-damaging cook stoves and fires.

#### Women and Girls

The quest for reliable energy is a gendered issue. Without electricity, women and girls have to spend hours fetching water and more time cooking, clinics cannot store vaccines for children, many school children cannot do homework at night, and people cannot run competitive businesses. Women and girls are often largely responsible for food preparation in the home, and suffer most of the effects of indoor air pollution. Increasing energy access and reliability requires an understanding of how socio-cultural gender norms impact women and girls.



### 4 What needs to be done?

- At a national level, countries can accelerate the transition to affordable, reliable and sustainable energy systems by
  investing in renewable energy resources, prioritizing energy efficient practices and adopting clean energy technologies
  and infrastructure. Governments are already putting in place policies to reduce GHG across different sectors of the
  economy and in household use. The Pan-Canadian Framework on Clean Growth and Climate Change was implemented in
  2016 to support the Sustainable Development Goals to reduce Canada's emissions.
- Businesses need to maintain and protect ecosystems to be able to use and further develop hydropower sources of
  electricity and bioenergy, and commit to sourcing 100 per cent of operational electricity needs from renewable sources.
- Employers can reduce internal demand for transport by prioritizing telecommunications and incentivizing less energy intensive modes such as wind-powered trains over auto and air travel. Investors can invest more in sustainable energy services, bringing new technologies to the market quickly from a diverse supplier base.
- On an individual level, we can save our resources by reducing the amount of energy we use. We save electricity by plugging appliances into a power strip and turning them off completely when not in use, including computers. We can also bike, walk or take public transport to reduce carbon emissions.

The climate challenge illustrates how we have to change. The developing countries need more support and opportunities to develop and use clean energy. Because if the current situation continues, then the world will not be able to handle this burden.

#### **Gro Harlem Brundtland**

Prime Minister of Norway and former director general of the World Health Organization



# **CONNECTION TO THE OTHER GOALS**



When clean energy sources are limited, it is often women and children, particularly girls, who bear the brunt of gathering fuel and cooking for the family. In this way, addressing energy access and reliability, we are undertaking a mission of gender equality. Access to affordable and clean energy improves education, whether by powering classrooms or homes so children can study.



Through overconsumption and overpopulation, our industrial efforts for resource extraction are negatively impacting our **natural ecosystems**. Controlling our emissions are a means of reducing our climate impact. When we stay conscious of how we are contributing to greenhouse gases through our actions and policies, we are committing to safeguard the biodiversity and sustainability of our planet.



Building resilient infrastructure while undertaking sustainable industrialization incorporate a focus on sustainability, reduced emissions and renewable energy sources. How we develop, produce and consume goods is interwoven with how we produce and use energy.



### **Consequences of Inaction**

- With a growing population and increased standard of living, our consumption of energy is only going to go up from here. If we fail to curb our emissions and invest in renewable resources today, we will likely see ourselves facing an energy crisis like never before in the future. Reaching a point of peak oil consumption will result in the full depletion of this resource, causing incredible downturn for resource dependent industries. Additionally, we can expect to see economic downturn at local, national, and international levels as well as a rise in food costs.
- Environmentally, the sustained use of fossil fuels will only increase the impacts of climate change. Rising ocean levels, increased temperatures and increased extreme climate events will have negative impacts on the resilience of our ecosystems and the biodiversity of the species living there. And of course, what happens to our environment ultimately impacts us, making environmental inaction a singularly destructive force.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

Nature is inexhaustibly sustainable if we care for it. It is our universal responsibility to pass a healthy earth on to future generations."



### **RESOURCES**

AFFORDABLE AND CLEAN ENERGY

### How to take action

- **Reduce energy use.** Adopt energy-saving habits. Remember to turn off the lights when you leave a room. Another top tip is turning off your computer and unplugging electronics when they're not being used.
- **Stop the drop.** Reduce your water consumption by fixing any drips or leaks in your house. Turn off that tap between brushes. Conserving water helps reduce energy and carbon emissions.
- **Recycle.** Choice is our best tool to ending our energy crisis. If we choose to recycle, buy items with minimal and recyclable packaging, and dispose of electronics in an environmentally responsible manner, we can do our part to minimize our ecological footprint.
- Repurpose. It takes energy to produce, transport and house new products. Give your clothing or household goods a
  second chance at life by donating them to charity or exchanging with friends. Turn your t-shirts into rags, or donate
  your old toaster to a garage sale or organization in need. We can do our part to reduce waste sent to landfill sites while
  others benefit from our goods.
- **Plant for the planet.** When finding plants for your garden, choose ones that are well suited for the climate and uses less water. Even better, plant a tree and reduce the amount of CO<sub>2</sub> in the atmosphere.
- **Turn off what you're not using.** Look at how your classroom, school, and community use energy and explore what actions could help reduce energy used. Have one day a week where you use natural light in the classroom rather than electricity. Turn off individual printers and other equipment at night and on the weekends. Enable energy saving modes on electronics used in the classroom such as computers or tablets.
- Buy and use energy efficient products such as lightbulbs, appliances or transportation methods.
- **Explore different ways to live your life more energy efficiently.** Different methods include saving energy, conserving water, reducing waste and travelling smarter. Take ideas from the <u>Australian Government's Energy Saving</u> or <u>Global</u> Action Plan!
- Challenge the big companies to take action. Clean and affordable energy is possible, even for large companies. Investigate the companies you interact with the most and see how they are doing their work and how they could be working within a more energy efficient model. Engage with businesses, local and national governments and your fellow community members and take action by demanding energy efficient and renewable energy solutions.





### **Educational resources**

- Visit the World's Largest Lesson to explore <u>teaching resources</u> for sustainable energy and renewable resources.
- Learn how to teach students about your local energy grid and discover how to reduce your impact from Hydro Manitoba.
- <u>Energy Hog</u> is an online resource for both teachers and students that focuses on reducing energy waste through activities. Students will learn good energy-saving habits, bring lessons home to help their families, and learn to protect natural resources for future generations. Teacher and student guides and workbooks, posters and materials, assembly plans and <u>interactive online games</u> are all available.
- Explore the <u>EduKits</u> from Let's Talk Energy, an initiative of Ingenium: Canada's Museums of Science and Innovation.
   <u>Energy for Tomorrow</u> (Grades 4 to 6) allows students to explore how energy is produced in today's world through activities on the basics of electromagnetism and renewable electrical energy sources. <u>Alternative Energy and Green</u> <u>Vehicle Technologies</u> (Grades 9 and up) includes hands-on activities that allow students to create a fuel-cell vehicle.
- <u>Save The World</u> is an interactive online game that addresses the world's energy supply crisis. Students learn about different power sources, alternative energy and how we generate electricity to power our lives.
- Looking for ways to save energy costs and reduce your carbon footprint? Powerhouse TV has over <u>100 ways</u> for you to do just that.
- <u>Renewable Energy: How can we keep the lights on?</u> is a resource developed by the British Council in partnership with the Royal Society. It includes an overview of the importance and science of renewable energy as well as three activities, one of which has students build basic windmills and then investigate how they can be more efficient.
- Try some of these interactive games about energy and climate change, on the Let's Talk Energy website.

"We simply must balance our demand for energy with our rapidly shrinking resources. By acting now we can control our future instead of letting the future control us."

**Jimmy Carter** US president and humanitarian



# **CASE STUDIES**

### William Kamkwamba

In 2009, fourteen-year-old <u>William Kamkwamba</u> dreamed of bringing electricity and running water to his small village in Malawi. His community was plagued by droughts, which killed thousands of people and left his family on the brink of starvation. Fascinated by science, he taught himself how to build a windmill to make electricity and pump water for the 200 villagers in his community. He gained global attention through the media and became an activist for **informal education** and small-scale sustainable energy investment.

### 2 Indigenous Energy Independence

Many of Canada's Northern communities depend on diesel-generated electricity brought up from the South. This can create a problem of pollution from emissions and transportation. Daniel T'seleie, an Indigenous activist from Behchoko, Northwest Territories and founder of <u>Dene Nahjo</u>, has been developing solutions for Indigenous communities to gain energy independence while combating climate change. Through government investment and public and private support, improvements to solar power capacity and storage have begun to harness the territory's ample summer sunlight to store for the winter. With these investments, diesel consumption is expected to be reduced by 30 per cent.

### **3** Wyke Farms

Fancy a little green cheese with your green eggs and ham? <u>Wyke Farms</u> in the UK is serving up the first slice of sustainable cheese - they are the first national cheese brand to be 100 per cent self-sufficient in solar and biogas energy. **Biogas**, or fuel made from combusting raw materials and organic matter, is made from cow manure and leftover whey. Their investments in water recovery have also been able to save 90 per cent of the water used in the factory.

### 4 Canadian Lutheran World Relief

Using charcoal burning stoves in close quarters can cause serious health damages to the human respiratory system. However, for many marginalized groups, like refugees, charcoal and informal shelters are all they have access to. <u>Canadian</u> <u>Lutheran World Relief</u>, is working to reduce vulnerabilities resulting from the use of firewood for cooking fuel among refugees in Bambasi Camp, Ethiopia. The refugees receive training and material to use environmentally-friendly bio-gas stoves which do not require women to collect firewood, a task which puts them at risk of physical attack.



### 5 Providence University College and Seminary



Biochar is the process of adding charcoal, usually from burned plant matter, to increase soil fertility, lower soil pH, increase agricultural productivity and protect against soil-borne diseases. Providence University College and Seminary is working to help refugees in Uganda use biochar production as a start-up business. The business will provide employment for people in an area where few jobs are available, while using local resources to create local products and supply a local market in the Kyaka II refugee settlement.

### Hawaii Portable Classrooms

Hawaii Portable Classrooms are making a wave in the education sector. Designed by Anderson Anderson Architecture, the classrooms provide a healthy educational environment, while minimizing energy use through careful use of natural daylight and ventilation. The portable classroom simultaneously use photovoltaic panels to generate more power than they consume. The portable classroom conserves, as well as collects and generates natural resources, including electrical energy, daylight, wind energy, and rainwater. With this innovation in alternative spaces and energy, students are able to learn in the building and from it at the same time.

### **End notes**

- <sup>1</sup><u>https://unstats.un.org/sdgs/report/2016/goal-07/</u> <sup>2</sup><u>https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health</u>
- <sup>3</sup>https://www.ipcc.ch/sr15/chapter/chapter-3/
- <sup>4</sup>https://www.un.org/sustainabledevelopment/wp-content/uploads/2018/09/Goal-7.pdf
- <u>https://www.un.org/sustainabledevelopment/wp-content/uploads/2018/09/Goal-7.pdf</u>

# **B DECENT WORK AND ECONOMIC GROWTH**



### PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

**Employment is an important part of daily life.** It helps keep our economy moving, it helps us earn money to support our families and can offer us a way to contribute to the economic prosperity of others. However, not everyone makes enough money as they should. Sometimes people can't find work, or are discriminated against because of their identity or ability. In many impoverished areas, adults and children are exploited, or forced to do work in dangerous and underpaid situations, to support their families. Achieving this goal means making sure jobs are available, safe and supportive for everyone. In the process of making a living, we need to make sure we are having a positive impact on our planet too.

# <u>TARGETS</u>

- Generate safe, creative work that motivates people to fulfill their potential.
- Ensure our natural resources are respected and protected in economic development.
- Promote decent work and safe working environments for all: men, women, youth, people with disabilities and migrant workers.
- Take action to give more jobs to unemployed youth by increasing access to training.
- End forced labour and child labour in all forms.

I am a believer in women, in their ability to do things and in their influence and power. Women set the standards for the world, and it is for us, women in Canada, to set the standards high.

#### **Nellie McClung** Canadian women's rights activist

## **8** DECENT WORK AND ECONOMIC GROWTH



## LEARNING OBJECTIVES

- Learners will understand the concepts of sustainable economic development, productive employment and decent work.
- 2 Learners will understand the relationship between employment and economic growth.
- **3** Learners will understand how inequalities between labour force and management, owners and stakeholders can lead to poverty and civil unrest.
- 4 Learners will be able to understand and demand fair wages, equal pay for equal work and labour rights from their employers and government regulators .
- 5 Learners will be able to understand their individual rights and clarify their needs and values related to work.
- 6 Learners will be able to develop and evaluate ideas for sustainability-driven innovation and entrepreneurship.

## **CURRICULUM CONNECTIONS**

#### Media

How are labour issues reported in the media?

#### Environment

How can we improve the impacts on our environment through the jobs we have?

#### Poverty, wealth and power

How does wage and employment relate to the poverty cycle?

#### **Indigenous Peoples**

What are the labour issues impacting Indigenous people and communities?

#### **Oppression and genocide**

In what ways can people exercise their right to work and fair pay?

#### Health and biotechnology

How can people working in dangerous occupations improve their working conditions?

#### **Gender politics**

How can we improve gender parity in employment?

#### Social justice and human rights

What are the rights of workers and how can we spread the word?

#### **Peace and conflict**

How can we address civil unrest caused by unfair working conditions and low wages?



## THE BIG QUESTIONS

#### Where did it begin?

- Throughout history, workers have been exercising their right to organize and fight for decent work. The International Labour Organization (ILO) was formed in 1919 as part of the League of Nations. When the ILO was incorporated into the UN, labour rights were written into several articles of the United Nations Declaration of Human Rights. They defined decent work as employment that respects the fundamental rights of the human person, as well as the rights of workers in terms of conditions of work safety, physical and mental integrity, and earning a wage.
- **Labour unions** or **trade unions** are organizations of workers coming together to achieve common goals such as improving safety standards, achieving fair pay and **gender equality**.
- Local, national and international economic growth depends on the productivity of workers. In order to sustain economic development, people need to be making enough to contribute to their local economy by spending money on goods and services.
- We measure the economic growth of a nation by the total dollar value of all the goods and services produced over a period of time—we call this **gross domestic product**, or GDP. The global annual growth rate of GDP per capita increased by only 1.3 per cent in 2014, a significant slowdown compared to 2010 (2.8 per cent growth) and 2000 (3.0 per cent growth). Developing regions grew far faster than developed regions, with average annual growth rates in 2014 of 3.1 per cent and 1.4 per cent, respectively.<sup>1</sup>
- As a means of increasing gross domestic product, investments in economic development create better job
  opportunities, self-sufficiency and improve quality of life for communities. At the same time, economic development
  has a direct relationship with the environment and environmental issues. It is important to ensure our well-being does
  not negatively impact our ecosystems.

#### **2** Why does this issue matter?

#### • People need jobs, particularly women

The global unemployment rate stood at 6.1 per cent in 2015, down from a peak of 6.6 per cent in 2009, mostly owing to a decline in unemployment in the developed regions. While contributing to the poverty cycle and poor economic, physical, and mental health, unemployment ultimately affects population groups differently. Globally, women and youth (aged 15 to 24) are more likely to face unemployment than men and adults aged 25 and over.<sup>2</sup> In all regions, except Eastern Asia and the developed regions, the unemployment rate among women is higher than that of men.



#### • Financial inclusion

While economic development and employment are important for economic security, access to financial services and credit is essential to inclusive growth. In 2014, 62 per cent of the world's adult population had an account at a financial institution or a mobile money service provider, an increase from 51 per cent in 2011. During this period, 700 million adults also became account holders, meaning they were able to secure and independently control their finances.<sup>3</sup>

#### Inequalities still exist

In 2014, the pay gap ratio between chief executives and median workers in the US was 204-to-1.<sup>4</sup> At the top of the list, some CEOs earned more than 1,000 times the salary of their average worker. Government corruption can also impact marginalized individuals and communities by utilizing funds intended for social good and economic development for their own personal benefit. To protest these inequalities and exercise their rights, workers seeking pay raises and better working conditions will often strike. In areas of conflict where **human rights** are at risk, protests can be met with violent action on behalf of the government.

#### **3** Who and what are affected?

#### • Women

Existing inequalities between men and women are amplified by lower economic resources and reduced access to employment. Lack of employment can increase women's dependence on men, increasing men's decision-making power within households. This can also lead to an increase in unsafe sexual practices and/or risk of intimate partner violence. We also know that many times, women are the first to cut back their food intake to ensure food for their families in times of financial crisis.<sup>5</sup>

#### Children

Although the number of children engaged in child labour declined globally by one third from 2000 to 2012 (from 246 million to 168 million), more than half of child labourers in 2012 (85 million) were engaged in hazardous forms of work. Incidences of child labour have typically been highest in Sub-Saharan Africa, where 21 per cent of children were employed as child labourers.<sup>6</sup>

#### Migrant workers

As of 2013, an estimated 232 million international migrant workers participated in the world's economy compared to 174.5 million in 2000.<sup>7</sup> Made up of people working outside their home country, migrant workers are particularly vulnerable because there is no systematic monitoring to ensure their rights are being respected. In addition, they are often denied access to federally funded services and educational opportunities for their children.



#### 4 What needs to be done?

- One of our best efforts is providing youth an opportunity to transition to a decent job. To do this, we need investments in education and high quality training to give youth the skills to match the demands of the labour market. They also need access to social protection and basic services, in a non-discriminatory environment.
- The role of the government is to support dynamic, sustainable, innovative and people-centred economies. By supporting development that respects the rights of labourers, decent work can be had by all.
- In building our communities, we should look for ways to foster community support, personal security, innovation and employment.
- Government policies have been, and still are, developed to protect people from exclusion, forced labour and unequal pay. Governments must act responsibly and protect the rights of workers, and support those rights through training, fair pay and monitoring for safe working conditions.
- Labour unions and coalitions are organizing changes to government legislation to make it easier for migrants to move between jobs, gain opportunities for work permits and allow permanent resident status upon arrival. Since many migrant workers pay taxes to the government of the country they are working in, they should have access to the same benefits.

\* We have words for racism and sexism, but wealth discrimination isn't fully recognized. It is a bias in favor of the wealthy and against labour, the environment and the community. Concern for the public good must become the animating force of our economic order. "

> Marjorie Kelly American journalist





## **CONNECTION TO THE OTHER GOALS**



Effective conomic development supports gender equality. Empowering women by ensuring they have control and access to resources like land, and ensuring and equal pay helps reduce the impact of poverty, provide better opportunities for children and helps support community resilience.



Those encouraging economic development must understand impacts of overconsumption of resources and the impact of emissions on **climate change** and **environmental degradation**. Sustainable economic development should provide for the present without sacrificing the ability for the future to do the same.

We owe it to ourselves and to the next generation to conserve the environment so that we can bequeath our children a sustainable world that benefits all."

> Wangari Maathai Kenyan environmental activist and Nobel Laureate



#### **Consequences of inaction**

- If we fail to provide decent work opportunities for all people, we are sacrificing investments and job opportunities that uphold the social need to share in progress. We are continuing to participate in the cycle of poverty that marginalizes some populations.
- If we do not act, 168 million working children will not have access to education, protection from injury or dangerous conditions and poverty.
- •

By not pursuing sustainable economic development and supporting environmental policies, we are sacrificing our natural ecosystems and resources in return for an unsustainable future.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- **3** How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

## " Equal pay for women is a matter of simple justice."

Mary Anderson American inventor



## **RESOURCES**

#### How to take action

- Learn the laws. Protect yourself and your community by learning about your rights as a worker. Share what you know with your community and find out more about labour inequalities in your community. Education is key to ensure safe working environments and decent work.
- Vote with your dollar. Support fair working conditions and workers' rights by supporting companies whose treatment of their workers is fair and just. A way to do this is buying **fair trade** products. Look for the label and ask the places that you buy from to support them too. Learn how and where products are made and if they use child labour or exploitative working conditions to source their raw materials. You can also take action to <u>make your school Fair Trade</u> or learn more about Fair Trade Canada here.
- **Support economic empowerment projects.** If you want to donate to a cause that supports labour rights, look for projects that involve gender equality, **microloans** and poverty reduction. Investing in people's skills, training and providing access to start-up capital can offer them the support they need to pursue their entrepreneurial dreams.
- Join a cause. Learn about local workers' unions in your area and show your support for a cause you believe in. International Workers' Day (May 1) is a celebration of the working class and international labour movement. Join a charity that supports ending unfair child labour and educate others about how they can make ethical choices in their shopping.
- Learn about the cycle of poverty within your own community, province, country and internationally and understand the interconnected relationship of the global market and its workforce. Support an aspect of this by campaigning for equal rights, equal pay, smaller wage gaps and more.



#### **Educational resources**

- The World's Largest Lesson page for Goal 8 has downloadable comics, posters, and lesson plans <u>here</u>. <u>Challenging</u>
   <u>Common Conceptions</u> is a lesson plan that focuses on how environmental issues are interlinked to economic issues and students will investigate different ways of approaching environmental, social and economic issues.
- MCIC has a workshop and lesson plans available on Child Labour. Contact us today.
- Alliance87 provides educational resources, facts and graphics around ending forced labour and child labour around the world. Check out their website for more resources.
- The <u>Canadian Labour Congress</u> helps you understand the issues facing workers in Canada, including aboriginal workers, employees of colour and LGBTQ employees.
- Republic of You is an online interactive game available through Oxfam. It explores inequality by allowing participants to create their own nations, become national leaders and make necessary decisions on real world issues like taxes, wages, public services, education, gender wage gap and more. A teacher's overview, two sessions and a slideshow are included.
- Explore <u>Dollar Street</u> with students and learn how poverty, lack of resources, unequal pay and different living conditions affect families all around the world. The interactive platform demonstrates how we all have the same needs yet cannot afford the same solutions, how families and incomes compare nationally and internationally, and highlights different families' experiences and circumstances.
- <u>Giving Credit Where Credit is Due</u> (Grades 11-12) is a lesson plan that addresses micro-finance as an alternative approach to lending money to those who would not normally qualify for traditional banks loans. Students will explore the social and environmental impacts of microcredit programs, the costs and benefits of micro-crediting, and compare the model with traditional lending systems. This lesson can be found on the Saskatchewan Council for International Cooperation Resource page, which also has other global justice lessons available for download.



## **CASE STUDIES**

#### Women in Coffee

The Women in Coffee project encourages independence and income for women coffee farmers in Kenya. Despite doing 70 per cent of the work growing coffee, many women are not given rights to what they grow.<sup>®</sup> Products that are certified as being 'fair trade' are made by companies improving the social and environmental standards of their work. The products are usually commodities exported from developing countries, and seek to promote sustainable development by securing the rights of workers. Women in Coffee demonstrates this by empowering women through sustainable jobs and an industry that is continually growing.

#### 2 Canada Labour Code

Exploitation of labourers was still common in Canada during the 1960s. When a fire broke out in a tunnel being built in Toronto, five Italian immigrant workers died. This tragedy became the catalyst for government policies supporting health and safety in the workplace, leading to the Ontario Industrial Safety Act and the Canada Labour Code. These laws are still in place today to protect the health and safety of workers.

3

## iDE Canada 📝

Lack of education and skill development are key barriers to economic development. The Innovation for Rural Prosperity project by iDE Canada in Ghana helps farmers earn income from dry season farming through training on crop cultivation and disease and pest management. By supporting labour unions for farmers, they can take advantage of stronger buying power and collective action.

#### Mennonite Economic Development Associates



Mennonite Economic Development Associates of Canada are working in Myanmar to help women and small producers increase their income and status as economic actors and leaders in their communities. Through grants, the project helps strengthen the provision of goods and services to women from Myanmar's public and private sectors. The project will help implement an innovation fund and other related business assistance to help make more sustainable opportunities available to women farmers and entrepreneurs.



#### **5** Canadian Lutheran World Relief

In collaboration with Lutheran World Federation-Uganda, a Canadian Lutheran World Relief project is helping reduce vulnerability and dependency for 300 South Sudanese refugees and host community members in Adjumani, Uganda. This project remains focused on vulnerable youth aged 15-30, prioritizing child-headed households. Youth are able to develop marketable skills and competencies, helping them become economically self-sufficient and better prepared for their future.

#### **5** Canadian Hunger Foundation



Using a market-led approach, the Canadian Hunger Foundation is working to improve the livelihoods and food security of 8,000 smallholder farmer households (40,000 beneficiaries) in the Eastern Amhara Region of Ethiopia. They do this through training government specialists and development agents, and over more than Cooperative members on business skills, marketing, and agricultural business management.

#### **End notes**

- <sup>1</sup>https://sustainabledevelopment.un.org/sdg8
- <sup>2</sup>https://sustainabledevelopment.un.org/sdg8
- <sup>3</sup>https://sustainabledevelopment.un.org/sdg8
- <sup>4</sup> http://www.huffingtonpost.com/entry/ceo-worker-pay-gap\_us\_55ddc3c7e4b0a40aa3acd1c9
- <sup>5</sup>http://www.unaids.org/sites/default/files/media\_asset/JC2368\_impact-economic-crisis-women\_en\_0.pdf
- <sup>6</sup>https://sustainabledevelopment.un.org/sdg8
- <sup>7</sup> <u>http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\_398078.pdf</u><sup>8</sup> https://www.youtube.com/watch?v=PLKTGWH398Q

## **9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**



## BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

**Goal 9 extends the idea of decent work to the development of infrastructure,** such as transport, irrigation, energy and information and communication technology, to achieve sustainable development and community empowerment around the world. Investing in the research and development of technological progress, education and the empowerment of marginalized communities can help us achieve our environmental objectives of renewable resources and energy-efficiency.

## TARGETS

- Develop sustainable and resilient infrastructure to support economic development and human well-being.
- Improve access for small business and enterprise to financial services and technical support.
- Reduce environmental impact and promote sustainable development in businesses and industries.
- Invest in research for country-specific solutions and technological improvements to economic development.
- Ensure universal access to the Internet and new technologies, particularly in developing countries.

Never before in history has innovation offered promise of so much to so many in so short a time."

#### **Bill Gates**

American businessman and philanthropist



## LEARNING OBJECTIVES

- Learners will understand the concepts of sustainable infrastructure and industrialization.
- 2 Learners will understand the local, national and global challenges to achieving resilient infrastructure and industrialization.
- Learners will be able to identify opportunities in their own culture and nation for greener and more resilient infrastructure, understanding their risks and overall benefits.
- 4 Learners will be able to reflect on the pitfalls of unsustainable development.

## **CURRICULUM CONNECTIONS**

#### Media

How can media keep industries accountable to their social, economic and environmental impact?

#### **Environment**

What are the essential qualities of sustainable development regarding environmental protection?

#### Poverty, wealth and power

How can industrialization or innovation help end the poverty cycle?

#### **Indigenous Peoples**

How can infrastructure development and industrialization be more inclusive of Indigenous perspectives and rights?

#### **Oppression and genocide**

How does government corruption affect infrastructure development and industrialization?

#### Health and biotechnology

How can we ensure healthy working conditions amidst economic development?

#### **Gender politics**

How can we ensure spaces for women in innovative technological sectors?

#### Social justice and human tights

Could access to Internet become a human right? What would it look like?

#### **Peace and conflict**

How is industrial development impacted during times of conflict?



## THE BIG QUESTIONS

#### Where did it begin?

- **Sustainable development** promotes the progression and development of sustainable living through sustainable infrastructure. Sustainable development of basic infrastructure, such as water, energy, transport, sanitation and information technology, is a high priority because it affects so much of our daily lives. Increased population growth and climate change have generated a need for infrastructure that is high performing, cost-effective, resource-efficient and environmentally friendly.
- Unequal access to and distribution of resources and infrastructure due to social, political and economic inequalities impacts the well-being of our population. **Overconsumption**, reliance on **nonrenewable resources** and poor protection policies fail to improve the quality of our environment in the face of economic development.

#### **2** Why does this issue matter?

#### • Communities still lack basic infrastructure

Basic infrastructure like roads, **information and communication technologies (ICT)**, sanitation, electrical power and water remain scarce in many developing countries. More than 2.5 billion people worldwide lack access to basic sanitation, and almost 800 million people lack access to water, many hundreds of millions of them in Sub-Saharan Africa and South Asia.<sup>1</sup> In addition, 1 to 1.5 billion people do not have access to reliable phone services.<sup>2</sup> Quality infrastructure is positively related to the achievement of social, economic and political goals.

#### • We need to promote inclusive, sustainable industrialization

As the structure of world economies shifts to less energy-intensive industries and countries implement policies for enhanced energy efficiency, almost all regions have shown a reduction in **carbon intensity** of **gross domestic product (GDP)**. Global carbon dioxide emissions per unit of value added showed a steady decline between 1990 and 2013, a decrease of about 30 per cent.<sup>3</sup>

Small businesses need access to credit In developing countries, small-scale industries accounted for an estimated 15 to 20 per cent of value added and 25 per cent to 30 per cent of total industrial employment in 2015.<sup>4</sup> However, access to financial services in those countries remains a problem.

Globally, the credit gap for small and medium enterprises (defined as having between 5 and 99 employees) was estimated at \$3.2 trillion to \$3.9 trillion in 2012.<sup>5</sup> In emerging markets, between 45 per cent and 55 per cent of all small and medium enterprises are unserved or underserved by financial services.<sup>6</sup>



#### • People need affordable Internet access

Infrastructure and economic development also rely on information and communications technology. Mobile cellular services have spread rapidly around the world, allowing people in previously unconnected areas to join the global information society. By 2015, the percentage of the population living in areas covered by mobile broadband networks stood at 69 per cent globally.<sup>7</sup> In rural areas, the share was only 29 per cent.<sup>8</sup>

#### **3** Who and what are affected?

#### • The poor

Infrastructure is a key element to **poverty reduction**. Investment in development can act as a catalyst for enhancing the ability for the poor to access assets like human, social, financial and natural capital. However, location, pricing and socio-political factors often reduce access to necessary infrastructure. Without roads, water, electricity and information connectivity, the poor are not able to access new markets, develop their businesses and network. Infrastructure is more than just roads and pipes, it is the capacity to use them.

#### The technologically marginalized

A lack of Internet access means people cannot share ideas, access financial services and ensure their safety through education and communication. At a basic level, expenditure on Internet costs around US\$120 per person, per year.<sup>9</sup> Improving access to Internet and new technology must consider cost, connectivity, maintenance, privacy and context to bridge the digital divide.

#### • Our environment

Building roads, dams, houses and businesses all help support a growing human population, but can have devastating impacts on our environment. They can endanger fragile habitats and species, pollute our ecosystems and reduce our **biodiversity**. Governments, industry leaders, citizens and environmental activist groups need to collaborate on innovative strategies to reduce environmental impacts and protect sensitive habitats that could be permanently damaged by these projects.



#### 4 What needs to be done?

- Infrastructure is made up of two dimensions the physical assets themselves and the services needed to maintain them. Project development and funding is strengthened when public and private groups work together to provide solutions. Developing new infrastructure is important, but using our existing systems more effectively and efficiently is important too.
- The development of information and communication technology (ICT), like the Internet, has developed unevenly throughout the world. This uneven development in ICT intersects with the development of other technologies, **human rights**, education, labour, democracy and tourism. However, world Internet usage is improving exponentially, with the number of Internet users in Africa alone growing 7,557 per cent between 2000 and 2017.<sup>10</sup>
- Improving the reach of infrastructure means improving distribution, financial access and training. Mobile phones have come a long way in supporting infrastructure, communication and information exchanges. Continuing to develop and innovate in this area will increase access and lower infrastructure barriers.
- Investing in education, ICT and our workforce is a must if we are going to increase digital literacy, decrease the gender divide and emphasize sustainable solutions to infrastructural development. This will help reduce inequalities and our negative impact on the environment.

It turns out that advancing equal opportunity and economic empowerment is both morally right and good economics, because discrimination, poverty and ignorance restrict growth, while investments in education, infrastructure and scientific and technological research increase it, creating more good jobs and new wealth for all of us.

> **Bill Clinton** Former US president



## **CONNECTION TO THE OTHER GOALS**



Investment in infrastructure and industrial development requires the use of **natural resources**. In order to make our investments sustainable, and ensure future generations the same prosperity, we need to ensure our businesses, governments and institutions understand how to minimize their impact on the environment.



Access to infrastructure must take into account the physical, economic, social, cultural, gendered, racial and abilitybased barriers preventing people from participating and benefiting from this development.



Solving issues in access to infrastructure requires a systems-level approach. We need to understand the interconnected reality of the big issues facing our planet and population, such as the role poverty plays in determining access to good infrastructure.



#### **Consequences of Inaction**

- The cost of our inaction is steep. Given the role of infrastructure and industrial development as core drivers of a global development agenda to eradicate poverty and advance sustainable development, failure to improve inclusive, reliable, and sustainable development will make ending poverty more difficult.
- Failing to improve infrastructure and promote technological innovation could translate into poor health care, inadequate sanitation and limited access to education.
- Failing to improve and address the sustainability of our businesses, governments, policies and habits will sacrifice our environment for an uncertain future.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

To get away from poverty, you need several things at the same time: school, health, and infrastructure—those are the public investments. And on the other side, you need market opportunities, information, employment and human rights.



Swedish physician and academic



## **RESOURCES**

#### How to take action

- Encourage collaboration. Look for ways stakeholders like non-governmental organizations (NGOs), governments, businesses and community members can help solve problems. Look for inclusive, resilient and sustainable solutions that benefit as many people as possible. You can challenge projects and policies that you don't think are fair through your voice on social media, print media and demonstrations. You can also use your vote and your dollar to influence policies and products that you think are doing a good job or need to improve.
- **Speak up and out.** Ensuring our right to communicate and connect is essential to our individual, economic and political prosperity. However, many groups such as people of colour, immigrants, minorities, women and LGBTQ groups, are under attack from censorship and bullying. In order to benefit from Internet access, it has to be a safe space for everyone. Speak out against bullies and speak up over censorship of **marginalized** groups.
- **Expand your understanding.** Anyone can use their creativity to problem solve with innovative solutions. Set out to learn some new tech skills and involve yourself in an innovative community. Look for ways to apply your innovative ideas to better your community and improve the capacity of marginalized groups. Innovation comes from collaboration, so look for ways to learn, share and think critically with people in your community and on the other side of the world.
- **Support projects that promote sustainable growth and protect the environment**. Do your research before raising and donating funds. Get involved in local industry and infrastructure decisions and speak up about future developments or address existing projects and help make them more sustainable.
- Let your dollar do the work. Make ethical decisions while you're shopping to make sure your dollars are supporting producers who protect the environment and receive a fair wage. One way to do this is to buy **fair trade** items or look for B-Corp Certified products.<sup>11</sup> A fair trade item ensures your dollars are supporting producers who protect the environment and receive a fair wage. For more information and resources on fair trade, please see SDG 12.



#### **Educational resources**

- The World's Largest Lesson page for Goal 9 has downloadable comics, posters, and lesson plans <u>here</u>, including this one on <u>Food Innovations: Investigations in Science</u>. Designed for age 9 to 14, this lesson plan encourages students to consider the impact of their daily food choices on the Global Goals and think about innovations in food systems.
- UNESCO has developed a strong <u>collection of resources</u> to help teachers understand and educate students on the principles of sustainable development.
- The Manitoba Ministry of Education has a wealth of <u>resources for teachers</u> to develop an interdisciplinary approach to instruct sustainable development.
- Learn more about sanitation infrastructure and how access to clean water changes lives. Explore these <u>water lesson</u> <u>plans</u> on issues including water scarcity, the effects of dirty and unsafe water and the impacts that lack of proper sanitation and hygiene can have in a community.
- Consider using Design Thinking in your classroom to help your students be innovators. There is a lot of great information online, and a good place to start is this <u>Toolkit to Explore Design Thinking</u>. For some design thinking projects and challenges, check out this list of ideas and lesson plans.

Imagination is not only the uniquely human capacity to envision that which is not, and therefore the fount of all invention and innovation.

In its arguably most transformative and revelatory capacity, it is the power that enables us to empathize with humans whose experiences we have never shared. " **J.K. Rowling** British author



## **CASE STUDIES**

#### USAID

In Afghanistan, only 30 per cent of the population has access to reliable sources of electricity. Through the support of USAID, a newly commercialized national electric company in Kabul was able to reduce energy loss from 60 per cent to 35 per cent, caused by poor billing, illegal connections and inefficiencies.<sup>12</sup> In the process, they were able to improve the sustainability of long term provision of electricity for their customers.<sup>13</sup>

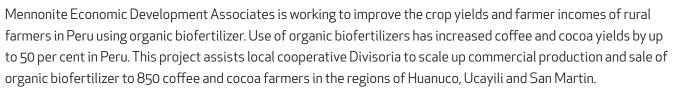
#### **2** EcoCash and M-Pesa

Developing **mobile infrastructure** is just as important to growing economies as physical infrastructure. Companies like EcoCash and M-Pesa in Zimbabwe and Kenya offer SMS-based money transfer services. Investments in African companies supporting financial services through mobile phones have increased access for customers previously to baking services and their money. M-Pesa is moving over \$24 million in transactions each day.<sup>14</sup>

#### **3** Medellín

In 2004, the Colombian city of Medellín began constructing gondolas to help improve transportation to and from low income neighbourhoods in the city. Investing in resilient, innovative and sustainable transportation saved residents time and money commuting downtown for work. Improved infrastructure helped increase security by adding lighting, presence, and attention to formerly high crime areas.

#### 4 Mennonite Economic Development Associates



#### Engineers Without Borders

srs 📝

In partnership with Engineers Without Borders, 150 Ugandan entrepreneurs piloted a mobile financial record keeping app for small businesses called TrackApp. This mobile financial record-keeping application is designed for use by small businesses around the world. Currently, 150 Ugandan entrepreneurs are piloting TrackApp to empower themselves and their businesses to make evidence-based decisions, leverage financial records, generate income and provide better goods and services in their local economy.



## 5 iDE Canada

iDE Canada is working in Ethiopia to help 7,000 farmers earn income from dry season farming by providing training to local entrepreneurs and assisting farmers in setting up viable sustainable markets for their products. This will help sustain livelihoods and support business relationships in the area

#### **End notes**

- <sup>1</sup>https://sustainabledevelopment.un.org/sdg9
- <sup>2</sup>https://sustainabledevelopment.un.org/sdg9
- <sup>3</sup>https://sustainabledevelopment.un.org/sdg9
- <sup>4</sup>http://www.fresh-partners.org/sdg-9---industry-innovation--infrastructure.html
- <sup>5</sup>https://unstats.un.org/sdgs/files/report/2016/secretary-general-sdg-report-2016--EN.pdf
- <sup>6</sup>https://sustainabledevelopment.un.org/sdg9
- <sup>7</sup>https://unstats.un.org/sdgs/report/2016/goal-09/
- <sup>8</sup>https://sustainabledevelopment.un.org/sdg9
- <sup>9</sup>https://psu.pb.unizin.org/ist110/chapter/9-3-the-digital-divide/
- <sup>10</sup>http://www.internetworldstats.com/stats.htm
- " http://www.fairtrademanitoba.ca/
- <sup>12</sup>https://www.usaid.gov/afghanistan/infrastructure
- <sup>13</sup>https://www.youtube.com/watch?v=e274xwYwULs
- <sup>14</sup>http://www.un.org/africarenewal/magazine/april-2014/internet-access-no-longer-luxury

### **REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES**

Age, sex, ability, race, ethnicity, origin, religion and socio-economic status are all important aspects of our identity. However, in many ways, our identity can impact our income, along with our political, social and economic participation in daily life. Goal 10 is all about reducing these inequalities to encourage prosperity and income growth within and between countries. We can achieve this by making sure our attitudes, policies and behaviours ensure equal opportunities, respect for human rights and inclusivity.

## TARGETS

- Provide support for people living in poverty to access resources for sustainable economic development.
- Ensure laws and practices represent and reflect people's needs while not discriminating against any group.
- Facilitate and support regular, responsible and safe migration and mobility of people.
- Ensure social programs and laws protect and include disadvantaged and vulnerable populations.
- Ensure people leaving one country to live in another benefit from laws and protection.

" An imbalance between rich and poor is the oldest and most fatal ailment of all republics."

#### Plutarch

1st Century Greek biographer

## **LEARNING OBJECTIVES**

- Learners will understand inequality, how to measure it, and its interrelation with other social problems.
- 2 Learners will understand the local, national and international processes that promote and hinder equality, such as fiscal, wage and social protection policies or corporate activities.
- **3** Learners will be able to raise awareness about inequalities in their community and abroad, while showing solidarity with people who are discriminated against.
- 4 Learners will be able to evaluate inequalities in terms of quality and quantity, while identifying causes and strategies to reduce them.

## **CURRICULUM CONNECTIONS**

#### Media

How does the media report on inequalities?

#### Environment

How does environmental degradation unequally impact people or countries?

#### Poverty, wealth and power

What are some contributors to the poverty cycle in your local community? How can we balance inequalities of power between nations?

#### **Indigenous Peoples**

How do Indigenous individuals and communities experience inequality and what is being done to address it?

#### **Oppression and genocide**

What are some examples of genocide that resulted from or have led to inequalities?

#### Health and biotechnology

How is biotechnology addressing inequalities in health? What are the barriers to implementing these programs?

#### **Gender politics**

How has feminism addressed inequalities of gender? What can be done in the future to address current gender inequalities?

#### Social justice and human rights

What are some historical events of inequality that have led to advances in social justice and human rights? How can we take action on social justice issues today?

#### **Peace and conflict**

How do inequalities result in conflict? How have people overcome these conflicts to address peace and equality?

## THE BIG QUESTIONS

#### Where did it begin?

- Inequalities arise when our actions, attitudes and policies discriminate against individuals and communities. Often these inequalities are based on characteristics such as income, sex, indigeneity, age, disability, sexual orientation, race, class, ethnicity and religion.
- When our society discriminates or excludes people from benefiting and participating fully in or from social, economic and political spaces, we call this treatment **marginalization**. Racism, sexism, ageism, disability, **xenophobia**, homophobia, transphobia or prejudice are examples of marginalization. These kinds of marginalization can happen between people and also at an institutional level.
- The reality for many of the world's poorest people is that no matter how hard they work they cannot escape the **poverty cycle**. For those who are already rich, they might continue to see their wealth grow at an ever-increasing rate, which can heighten other economic inequalities. In South Africa, a platinum miner would need to work for 93 years just to earn their average CEO's annual bonus.<sup>1</sup>
- Inequalities negatively impact long term social and economic development, poverty reduction strategies, as well as individual self-worth and prosperity. Beyond a certain threshold, inequality can harm individual and community health and the quality of relations between public and political spheres.
- One way to measure inequality is through the **Gini coefficient**. A score of zero represents perfect equality and one equals perfect inequality. The Gini coefficient measures the extent to which income is distributed unevenly amongst a population. Between 1990 and 2010, the average income inequality—taking into account population size—increased by 11 per cent.<sup>2</sup> Increasing income inequality rates should prompt a call to action for governments and society at large to support equal growth, social supports and poverty reduction strategies.

#### **2** Why does this issue matter?

#### • People living in poverty need access to economic growth

More than 75 per cent of the population in developing countries are living in societies where income is more unequally distributed now than it was in the 1990s.<sup>3</sup> Poverty reduction strategies need to recognize unique barriers to economic growth for different vulnerable populations to make an impact on income equality. Policies and social support programs work to empower marginalized groups and improve quality of life for all.

#### Laws and practices need to be inclusive and supportive for all people

When we support vulnerable populations, we support ourselves. Social protection has been significantly expanded around the globe, yet persons with disabilities and mental health issues are up to five times more likely than average to incur catastrophic health expenditures.<sup>4</sup> Inequalities such as access to healthcare and other key services can be addressed through policies and funding for social support programs.

#### Disadvantaged and vulnerable people must be protected

Human rights cannot be taken away from us, but vulnerable populations still face discrimination. Governments must recognize and protect the rights of vulnerable populations to be able to support them. As an example, transgender people are being increasingly recognized and protected at the national level, but are still ostracized and experience income inequalities. In an effort to protect vulnerable populations, the Indian government officially recognized **transgender** people as a third gender in 2015.<sup>5</sup> This advance in policy ensured quotas for jobs and education to help transgender populations increase their income and end a cycle of poverty. Protections must be put in place for vulnerable populations, including the disabled, the extreme poor and other marginalized populations.

#### People who leave one country to live in another must benefit from laws to protect them

Whether documented or undocumented, migrants are increasingly vulnerable to human rights violations. They also face additional challenges from living in precarious situations, often without full citizenship status in their new country. State governments determine the admissions process for migrant workers and hold a lot of power over their well-being. When states protect and support migrants, and enable them to earn decent pay and decent working conditions, their productivity contributes to the host country in a mutually beneficial relationship.<sup>6</sup>

#### **3** Who and what are affected?

#### • Vulnerable populations

Discrimination is an act of oppression against an individual or community on the grounds of their race, age, gender, sexual orientation, health status, geographic location, religion, migration status, ability, age, **indigeneity** and income. Vulnerable populations represent the people who are more likely to be discriminated against. Policies rooted in discrimination can influence how people perceive marginalized groups within society, making it a cycle of discrimination. Social, political and economic support that respects the unique barriers and opportunities of marginalized groups is essential to address inequalities and invite participation from these populations.

#### 4 What needs to be done?

- We can't fix income inequalities without changing rules at the local, national and international levels. We can help the economies of developing nations by making it easier for trade by reducing import tariffs, increasing economic access to resources and supporting social welfare programs and economic development through aid.
- On a local and national level, raising minimum wage, increasing taxes on extreme wealth, capping CEO pay and strengthening laws on non-discriminatory hiring, while providing incentives for job creation are ways for policy and practice to address the issue of income inequality. Supporting those who suffer financially from marginalization and inequality through **solidarity** efforts and social welfare programs are also great places to start.
- For most citizens, there's a lot that can be done to end poverty inequality. Communicating political, social and economic support through activism, votes, time and talent can all help make a difference.

**\*** Today, women make up half of the U.S. workforce, but the average working woman earns only 77 per cent of what the average working man makes.

> Unless women and men both say this is unacceptable, things will not change. "



## **CONNECTION TO THE OTHER GOALS**



Discrimination, particularly through income inequality, greatly increase a person's likelihood of entering the poverty cycle. When we explore the reasons why inequalities exist, we must also examine their connection to other areas of a person and community's well-being, such as physical and mental health, **food security**, education, poverty and access to housing.



Investments in infrastructure and industrial development need to incorporate opportunities to improve access to, and benefit from, economic development for all. Inclusive industrialization can improve opportunities for decent work and community prosperity as well.



Income inequality is a gendered issue. Women are often paid less than men for equal work, which is coupled with the **double burden** of unpaid work at home and in the community. Ensuring equal pay, access to education, recognition and opportunities for leadership invites new perspectives to our work and empowers us all.

The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.

> Franklin D. Roosevelt Former US President

#### **Consequences of Inaction**

- Healthy migration practices require social, political and economic support. If we fail to provide these supports, we are directly impacting people's ability to break cycles of poverty. This reality is not just for the migrants who land in another state, but for future generations to come.
- Income inequality is directly related to physical and mental health. If we aren't able to support ourselves and our families, we are not able to provide healthy conditions for our bodies to thrive.
- If we are going to strengthen decent work and economic growth, we need to understand how inequalities and marginalization prevent vulnerable populations from accessing these opportunities. Our policies, attitudes and behaviours need to work against these barriers to make employment more inclusive. If we do not act, vulnerable populations will continue to be affected by these issues, ensuring enduring inequalities.

## **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

\* All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

**Article 1** Universal Declaration of Human Rights

## **RESOURCES**

#### How to take action

- Show your solidarity. Discrimination comes in a variety of forms and we all experience it differently. Show your support for individuals and communities facing inequalities by learning about their history, their struggle and their activism. Listen to their stories and offer your time and talent to help bring equality to their reality. In this case, many hands make strong work.
- **Support capacity building.** If you are interested in donating to charity or supporting humanitarian work in your community or abroad, look for opportunities that build individual and community capacity. Projects that help build self-sufficiency and the ability for people to provide for themselves are more sustainable and empowering. Providing a "band-aid," or short-term solution, doesn't help communities develop income equality in the long term.
- **Pitch it to the media.** If you see inequalities in your community, and want to get more attention on the issue, pitch it to the media. Tell them your angle and the who, what, when, where, why and how their attention could help improve this issue.
- **Get vocal.** If you see inequalities and want to address them, raise your voice and draw attention to the issues. Write a letter to the editor, your member of parliament, call in to a radio show or give a speech at your school or community events. Tell the world what the issues are, what you're asking, and how their support can help.
- Learn about inequality in your community. How are people in your community experiencing the effects of inequality? How might differing levels of abilities or levels of access to services affect you or others in your community? How might it affect others around the world? How can our community reduce discrimination? Take action based on what you discover!
- **Start a social justice or equality group.** Discover issues where your effort and energy can be put to good use. Find out who is working on these issues in your community and learn more through volunteering, interviews or fundraising.
- **Research your local politician's actions and statements.** What is their position on disability issues and inequality? Find out what's happening now in your community and Canada. Join the discussion by calling or writing your government representatives and encouraging them to take action.
- Write to the Prime Minister and the Minister of International Development. Ask them to take action to ensure development assistance goes to the least developed countries first.

#### **Educational resources**

- The World's Largest Lesson page for Goal 10 has downloadable comics, posters and lesson plans <u>here</u>. You can also download <u>The World is Not Equal. Is that Fair?</u> (ages 11 to 14). This lesson helps students learn about inequality and explore its impacts on the wider society and economy.
- Safe@Schools is a project funded by the Ontario Ministry of Education. They have a wealth of activities and resources for understanding marginalization and how to teach inclusivity. Find their toolkits and activities here.
- The United Way invests in programs to ensuring vulnerable populations have the opportunity to fulfill their life's potential. They have a web-based game called <u>Make the Month</u> that simulates the reality of living below the poverty line and explores difficult decisions about things most of us take for granted.
- The American Psychological Association has a number of <u>activities and exercises</u> for students and teachers to understand privilege and inequality.
- Explore forced migration and the refugee experience through <u>Children On The Move</u>. Students will build an understanding of what life is like for people forced to flee their homes and understand that migration has and continues to affect everyone.
- Share the <u>Goats of Anarchy</u> comic book with your students to teach concepts around differing abilities and inequality. The comic includes discussion questions at the end.
- Consider taking your older students (Grade 7 and up) through the Canadian Foodgrains Bank <u>Forced to Flee</u> activity, where students work together in 'family units', making difficult decisions within this forced migration scenario, to maintain their supply of food, money and health while securing their future post-conflict.

## **CASE STUDIES**

#### ADRA Canada

For many refugees to a new country, inequalities accessing resources are a difficult reality. ADRA Canada is working with Burundian refugees in Rwanda to reduce inequalities accessing education by providing transitional classrooms for Burundian refugee children in the Mahama refugee camp. Children participate in a six-month intensive orientation program, and were enrolled in Rwandan national schools in 2016.

#### 2 Canadian Catholic Organization for Development and Peace

The Canadian Catholic Organization for Development and Peace is working in Zambia to reduce inequalities by strengthening community participation in decision-making for issues related to the mining and extraction industries. In the Zambian provinces of Copperbelt, Luapula and North Western, the organization is working to support local people in exercising their own voice to demand economic justice by engaging communities, mining companies and the government to remain transparent and participatory with local stakeholders.

#### **3** War Child Canada

War Child Canada is addressing gendered inequalities in education by focusing on radio-based learning for girls in the South Kivu region of the Democratic Republic of the Congo. This project targets out-of-school girls aged 12 to 16 in South Kivu of the Democratic Republic of Congo, a population that, due to their age and gender, is among the most vulnerable in the country. It is to developing and broadcasting a total of 150 lessons and providing practical recommendations for the scale-up of an alternative education model for secondary education.

#### 4 Provincial Government of Ontario

To address poverty reduction, in 2017, the Provincial Government of Ontario introduced a pilot project providing 4,000 lower income citizens a basic annual salary to understand its impact on education, physical and mental health, employment, food security and housing stability.

#### 5 ide



To reduce barriers for those with disabilities, iDE has a project to build easy latrine shelters for people with disabilities. This project utilizes iDE's affiliated sales force and supply chain partners to design, test and pilot a disability-friendly latrine shelter for rural Cambodians with disabilities.

#### **6** Lion Air

In 2011, airplane manufacturer Boeing announced their largest order to date, 230 jets. Most were shocked to learn that the deal wasn't with a North American or European Airline. Rather, the \$22 billion deal went to Indonesia's Lion Air. Once among the poorest countries in the world, investments in economic development and wealth equality resulted in a rising middle class in need of air travel.<sup>6</sup> Aid investments not only improved life for millions of people in the region, but as the world's fourth most populated country, Indonesia's poverty-reduction has enabled millions to become new consumers of goods and products.

#### End notes

- <sup>1</sup>https://www.oxfamamerica.org/static/media/files/even-it-up-inequality-oxfam.pdf
- <sup>2</sup>http://www.un.org/sustainabledevelopment/inequality/
- <sup>3</sup>http://www.un.org/sustainabledevelopment/inequality/
- <sup>4</sup> <u>http://www.camh.ca/en/hospital/about\_camh/newsroom/for\_reporters/Pages/addictionmentalhealthstatistics.aspx</u>
- <sup>5</sup>http://www.bbc.com/news/world-asia-india-27031180

<sup>6</sup>https://borgenproject.org/global-poverty-u-s-jobs/

## **1 SUSTAINABLE CITIES AND COMMUNITIES**



#### MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

**This goal is all about managing urban development.** Cities are on the rise, and well-managed cities can be hubs of innovation and prosperity. Their management is a big cornerstone in sustainable development. As more people migrate to cities in search of better opportunities, access to affordable, safe and sustainable housing becomes a priority. Managing slums, urban sprawl, waste management and air pollution are essential to ensuring the well-being, health and prosperity of our population and our environment.

## TARGETS

- Ensure everyone has access to quality, safe housing and basic services.
- Provide safe, organized transportation that is not harmful to the environment and serves vulnerable populations, including women and children.
- Engage communities in discussions and planning for improvement of their cities.
- Strengthen efforts to protect our cultural and natural heritage.
- Strengthen our resilience to disasters.
- Ensure waste management and air quality is monitored.
- Prepare communities to properly manage their resources and tackle climate change.

Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.

#### **Jane Jacobs**

American-Canadian author and urban activist



# LEARNING OBJECTIVES

- 1 Learners will understand how to identify and address their basic physical, social and psychological human needs in relation to their urban, semi-urban or rural settlement.
- 2 Learners will understand the basic principles of sustainable planning and building, and identify opportunities to make their own area more sustainable and inclusive.
- **3** Learners will understand the role of local decision-makers and participatory governance and the importance of representing a sustainable voice in planning and policy for their community.
- 4 Learners will be able to use their voice to identify and advocate for a sustainable future vision for their community through community groups, local planning systems and themselves.
- 5 Learners will understand the value of planning, implementing and evaluating inclusive community-based sustainable projects.

# **CURRICULUM CONNECTIONS**

#### Media

What are the different perspectives needed to understand urban issues in the media?

#### Environment

What are some steps to make urban development more sustainable?

#### Poverty, wealth and power

How does the poverty cycle differ between rural and urban areas?

#### **Indigenous Peoples**

How are Indigenous communities impacted by urban settlement?

#### **Oppression and genocide**

What are the impacts of oppression and segregation on urban development?

#### Health and biotechnology

What are the health issues caused by urban expansion?

#### **Gender politics**

How does urbanization impact women uniquely?

#### Social justice and human rights

How can we strengthen our social support for the vulnerable?

#### **Peace and conflict**

How can urban participation and inclusion promote peace?



# THE BIG QUESTIONS

### Where did it begin?

- From the beginning of civilization, humans have sought opportunities in larger communities. Today, half of humanity (or 3.5 billion people) live in cities, and it's only going up from here.<sup>1</sup> Better job opportunities, strong communities, healthcare, education and access to social services are just some of the reasons why people are moving to cities in droves. With more people comes a need for more infrastructure, services, transportation and waste management.
- Addressing inequalities is a big concern for urban centres. Governments and non-governmental organizations (NGOs)
  have difficulty providing sufficient housing, services, security and jobs for new urban citizens. Cities, particularly
  growing developments on coastal areas, are more vulnerable to climate change and natural disasters due to their
  density and location.
- Today, 828 million people live in **slums**.<sup>2</sup> These communities are often densely populated and informal, with substandard or non-existent **sanitation** services, electricity, security and other basic services.<sup>3</sup> Rapid **urbanization** throughout history, coupled with a combination of poor urban planning, **segregation**, **poverty**, natural disasters, social conflicts and poor infrastructure, have led to the expansion of slums around the world.
- Designing **sustainable cities** means putting environmental impact at the forefront. Sustainable planning considers how urban development can minimize inputs like energy, water and food, while reducing waste outputs of heat, air pollution and **water pollution**.
- Inclusive city planning seeks to improve opportunities and living conditions for all through spatial, social and economic inclusion. Inclusive programs can be used to address issues of sanitation, poverty reduction and job opportunities to name a few.



### **2** Why does this issue matter?

#### We need quality, safe housing and basic services

In 2014, 30 per cent of the urban population lived in slum-like conditions.<sup>4</sup> In sub-Saharan Africa, this proportion was at 55 per cent—the highest of any region.<sup>5</sup> Basic needs like housing, health services, education, **food security**, transportation and **decent work** (particularly for people living in slums) make up the foundation for sustainable, healthy urban centres.

#### We need to better manage our transportation, waste and air quality

Managing solid waste can be problematic in densely populated areas. In fact, in many developing regions, less than half of solid waste is disposed safely.<sup>6</sup> As per capita waste generation continues to rise, the collection and safe disposal of solid waste will continue to require serious attention.

Urban air pollution is a challenge for cities around the world. An impact of human activity, poor air quality causes illness and millions of premature deaths annually. In 2014, around half the global urban population was exposed to air pollution levels at least 2.5 times higher than the maximum standards set by the World Health Organization.<sup>7</sup> In order to manage pollution levels, sustainable and renewable-energy transportation needs to be a high priority for expanding urban centres. Doing so will promote more inclusive economic development and manage environmental impact.

#### We must engage government and civil society to improve our cities and ensure inclusivity

Unplanned urban sprawl undermines the foundation of **sustainable development** for everyone. For example, for every 10 per cent increase in sprawl, there is a 5.7 per cent increase in per capita carbon dioxide emissions and a 9.6 per cent increase in per capita hazardous pollution.<sup>8</sup> Governments need to help citizens manage their own well-being, as well as the well-being of our environment and infrastructure.

#### We need to make our cities resilient to disaster and adaptable to climate change

Impacts of climate change, including extreme weather, flooding, hotter temperatures and health concerns, should be a priority for future planning and management of our urban centres. Low-elevation coastal areas face considerable threat from sea-level rise and storm surges. Adapting our cities is an ongoing cycle of preparation, response and revision developed over time. Integrating adaptation into existing planning processes and goals will help cities thrive in a time of climate change.



### **3** Who and what are affected?

#### • Urban poor

People caught in the **poverty cycle** often face compounding challenges of unstable housing, lower income and poor health. Food security is hard to obtain in densely populated areas with poor distribution systems. Slums are often the only solution for families seeking shelter amidst pressing socio-economic conditions. Making development and urban planning inclusive of vulnerable populations, such as the urban poor, will make our cities more supportive spaces for everyone

#### Women

Gender inequalities are substantial barriers to the support and empowerment of women in urban areas. Women-headed households suffer **disproportionately** from inadequate housing, poor access to clean water and inadequate sanitation in poor urban neighbourhoods.<sup>9</sup> In order to improve sustainability in cities, urban policy makers and governments need to understand how gender impacts rural-urban migration, slum growth and urbanism.

#### The Environment

Cities leave large ecological footprints that reach far beyond their urban boundaries to surrounding ecosystems. Managing **greenhouse gas** and waste pollution are top priorities for large urban areas. These issues require a twoprong approach to clean up our mess and reduce our impact in the future. In the developing world, where population growth is outpacing the ability to provide necessary infrastructure and services, health issues and **environmental degradation** intersect with high density and increased reliance on motor traffic.

> " In the planning and designing of new communities, housing projects and urban renewal, the planners both private and public, need to give explicit consideration to the kind of world that is being created for the children who will be growing up in these settings."

> > **Urie Bronfenbrenner** Russian-American psychologist



### 4 What needs to be done?

- Urban development costs money, however, this cost is minimal compared to the benefits. For example, a lot of people might see the creation of a new transit line as problematic because of the cost to develop and build it. At the same time, better transport can have spillover benefits that increase economic activity, quality of life, environmental sustainability and the success of a networked city. What we invest, we can get in return.
- When decision-makers initiate plans and activities without listening to community concerns and aspirations, troubled times lie ahead. Urban development should empower and involve residents to invest in their community. Good communication, planning, action and reflection through necessary social, political and economic channels will help support this development.
- Standards, set through policy and public activism, are important to indicate progress toward achieving our necessary goals. Incentives, such as tax breaks, grants or loans, are great ways to help individuals, communities and businesses to make the switch towards sustainable choices.
- Community activism and engagement through volunteering, protest, lobbying and mobilization are helping spread the message that the world wants sustainable, inclusive and resilient urban environments.

\* A protected bicycle lane in a city in a developing country is a powerful symbol, showing that a citizen on a \$30 bicycle is as important as one in a \$30,000 car.

> Enrique Peñalosa Mayor of Bogotá



# **CONNECTION TO THE OTHER GOALS**



Sustainable cities and communities require us to plan and implement programs that reduce inequalities while offering opportunities for improved infrastructure and innovation. Strengthening the resilience and development of our urban space in all these spheres takes strong governance, inclusive policies and an investment in vulnerable populations.



Poverty cycles are unique in urban and rural areas. To end poverty, we need to understand how it is perpetuated in our cities and how populations are uniquely affected. How can specific services support the increasing amount of migrants and settlers moving to a city for a better life?



Sustainable cities require sustainable services. Adequate sanitation, clean air, green spaces, affordable energy, quality education, healthcare and decent work all need to be provided in order to support a city's inhabitants.



#### **Consequences of inaction**

- The impact of poorly planned urbanization can be seen in the growing reality of huge slums, tangled traffic, greenhouse gas emissions and sprawling suburbs all over the world. Slums are a burden on **GDP**, and lower life expectancy. Proper planning and governance can help reduce these detrimental effects.
- If we don't choose to act sustainably, we miss the opportunity to build cities where all citizens live a decent quality of life, creating shared prosperity and social stability without harming the environment.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."

#### **Margaret Mead,** American cultural anthropologist



# **RESOURCES**

#### How to take action

- Learn about the issues. No matter how big or small your city, there are certainly issues and inequalities related to sustainability that need attention. Put on your investigator hat and start asking questions about how people meet their basic needs and access essential services. Identify what the issues are and how they need to be addressed. See what other cities and citizens are doing to resolve these issues and get inspired.
- **Use your voice.** Once you have identified the issues you want to see resolved for you and your community, identify who the key **stakeholders** are who can make a difference and advocate for you. If homelessness or housing availability are key issues for your city, make sure your government knows about it. Call in, show up, and speak out—using your voice as a citizen helps reinforce that sustainability and empowerment are a priority for governments and decision-makers in your city. Every voice counts.
- **Get involved**. Make a difference with sustainable activities on a local scale. Join a community garden, learn about the history of citizen activism, support a food bank and learn about the stories of vulnerable populations in your city. Getting involved will help give you a better understanding of the issues facing you and your neighbours.
- **Support a cause.** Beyond government policy, citizen groups, NGOs and local charities are highly involved in supporting the needs of marginalized groups in urban centres. Lend your time, talent and treasure to a cause you feel drawn to and help make a difference in your community.
- **Participate in a community garden.** Start a small plot in your neighbourhood or community and grow your own food, learning what it takes to put food on the table while simultaneously reducing emissions related to transportation.
- Learn and invest in vertical farming. This agricultural practice uses a system of vertically stacked layers while growing produce to save space and control environmental factors that tend to use less energy. Vertical farming not only requires less land and helps protect the environment's diversity, but also cuts down on transportation and production emissions as vertical farms can be closer to its consumers, while maximizing the food production of a small area.
- **Create or get involved in a commuter challenge.** Challenge yourself, your class and your community to cut down on their transportation emissions. Walk, bike or share a ride.
- **Propose a bike exchange system in your community.** Set up a system from which people can borrow bikes to get from point A to point B. These initiatives help reduce emissions and make this form of transportation more accessible community-wide.
- **Encourage positive spaces in your community**. Protect green spaces by having clean-up days, hold art contests with the help of your local government to showcase your community's culture and heritage, or help plan and promote sustainable development projects in your community.



#### **Educational resources**

- The World's Largest Lesson page for Goal 11 has downloadable comics, posters and lesson plans <u>here</u>. <u>Understanding</u> <u>Community Violence</u> (ages 11-14, 60 minutes) focuses on the different forms of violence that can be present in a community and how it can be prevented, ensuring a safe and inclusive community for everyone.
- Our vibrant cities need vibrant citizens. The Ontario Institute for Studies in Education has collected a variety of <u>resources</u> and <u>readings</u> about supporting student social justice education. Use these resources in your classroom and have students brainstorm on what change might look like.
- Nature Works Everywhere has compiled a number of <u>lessons on sustainable cities</u> for Science and Biology classes. Students learn, explore, analyze and map out their own ideas of sustainable community planning.
- TED Studies have collected a number of <u>videos and lectures</u> about "ecofying" our cities to help expand student understanding of sustainable cities. Engage with the material and see how your students take the ideas to heart.
- Search over 100 online games and simulations at <u>Games 4 Sustainability</u>. Options include board games, card games, and mobile or online games for students.
- Visit <u>Hydro Quebec</u> for a variety of online and interactive games that focus on energy efficiency, sustainable development and practices, and the impacts of human interaction. Games are available for students of all ages and are focused around both group work and self-guided learning.
- Learn more about the urban poor from <u>this video</u> by Overseas Development Institute. Talk with your students about how different social, economic and political issues might be addressed through different approaches in urban development.



# **CASE STUDIES**

### HOPE International Development Agency

HOPE International Development Agency is working to improve the sustainability of seasonal migrant communities in Cambodia. This project is helping reduce the need for rural farming families to migrate by improving local agricultural livelihoods. Families now have viable year-round farming, increased food production and income. Communities are more self-sufficient, reducing the widespread need to migrate for seasonal work. The project established and trained two village agricultural committees, provided training, seeds and tools for dry season rice production, and small riceprocessing mills in each community.

### Kamikatsu, Japan

To reduce their impact on the environment, residents of the town of Kamikatsu, Japan sort their waste into 34 different categories. Each of these categories helps improve the town's ability to effectively recycle and achieve their goal of being a zero-waste city. Currently, 80 per cent of their trash is recycled, with only 20 per cent going to landfills. Residents are responsible for washing, sorting and collecting their trash, with opportunities to repurpose old clothing, toys and accessories in local shops.

### **USAID: CityLinks**

USAID has developed a program called CityLinks, which enables officials in developing countries to collaborate on sustainable solutions with leaders in the US. Municipal leaders in La Cieba, Honduras and Somerville, Massachusetts were partnered to share practices on adapting to climate change. Both cities are adapting to increases in rainfall which are overwhelming sewer systems. Both identified that investments in underground tanks would serve as a solution to reducing flooding from increased runoff. Partnerships like these are important because they encourage **solidarity**, communication and collaborative solutions to problems caused by climate change.

# World Vision Canada

World Vision Canada is working in Ghana, Mali, Senegal and Sierra Leone to improve and sustain food security. Using a **systems approach**, this project is designed in response to chronic food insecurity in West Africa. It improves food security for people living in poor, rural communities by tackling crop and livestock productivity challenges, environmental degradation, poor incomes and limited institutional support for farm families. The project supports the procurement of inputs and supplies needed to increase agricultural production and income generation for beneficiaries. It also provides gender-sensitive training on improved, sustainable crop and livestock production, and trains animal health workers in disease prevention and control.

#### **1** SUSTAINABLE CITIES AND COMMUNITIES



# 5 EMAS Canada 🔓

EMAS Canada is working in Haiti to improve community sustainability through the development of sustainable construction development in areas vulnerable to hurricanes and earthquakes. Developed out of the El Shaddai Community Center, this is a post-earthquake construction project where Haitians are learning to "Build Better than Before". The project provides employment and economic stimulus to the neighborhood and teaches workers hurricane and earthquake resistant construction.

### **5** Presbyterian World Service and Development Agency

The <u>Presbyterian World Service and Development Agency</u> is working in Malawi to raise the economic potential of people living in poverty using self-help groups to promote vocational skills, education and financial management in sustainable ventures. Productivity is bolstered through volunteer care groups to improve health, hygiene and nutrition, while bringing awareness to maternal and child health services.

#### **End notes**

<sup>1</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>2</sup> <u>https://www.un.org/press/en/2010/gaef3294.doc.html</u>
<sup>3</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>4</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>5</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>6</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>7</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>8</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>8</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>8</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>
<sup>9</sup> <u>https://sustainabledevelopment.un.org/sdg11</u>

# **12 RESPONSIBLE CONSUMPTION AND PRODUCTION**



## **ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS**

Sustainable consumption and production is all about promoting resource and energy efficiency, sustainable infrastructure and jobs that provide access to basic services, decent work and a better quality of life for everyone. When we consume and produce sustainably, we are trying to do more with less. It involves consumers, producers, policy-makers, researchers and media making informed choices along the course of the supply chain. Reducing our waste, establishing environmental protection policies, supporting the development of sustainable businesses and educating the public are all ways we can help improve our consumption and production.

# TARGETS

- Reduce the amount of global food waste per person by half, for individuals and businesses.
- Ensure that the soil, air and water are protected through the upholding of international agreements for handling harmful chemicals.
- Reduce the generation of waste by reducing, reusing and recycling.
- Ensure large companies' practices are responsible, transparent and environmentally sound.
  - Support and develop public information and
- education to promote sustainable lifestyles.

"Only when the last tree has died and the last river been poisoned and the last fish been caught will we realize we cannot eat money."

> **Alanis Obomsawin** Abenaki-Canadian

filmmaker and activist





# **LEARNING OBJECTIVES**

- 1 Learners will understand and be able to communicate how lifestyle choices influence social, economic and environmental development.
- 2 Learners will understand the roles, rights, and duties of different actors in production and consumption.
- **3** Learners will be able to communicate the need for sustainable strategies and practices regarding consumption and production.
- 4 Learners will be able to plan, implement, and evaluate sustainable consumption-related activities.
- 5 Learners will be able to challenge cultural and societal trends in consumption and production.

# **CURRICULUM CONNECTIONS**

#### Media

What is the role of the media in perpetuating overconsumption? How can we become more aware of, or change, this?

#### **Environment**

How can we influence our culture to value environmental sustainability?

#### Poverty, wealth and power

How does wealth and power effect relationships between producers and consumers?

#### **Indigenous Peoples**

What is being done to support remote Indigenous communities to combat inflated prices of consumer goods?

#### **Oppression and genocide**

How has consumption influenced oppression and marginalization?

#### Health and biotechnology

What is overconsumption doing to our health?

**Gender politics** How is consumption a gendered issue?

#### Social justice and human rights

How are consumption patterns and social justice connected?

#### **Peace and conflict**

How does consumption of certain goods support ongoing conflict? (e.g.: Mining and resource extraction in the Democratic Republic of Congo)





# THE BIG QUESTIONS

### Where did it begin?

- When you grab an item off the shelf, you are at the midway point of a product's life span. What extends behind you
  are all the different organizations, people and resources involved in transforming different natural resources into
  a finished product. What stands before you are the ways that product will impact the world around it and how it will
  ultimately need to be disposed. Consumers are the end of the supply chain, or the sequence of processes and actors
  involved in the production and distribution of a particular good.
- Western industrial revolutions in the 18th and 19th century pushed consumption and resource extraction into overdrive. The use of technology and **fossil fuels** to improve the efficiency of mass production led to an expansion of global consumer culture.
- In the 20th and 21st centuries, environmental costs associated with material benefits were brought to the global stage as awareness of human-induced greenhouse effects from forest clearing, pollution and fossil fuel use grew.<sup>1</sup>
- Sustainable consumption and production was defined in 1994 at the Oslo Symposium on Sustainable Consumption.<sup>2</sup>
  They described it as the use of services and products which respond to our basic needs and bring better quality of life
  while minimizing the use of natural resources, toxic materials, and emissions of waste and pollutants to not jeopardize
  the needs of future generations.
- In order to achieve sustainable consumption, we need to first increase the efficiency of consumption through technological and **eco-efficiency**, and secondly, change and reduce our consumption patterns in general through consumer and **stakeholder** action.

### **2** Why does this issue matter?

#### • Companies need to be responsible for their practices

**Land degradation**, declining soil fertility, unsustainable water use, overfishing, and marine environment degradation all lessen our ability to provide food for ourselves. We can extract natural resources sustainably, but businesses need to make sustainable choices, remain transparent and encourage sustainable consumer behaviours.

#### • We need international agreements and enforcement to properly handle harmful chemicals

Pollution can't be contained by the borders of any one country. The harmful effects of spills, air pollution, **water pollution** and contamination extend to areas beyond the country where the pollution originated, making efforts to control pollution complex. Bad management, poor government organization and lack of will are the biggest barriers when it comes to monitoring emissions, corporate enforcement and managing contamination. We need strong social, economic and political policy direction and enforcement to hold businesses and governments responsible for their impact.





#### We need to reduce our food waste

Each year about one-third of all food produced—equivalent to 1.3 billion tonnes worth around \$1 trillion—ends up rotting in the bins of consumers and retailers, or spoiling due to poor transportation and harvesting practices.<sup>3</sup> Producers, suppliers, consumers and governments all have a part to play in reducing our food waste and improving transportation efficiency.

#### We need to inform and educate the public

Households consume 29 per cent of global energy and contribute to 21 per cent of resultant **CO2 emissions.**<sup>4</sup> For example, if people worldwide switched to energy efficient lightbulbs, the world would save US\$120 billion annually on energy costs. Consumers need to know how they can make the sustainability switch and make ethical choices in the products they buy and how they use them. Reduce, reuse, recycle and turn off those lights while you're at it!

#### **B** Who and what are affected?

#### • Consumers

Increased growth in various sectors of the African economy have seen an expansion in the middle class—with consumer spending expected to grow from \$860 billion in 2008 to \$1.4 trillion by 2020.<sup>5</sup> Increases in disposable income mean increased demand for consumer goods and merchandise beyond the essentials. In order to make prosperity a two-way street for consumers and our environment, we need to encourage consumption patterns to value sustainability and ethical practices.

#### Businesses

Businesses can benefit from new solutions that enable sustainable consumption and production patterns. A better understanding of the environmental and social impacts of products and services is needed, both of product life cycles and how these are affected by use within our own lifestyles. Businesses can also use their innovative power to design solutions that can both enable and inspire individuals to lead more sustainable lifestyles, reducing impacts and improving well-being.

#### Our Environment

Our environment is the fuel and the vehicle for human consumption and production. We extract natural resources to make goods, while we also dispose of the goods we don't need. The problem with this system is that we live on a planet with finite resources and a sensitivity to the waste we produce. This means there is only so much to go around and we're not cleaning up our mess properly. If we over-consume, pollute or produce goods that cannot be disposed of in a responsible manner, we are damaging our ecosystems and the ability to use and enjoy them in future.



### 4. What needs to be done?

- Governments need to rethink regulations and provide incentives that support sustainable consumption and discourage harmful practices. Education and promotional efforts in schools encouraging sustainable practices such as organic and more sustainable diets, will highlight options for students to take action. Measuring policy success should go beyond gross domestic product (GDP) to incorporate social and environmental achievements.
- Companies need to try out new ways of conducting business to improve our impact on the planet. We also need leadership that considers the environmental and social impacts of production. Enforcing sustainable production and **human rights** are necessary throughout the supply chain. Finding new ways to fulfill customer needs with minimal environmental impact is the name of the game.
- **Non-governmental organizations (NGOs)** play a key role in educating the public. Encouraging communication on wasteful heating, air conditioning, and household energy usage, as well as sustainable lifestyle choices, will help empower consumers to make informed decisions and collaborate on solutions.
- Consumers can hold governments and producers accountable to their promises and potential when it comes to sustainable production and regulation. Voting with our dollar, buying fair trade mobilizing our community, raising our voice and taking a stand against unsustainable practices are the best ways to change the course of our future from where we stand.

Adopting and promoting sustainable production practices require concerted effort, something which in practice is too often missing or insufficient. Making the shift at the scale required demands forwardlooking leadership in the public and private sectors alike.

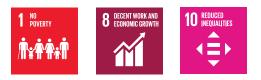
Helen Clark Former Prime Minister of New Zealand and former administrator of the United Nations Development Programme







# **CONNECTION TO THE OTHER GOALS**



Encouraging decent work and economic growth requires a dynamic and responsive cycle of production and consumption. There are clear connections between fair trade practices, ensuring decent work and responsible production and consumptions and reduced inequities around the word.



Ensuring the present and future health and well-being of our environment, both on land and in the sea, requires us to make some changes. We need to make our industry and infrastructure more efficient so we don't take more than we need, while research in innovative production methods will provide new solutions to our sustainability problems. Responsible production and consumption must include consideration of the effects of industry on both life on land and below water.

Sustainable development—development that does not destroy or undermine the ecological, economic, or social basis on which continued development depends—is the only viable pathway to a more secure and hopeful future for rich and poor alike.

> **Maurice Strong** Canadian businessman and diplomat





#### **Consequences of Inaction**

- At our current rate of consumption, we will need the resources of two Earths by 2030 to provide for our growing population.<sup>6</sup> Overconsumption happens when our use of resources outpaces the sustainable capacity of our ecosystems. If we don't do something to curb our consumption and make our production more sustainable, we are going to degrade our environment to a point of no return.
- Growth in population, urbanization and wealth over the next decades will increase waste and pollution volumes.
   Electronic waste management is also a growing problem, locally and internationally, with the rise of consumer electronics and computers. If we do not take action on these issues, our health and the health of our planet will suffer.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

\* Making conscious choices about what we eat, based on what the earth can sustain and what our bodies need, can help remind us that our whole society must begin to balance sustainable production with human need.

> **Frances Moore Lappé** American author of "Diet for a Small Planet"





# RESOURCES

#### How to take action

- Reduce your waste. Packaging is a huge waste and takes up valuable real estate in our landfills for centuries. Bringing your own containers, reusing glass and plastic containers and sharing them with your community are great ways to go zero waste. Buy what you need and reduce your food waste of perishable foods. Bring your own shopping bag, take fewer napkins and donate what you don't use.
- **Raise your voice.** Businesses and governments have the power to make huge changes in sustainable policies, attitudes and behaviours. It's our job to hold them to their promises and inform them of their harmful practices. Use your social media voice and the strength of your community network to fight for sustainable production.
- **Buy and eat locally.** Invest in the livelihoods of those who surround you while cutting down on transportation and production emissions. Buying and eating locally produced food can help create a more sustainable production and consumption cycle, making our communities more sustainable while addressing economic and environmental concerns.
- Start a fashion revolution. Bring attention to the unequal working conditions some factory workers face in the clothing industry. Join the movement to demand safe working conditions, more transparency from large factories and parent companies, safety and respect for workers and protection of our environment by asking "who made my clothes?" Host a movie night and screen The True Cost, hold a clothing swap, shop locally and have an inside out day to showcase your clothing tags. You can also host an Ethical Fashion Show in your community or at your school, showcasing fair trade items.
- Learn more about Fairtrade's work and bring the initiative to your community! Learn where the products you use have come from, what is involved in the process, and ensure that those workers and their communities are being protected socially, environmentally, and economically through the fair trade approach. Host an officially designated Fairtrade event, become a Fairtrade Ambassador, or become a Fairtrade Campus, Town, School, Faith Group or Workplace. Find more information here or contact Fair Trade Manitoba for assistance.
- **Shop smart.** Not only can you know if your food and clothing products are made ethically, you can also do the same for jewelry. Investigate the companies you buy from and understand where that gold, silver or diamond came from, how it was mined and how its production impacts people around the world.



#### **Educational resources**

- Visit the World's Largest Lesson for Goal 12 for multiple lesson plans, corresponding PowerPoints, and visual materials.
   <u>Exploring the Circular Economy</u> (ages 12 to 19) focuses on comparing living systems with man-made systems and investigating an alternative economic model. <u>Understanding Sustainable Living</u> (ages 11 to 14) explores the concept of sustainability, using the Global Footprint Network to track current lifestyle choices and explores alternative options.
- Learn about how stuff gets from a clump of raw materials to your mall in this series called the <u>Story of Stuff</u>. Their videos are informative and challenge consumers to make responsible choices.
- Learn how to make changes in your school's waste and sustainable practices through the <u>Manitoba Ministry of</u> <u>Education</u>. Explore teaching resources, case study resources and much more.
- Learn more about sustainable food choices from the <u>Jane Goodall Institute of Canada</u>, or take a look at their <u>Sustainable Food Curriculum Guide</u> for more ideas on how to take action.
- Bring simulation activities into the classroom to help students understand the processes of production. Christian Aid's <u>Chocolate Trade Game</u> (ages 11 to 18) traces the journey of the cocoa bean from tree to chocolate bar with students acting as farmers, companies, supermarkets, shoppers, and journalists. Oxfam's <u>The Clothes Line</u> (ages 7 to 11) teaches about fair trade, the textiles industry and the livelihoods attached to the clothes on our backs.
- Have students fill out the <u>You Are What You Wear</u> worksheet from Climate Change Connection and discover their impact on the environment through their wardrobe.
- Did you know that November 25th is Buy Nothing Day? Since the early 1990s, <u>Buy Nothing Day</u> has worked to inspire
  individual and collective action against consumerism. They encourage consumers to be considerate of the impact of
  their needs and desires, while trying to provide for themselves and reduce our burden on our environment by reducing,
  reusing and recycling. Engage your students, school, and community through this initiative and learn more about
  consumption patterns.
- Fairtrade is an initiative that ensures better prices, decent working conditions and fair terms of trade for farmers and workers. Fairtrade represents a form of responsible production and consumption by supporting small-scale farmers and workers as they work to improve their lives and communities. A product that is marked as Fairtrade certified ensures the producers have met Fairtrade social, economic, and environmental standards to protect workers' basic rights, protecting the environment, and improving their economic standing through ownership, minimum pricing and a Fairtrade premium. Go to Fairtrade Canada for materials and resources for your classroom and school, including posters, brochures, merchandising material and more. You can also <u>contact MCIC</u> for Fairtrade materials, workshops and displays.





# **CASE STUDIES**

### Intermarché

French supermarket Intermarché is taking a stand against the 20 to 40 per cent of produce that is wasted because of its perceived imperfections. While just as nutritious, these lumpy lemons, curly carrots and obscure oranges are getting their moment in the sun and are sold to customers at lower cost to encourage reductions in food wastage. The surprise rise in consumption of these "inglorious fruits and vegetables" has encouraged other retailers to look at ways they can improve their production and reduce waste.

#### 2 Rwanda Environmental Management Authority

Plastic is not biodegradable. When it ends up in landfills or as litter in our ecosystems, it can take hundreds of years to decompose, releasing toxins into the soil and water in the process. Additionally, producing plastic bags requires millions of barrels worth of oil and natural gas, only to be thrown out after a single grocery trip. As a means to make consumption more sustainable, the <u>Rwanda Environmental Management Authority</u> has banned the use of plastic bags in the country. Many other municipal, provincial and national governments, including China, Kenya and Denmark, have banned or taxed the use of plastic bags in the effort to help clean up cities and decrease **non-renewable resource** dependency.

### **3** FoodCloud

Globally, 1.3 billion tonnes of food is wasted per year, using farmland the combined size of China, Mongolia and Kazakhstan combined to grow food that is never actually eaten. To reduce this, Iseult Ward and Aoibheann O'Brien co-founded FoodCloud, a food redistribution app available in Ireland and the United Kingdom. When a store has food they cannot sell, they upload a description of the food using their in-store scanner or the smartphone app. Local organizations such as breakfast clubs, homeless shelters and family support services are then notified that food is available for collection. It's a win-win-win: stores are connecting with their communities, local organizations receive adequate food for their programs and everyone is working toward reducing the negative social, economic and environmental impacts of food waste.

#### 4

### University of Manitoba Student Life Development

The <u>University of Manitoba Student Life Development</u> group is working to reduce food waste through food dehydration in El Salvador. This project will process surplus locally sourced fruits using food dehydrators, providing employment for 30 youth living in the Provinces of Usulutan and San Miguel. By doing this, their project will help reduce waste and generate economic opportunities.

### Mennonite Economic Development Associates



Mennonite Economic Development Associates is working to improve the crop yield and income of organic farmers producing bio-fertilizer. Using organic bio-fertilizer has increased coffee and cocoa yields by up to 50 per cent in Peru. This project assists local cooperative Divisoria to scale up commercial production and sale of organic bio-fertilizer to 850 coffee and cocoa farmers in the regions of Huanuco, Ucayili and San Martin.

## Tearfund Canada



Tearfund Canada is working to improve the **food security** of families in the Malyo region of Northern Kivu in the Democratic Republic of Congo. This project helping improve the livelihoods and food security of vulnerable rural families in eight communities by building the capacity of 600 farmers to use **sustainable agricultural** practice. Farmers are provided with tools and improved seeds and are supported in forming small farming associations.

### **End notes**

<sup>1</sup>https://www.youtube.com/watch?v=Y-Unq3R--M0

<sup>2</sup>https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction

<sup>3</sup><u>http://www.un.org/sustainabledevelopment/sustainable-consumption-production/</u>

<sup>4</sup>http://www.un.org/sustainabledevelopment/sustainable-consumption-production/

<sup>5</sup>https://borgenproject.org/growing-consumer-class-africa/

<sup>6</sup>http://www.dailymail.co.uk/sciencetech/article-1320419/Humans-using-half-planets-worth-resources-need-Earths-2030.html

# **13** CLIMATE ACTION



### TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS

**Climate change is the biggest threat to our development and well-being, impacting all life on the planet.** The poorest and most vulnerable populations face the undue burden of adapting to climate change while dealing with economic impacts. Due to the global nature of this problem, we need global cooperation to find solutions, adapt to its effects and develop low-carbon pathways to a cleaner future. We need to align our attitudes, behaviours, and activities with sustainable principles in order to change our climate course.

# **TARGETS**

- Ensure people, particularly vulnerable populations, are well prepared for hazards related to climate change and natural disasters.
- Address issues of climate change through government action and resource allocation.
- Improve education, awareness, and capacity of climate change action, impact reduction, and early warning systems.

" Climate change is not just a problem for the future. It is impacting us every day, everywhere."

#### Dr. Vandana Shiva

Indian scholar and environmental activist



# LEARNING OBJECTIVES

- 1 Learners will understand the greenhouse effect as both a natural and human affected phenomenon caused by insulating layers of greenhouse gases.
- 2 Learners will understand the impact of human activities—on a global, national, local and individual level—on climate change.
- **3** Learners will be able to explain social, environmental, economic and ethical impacts of climate change.
- 4 Learners will be able to encourage others to protect the climate and collaborate on ways to make a difference.
- **5** Learners will be able to identify and promote climate-friendly policies and economic activities.

# **CURRICULUM CONNECTIONS**

#### Media

How does the media portray climate change?

#### Environment

What are ways we as citizens can protect the rights of our environment?

#### Poverty, wealth and power

How does climate change relate to the poverty cycle? How does climate change uniquely affect the poor?

#### **Indigenous peoples**

How are Indigenous communities being impacted by climate change?

#### **Oppression and genocide**

How is climate change linked to oppression?

#### Health and biotechnology

What are the biggest impacts of climate change on our health?

**Gender politics** How is climate change a gendered issue?

#### Social justice and human rights

How are human rights affected by climate change?

#### **Peace and conflict**

How does climate change impact war and conflict around the world?

# THE BIG QUESTIONS

### Where did it begin?

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- From rising temperatures and sea levels, to the number of casualties from climate-caused natural disasters, there are many ways we gauge the impact of human activity on **climate change** over time. The average temperature of the Earth's surface has increased by about 0.85°C in the last 100 years. Thirteen of the 14 warmest years ever on Earth were recorded in the 21st Century, with 2016 as the warmest year on record.<sup>1</sup>
- Burning **fossil fuels** like coal, oil, and natural gas have increased the concentration of carbondioxide. CO2 in our atmosphere. To add to this, the destruction of our forests has reduced the amount of CO2 we can absorb. **Greenhouse gases** are emitted into our atmosphere from natural and man-made sources, like CO2, methane, nitrous oxide, and ozone. Over the past centuries, the impacts of man-made emissions in our atmosphere have increased. These gases contribute to the overall increase in temperature because they trap solar radiation from the sun in our atmosphere, warming our planet.<sup>2</sup>

Because of this increase in temperatures, we have lost an average of 13.3 per cent of Arctic sea ice between 1981 and 2010.<sup>3</sup> Arctic ice coverage is vital to the survival of vulnerable ecosystems, species, and communities in the North, but it is also important to humanity at large. Arctic ice caps help cool sea and air temperatures by reflecting the sun's radiation away from Earth. Without it, our global temperature is only going to rise faster. Melting ice caps also raise global sea levels, affecting low-lying coastal areas and cities.

International political responses to climate change began at the Rio Earth Summit in 1992, with the development of the UN Framework on Climate Change, which targeted anthropogenic, or human-created, interference with the climate system. Targets to cap and decrease emissions for each country were established to control the amount of pollution and hold governments accountable for their actions. On April 22nd, 2016 (Earth Day), 175 Member States signed the Paris Agreement, aiming to reduce the pace of climate change and accelerate the actions and investments needed for a low-carbon future.



### **2** Why does this issue matter?

#### • Climate change is more than an environmental issue

While climate change has historically been framed as an environmental issue, its impacts are far-reaching for humanity. Loss of agricultural land due to drought impacts our **food security**; fresh water is increasingly becoming less accessible; climate change impacts our health and **sanitation**; and increases in natural disasters continue to threaten cities and populations. All of these adaptations require finances that could otherwise be invested into sustainable development to help prevent future issues.

#### Climate change is disproportionate

Pollution doesn't discriminate. It travels through our ecosystems and across borders. Because of this, it **disproportionately** and unfairly impacts a large number of countries that are not responsible for the source of any gas, smog, or other effects. Many countries that are historically more responsible for producing greenhouse gas emissions are less vulnerable to its effects the effects of climate change. Countries that have less capacity to take action and respond are particularly vulnerable.

#### It's our mess and we need to clean it up

The main sources of human activity that contribute to CO2 emissions are the combustion of fossil fuels for transportation and energy. Changing our emissions levels will require collective action and following through on our commitments to increase energy efficiency, conservation, and switching to **renewable** resources, as well as programs to capture CO2 from its sources. Reducing **deforestation** will support natural processes that capture CO2 emissions such as through **transpiration**. Forests act as natural air filters and we must protect them.

#### • Tackling climate change is integral to sustainable development

Increases in **extreme climatic events**, such as droughts, storms, floods and landslides, will make it difficult to provide and secure our basic necessities such as fresh water, food security, and energy. Climate change reaches across all countries, however, poor and developing countries remain the most vulnerable to adverse effects and the least able to address the social, economic and environmental impacts. Climate action is extremely important because it affects all of us, and is interconnted with every other goal.



### **3** Who and what are affected?

#### Island states and coasts

Coastal zones and island states are more negatively affected by climate change because of rising sea levels.<sup>4</sup> If we experience a sea-level rise of about 40 cm by the 2080s, assuming increased coastal protection, 55 million people would be flooded annually in south Asia; 21 million in southeast Asia, the Philippines, Indonesia, and New Guinea; 14 million in Africa; and 3 million in the rest of the world.<sup>5</sup>

#### • Farmers

Increases in drought, flooding, and high temperatures have made agriculture one of the most susceptible sectors to climate change. Farmers play a n importantrole in increasing food security, so building resilience is key to ensure they are able to handle the changes ahead. Countries that rely heavily on agriculture for their **gross domestic product (GDP)** will be particularly vulnerable to climate change.

#### Vulnerable populations

People affected by **poverty** are more vulnerable to natural disasters because theyoften live in more hazardous places, have less protection, and may have fewer financial reserves, insurance or options. Poverty is a contributing factor to a person's level of access to resources to better cope with extreme weather events. **Gender**, in particular, plays a role in a person's vulnerability to climate change through the influence of gender roles on management of **natural resources**. Women are also more likely to bear the main impacts of increased **water scarcity** from climate change in their work and **nutrition**.<sup>6</sup>

The increasing frequency of extreme weather events, droughts and floods is in line with what climate scientists have been predicting for decades - and evidence is mounting that what's happening is more severe than predicted, and will get far worse still if we fail to act.

> **David Suzuki** Canadian environmental activist

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### 4. What needs to be done?

- No single act will solve the problem of climate change. Addressing its impacts will take a serious reduction in greenhouse gas emissions through changes to our social, economic, political, and cultural systems.
- Policies and collaborative actions are needed to reduce our global energy consumption and help curb the amount of fossil fuels we consume. Raising taxes on fuel while offering reductions in other taxes can help change public perception of consumption. Governments need to seriously commit to their obligations under international policies and protocols if we are going to see any significant change in emission levels. Canada has agreed to a number of international environmental agreements that will address different aspects of these goals, but there is still a lot of work to be done.<sup>7</sup>
- As a resource-dependent sector, improvements to transportation play a huge role in reducing our carbon emissions. Using a **systems approach**, one way we can improve our transportation is by better connecting our urban centres within a city to reduce unnecessary CO2 emissions.
- Developing renewable resources, such as biomass fuels, wind turbines, solar panels, and geothermal energy can help reduce reliance on **non-renewable sources** like coal and fossil fuels.
- Many business leaders around the world have identified climate change and environmental degradation as growing
  risks to business growth and development. Businesses are also developing solutions to climate change through
  innovation and long-term investment in energy efficiency and low-carbon development. Businesses can also be a part
  of the solution by decarbonizing their operations and **supply chains**.<sup>8</sup> Innovations like electric cars and renewable
  energy sources have already come a long way, and will continue to help reduce dependence on fossil fuels.
- Society is playing its part by raising awareness on the issues and highlighting the personal and community responsibilities to prevent climate change. In order to change our consumption habits, we need to understand, decrease and offset our **carbon footprint**.



# **CONNECTION TO THE OTHER GOALS**



Finding sustainable solutions within development requires attention to our impact on climate change at many different levels. Addressing climate change requires us to act in a number of sectors to innovate, invest in, and improve our resilience to climate change, while we decrease our emissions and reliance on fossil fuels.



The impacts of climate change also intersect with inequalities such as gender, poverty, food security, health and wellbeing. Understanding how climate change uniquely impacts these areas will help us improve the sustainability and inclusiveness of our solutions.

# " It's a collective endeavour, it's collective accountability and it may not be too late."

**Christine Lagarde** French managing director, International Monetary Fund



#### **Consequences of Inaction**

- If left unchecked, climate change will reverse a lot of the progress made over the past years. It can also exacerbate current threats such as food and water scarcity, which can lead to conflict.
- Doing nothing will result in severe human, economic and climatic global consequences. It will end up costing us a lot more in every area if we don't take action now. Action now will protect our planet, help create more jobs and greater prosperity, ensuring better lives for all, while also reducing greenhouse gas emissions and helping build climate resilience.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- B How has this problem changed over time? Where do you see it going in the future?
  - What questions do you still have?

" There's one issue that will define the contours of this century more dramatically than any other, and that is the urgent threat of a changing climate."



# RESOURCES

#### How to take action

- Change your habits. Be energy efficient and choose renewable power. Save electricity by turning off appliances and electronics when you're not using them, freeze fresh produce before it goes bad and replace inefficient light bulbs. Save gas by running all your errands at once and take advantage of your right to elect leaders who support sustainable policies and solutions.
- **Discover** <u>Carbonmap.org</u> and see how cartograms are used to illustrate the gap between responsibility and vulnerability to climate change. Learn about different areas and brainstorm how to take action.
- **Calculate your carbon footprint** and learn how to offset what you cannot reduce using <u>Climate Neutral Now</u>. Measure, reduce, offset.
- **Reduce, reuse, recycle.** Recycling paper, containers, electronic equipment, and batteries helps conserve energy and reduce pollution caused by resource extraction, manufacturing, and disposal. Print double-sided, recycle used cartridges, and donate equipment to other organizations.
- **Speak up.** Ask local and national decision-makers to support initiatives that don't harm people or the planet. Voice your support for policies and protocols that your government has yet to sign or haven't followed through on.
- **Support the movement by getting involved.** Join a March for Science, attend a rally for Earth Day, or host a fundraiser for an initiative tackling climate change in your local community or abroad. Use your voice and presence to make a difference.
- **Start a 'No Idling At School' campaign**. Learn about the negative effects of vehicle idling, share the knowledge around school, and encourage staff, students, parents and public transportation systems to turn off their vehicles while waiting. Have a team of students monitor traffic and parking lots to ensure the rule is followed and everyone is doing their part.
- **Start a composting program** at your school. Not only will you help promote responsible consumption, but you'll help the earth by providing nutrients back into the soil.
- **Host an art exhibit.** Use the various posters and graphic designs available from the <u>Global Goals website</u> or create art out of recycled materials. Enlist students and community members to showcase the impacts of climate change through art and help create awareness about climate change. Allow free access or fundraise by charging admission and donate the funds to a climate action organization!
- **Visit the** <u>David Suzuki Foundation</u> and learn how to take action by cutting your carbon emissions, travelling sustainably and going **carbon neutral**. All of these ideas can be adapted for the classroom and community.



# **13** CLIMATE ACTION



#### **Educational resources**

- Visit the World's Largest Lesson for Goal 13 for multiple lesson plans, posters, and other visual materials. <u>The Impact of Pollution on Our Planet and Our Lives</u> (ages 11-14) is a lesson plan that has students explore different forms of pollution, plot locations on a world map, and learn how to prevent them in the future.
- <u>Canada in a Changing Climate: The Living World</u> (Grades 7-8) is a teachers' guide designed by Canada Science and Technology Museums Corporation, Canadian Geographic, and the Government of Canada for geography and science classes. The guide focuses on students developing a better understanding of the contributing factors of climate change and its effects on **biodiversity** and the living world. The guide includes background information on climate change, a glossary and key vocabulary, additional resources, strategic planning by province and a variety of engaging activities. Individual lesson plans and resources can be found here.
- A number of <u>resources and methods</u> have been collected by Learning For Sustainable Futures (LSF). Targeted toward educators, LSF helps educators engage their students in addressing the increasingly complex economic, social and environmental challenges of today's world.
- Explore UNICEF's <u>Get Real on Climate</u> page (Grades 9-12) for a number of lesson plans and activities addressing climate change and exploring possible solutions.
- Use Development and Peace's <u>Climate Balloons</u> activity with a group of 10-30 people. Students will critically analyze the local human causes of climate change while exploring their negative global impacts.
- Try out some of the climate-focused games and activities on the <u>NASA website</u> or take on the <u>Games for Change</u> <u>Student Challenge</u>, and play or create a climate change game.
- Track your ecological footprint using <u>Footprint Calculator</u>, understand <u>Country Trends</u>, and discover <u>case studies</u> from Global Footprint Network. These resources allow users to track how natural resources are used and how consumption, populations and more combine to affect our planet.

# **CASE STUDIES**

### Vanuatu

13 CLIMATE ACTION

Vanuatu, an island in the South Pacific Ocean, is home to the world's first climate change refugees. In 2005, the UN Environmental Programme reported that 100 villagers were forced inland because of rising sea levels. Vanuatu is already vulnerable to increased storm activity due to low lying geography and limited resources. **Capacity building** programs, such as the Pacific Adaptation to Climate Change, are laying the groundwork for Pacific communities to improve capacity on a local level, while pushing for climate change planning and activity at the national level.

### **2** Paris Agreement

Signed in 2016, the Paris Agreement is taking collective action for a common cause, combating climate change and promoting adaptation strategies for its effects. The agreement aims to keep global temperature increases well below two degrees strengthen the ability of countries to deal with climate change, develop new technological frameworks, and support the capacity for both developed and developing countries to combat climate change. The agreement was signed by 196 countries, including Canada, and is the largest agreement of its kind.

### **T**'sou-ke First Nation

The T'sou-ke First Nation, located on the Southwest coast of Vancouver Island, B.C., wanted an autonomous energy grid and sustainable solutions for their community. The project is twice as large as any other solar project on the island. The visionary energy plan considers their impact seven generations into the future.

### , Canadian Physicians for Aid and Relief

Canadian Physicians for Aid and Relief are working in Tanzania's Rubana river and wetland region to promote integrated land rehabilitation and food security for local communities in the area, promoting awareness of the causes and consequences of environmental degradation. The rural farmers, half of whom are women, formed field schools to provide training designed to rehabilitate the land and riverbanks. They also introduced conservative agriculture practices so families can increase their crop yields and household incomes.

### 5

### Primate's World Relief and Development Fund



The Primate's World Relief and Development Fund is working in Bangladesh to reduce climate change vulnerability by promoting resilience through local knowledge. This project is working with six vulnerable communities to enhance their resilience to future droughts, cyclones, and floods. Using strategic climate change adaptation for specific situations, the project promotes resilience among vulnerable households under climate stress conditions.

# 6 Prairie Wind Mennonite Church

Prairie Wind Mennonite Church is promoting resiliency by constructing a sand dam in Eastern Kenya. The Rift Valley of Kenya suffers from persistent drought and riverbeds dry up quickly. Sand dams create a natural reservoir during the rainy season, providing a year-round supply of water close to home. Local residents, particularly women and girls, are spared the daily trek to fetch water from a distant source.

#### **End notes**

<sup>1</sup> https://www.nytimes.com/interactive/2017/01/18/science/earth/2016-hottest-year-on-record.html?\_r=00
<sup>2</sup> http://environment.nationalgeographic.com/environment/national-geographic-sustainability/carbon-footprint/
<sup>3</sup> https://climate.nasa.gov/vital-signs/arctic-sea-ice/
<sup>4</sup> https://www.youtube.com/watch?v=dq234w56n20
<sup>5</sup> http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=674
<sup>6</sup> http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=674
<sup>7</sup> https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/participation-international-environmental-agreements.html
a http://www.un.org/sustainabledevelopment/wp-content/
uploads/2016/07/16-00055 Why it Matters Climate Action Business letter size 1p.pdf

# **14 LIFE BELOW WATER**



# CONSERVE AND SUSTAINABLY USE OUR OCEANS, SEAS AND MARINE RESOURCES

Oceans, coastal zones and marine resources are essential to human well-being, as well as social and economic prosperity worldwide. Beyond humankind, oceans support over 200,000 identified species and countless other species that have yet to be discovered. Keeping our oceans clean and healthy is in our best interests because they help protect our drinking water, weather, climate, food and oxygen. Managing the impact of trade and transportation means increasing international cooperation to protect vulnerable habitats, invest in sustainable industry practices, and address wasteful habits.

# **TARGETS**

- Reduce marine pollution by 2025 by reducing sources of pollution from human sources on land.
- Enact laws that protect our oceans from destructive fishing practices such as illegal fishing and overfishing.
- Minimize the impacts of ocean acidification through enhanced scientific cooperation and action at all levels.

"We know that when we protect our oceans we're protecting our future."

> **Bill Clinton** Former US President



# LEARNING OBJECTIVES

- 1 Learners will understand the basics of our marine ecosystem, threats to its well-being and our connection to the sea and the life it holds.
- 2 Learners will understand the role of climate change on our oceans, and the role oceans play in moderating the effects of climate change.
- **3** Learners will be able to identify the need for sustainable fishing practices and the impact humankind is having on the health of our oceans.
- 4 Learners will be able to research their country's relationship to the sea and debate improvements to sustainable methods of collecting natural resources.
- 5 Learners will be able to identify and advocate for improved access to sustainably harvested marine life, marine conservation and the development of scientific marine research.

# **CURRICULUM CONNECTIONS**

### Media

What are some important considerations for reporting on stories of marine sustainability?

## Environment

How does marine conservation differ from other environmental issues?

## Poverty, wealth and power

How are different populations affected when environmental protection is not a priority?

### **Indigenous Peoples**

How are Indigenous communities protecting and advocating for our ocean environments? How are they uniquely affected by its degradation?

### **Oppression and genocide**

What happens to environmental protection during times of genocide and conflict?

### Health and biotechnology

How does the health of our ocean environments affect the health of all global citizens?

## **Gender politics**

How is the health of our oceans related to gender issues?

## Social justice and human rights

How are people advocating for the protection and conservation of our oceans, seas and marine resources?

## **Peace and conflict**

What conflicts have occurred, or are ongoing, regarding the protection of our oceans and their resources?

# **THE BIG QUESTIONS**

# Where did it begin?

LIFE BELOW WATER

- The protection of our marine environments is integral to the species that live in them and the communities that rely on them. From absorbing carbon dioxide (CO2) and managing the temperature of our atmosphere, oceans help balance our climate system. The health of our oceans impacts the realities of **climate change** in a big way. Over time, human activity has contributed to the negative impacts of climate change on our planet and our own oceanic well-being.
- From food and medicine to fuel and fun, oceans provide a wealth of resources to humanity. Over three billion people depend on marine and coastal **biodiversity** for their livelihoods, with fisheries alone directly or indirectly employing over 200 million people.<sup>1</sup>
- **Marine ecosystems** represent the largest aquatic ecosystems on our planet. From salt marshes to coral reefs and estuaries to the sea floor, marine waters cover two-thirds of the surface of the Earth. Marine ecosystems have extensive biodiversity and support a large amount of **biomass**, or the mass of all species in an ecosystem. Did you know our oceans contain 36 million tonnes of blue whales and 379 million tonnes of Antarctic krill?<sup>2</sup>
- Oceans, seas and marine resources (such as fish, gas, minerals, renewable energy and tourism) are increasingly being threatened, degraded or destroyed by human activity. Pollution from chemicals like phosphates, lead, oil, nitrates, mercury, land run-off, overfishing and the destruction of coastal habitats for human expansion are all negatively impacting the well-being of the species who live in our marine ecosystems.
- Acidification, caused from increased absorption of CO2 in our oceans, is making our waters more acidic, with harmful consequences on marine organisms, such as decreasing species immune responses and coral bleaching.
- **Marine conservation** involves protecting and preserving our ocean's ecosystems by limiting human-caused damage, restoring damaged ecosystems and establishing protective policies and projects to ensure humanity understands and respects the fine balance of life under water.



# **2** Why does this issue matter?

#### • Oceans are important to our economy

Did you know that our coastal and marine resources contribute an estimated \$28 trillion to the global economy each year?<sup>3</sup> Despite how much we rely on these resources, they are extremely vulnerable to environmental degradation, overfishing, climate change and pollution. Protecting our oceans means stopping overfishing to improve our ecosystems and biodiversity. In order to find a healthy balance, our planet's fish stocks need to be kept within sustainable limits, at or above the abundance level that can produce maximum sustainable yields.<sup>4</sup>

#### • Our ecosystems need to be protected

River basins, marine ecosystems, coral reefs, the sea floor and the atmosphere are all part of the **hydrological system**. The extent and connectivity of this system means the impacts of pollution are often felt far from their source. The hydrological system is important for climate change regulation because of the role it plays in absorbing heat and CO2 from the atmosphere and protecting coastal areas from flooding and erosion.<sup>5</sup>

Since the beginning of the industrial revolution, the ocean has absorbed about one third of the CO2 released by human activities, reducing the full impact of climate change.<sup>6</sup> Protecting our hydrological system means developing policies and programs that ensure ecosystems upstream and downstream are preserved.

#### We need more scientific cooperation and international laws

In order to conserve our oceans and reduce our impact, we need to develop strong platforms and policies that support and protect our water ecosystems. Investing in knowledge, improved technologies and ways to minimize acidification through scientific research and development are essential to achieving this goal. Ensuring that our governments, businesses and decision-makers protect our coastlines and oceans from overfishing and illegal fishing can help our coastal communities develop more sustainable practices.

Why is it that scuba divers and surfers are some of the strongest advocates of ocean conservation? Because they've spent time in and around the ocean, and they've personally seen the beauty, the fragility and even the degradation of our planet's blue heart.



# **3** Who and what are affected?

#### • Our ocean species and ecosystems

Sewage, industrial chemicals, land runoff, oil spills, mining and litter make up the largest sources of pollution in our oceans. The diversity of pollution sources increases the diversity of consequences to our ecosystems as well—from depleted oxygen levels and disruption of photosynthesis for coral and seaweed to accumulated waste in the food chain, our oceans are taking a beating from our business activities and behaviour. Runoff from fertilizers can cause **hypoxic zones**, or areas of the ocean with insufficient amounts of oxygen, light and nutrients to support other species caused by increases in algae.

#### Our population

When our oceans are polluted, it's not just our ecosystems that pay the price. In an ecosystem of fish eating other organisms polluted with chemicals, levels of toxicity will rise over time. When we eat contaminated fish, we are digesting mercury, nitrates and micro-plastics. When consumed, it can increase our likelihood of diseases such as Parkinson's disease, Alzheimer's and heart disease.<sup>2</sup> The oceans provide us so much and it's our responsibility to respect our ecosystems and our health by keeping it clean for generations with come.

# **4** What needs to be done?

- To repair our oceans and allow them to flourish in the future we need to increase international cooperation to protect vulnerable habitats, invest in research and sustainably harvest our natural marine resources. No act is too small—making changes to our daily lives to stop contamination in our marine ecosystems is an essential part of the process.
- To manage our impact on marine resources, we need to improve the uptake of sustainable social, political and economic practices through good governance and public accountability. Illegal fishing, and overfishing in particular, are being targeted as detrimental industries to the health of our oceans. Through the choices we make, we can put pressure on decision-makers to choose the sustainable path.
- Healthy oceans make for healthy humans, and they sustain life on Earth. When we protect key ecosystems, habitats, and species in marine protected areas (MPAs), we can restore and replenish biodiversity, along with social, cultural, and economic resources. With only 3.4 per cent of our oceans under protection, we need to encourage representatives and decision-makers to develop policies that encourage the designation of MPAs and partnerships that increase investment in these protected areas.<sup>8</sup>
- As the cause of, and solution to, pollution on Earth, we have to start with ourselves if we want to improve our oceans. If researchers can develop sustainable **renewable resources**, we can also learn to recycle and pick up after ourselves. Social actions to reduce **fossil fuel** usage like taking public transit, or reducing pollution by eliminating plastic bags and cleaning our beaches, can have a great impact on the health of our oceans.





# **CONNECTION TO THE OTHER GOALS**



Initiatives to protect our oceans should identify ways to reduce the amount of pollutants entering our water systems through human activity. Addressing populations' sustainable access to fresh water and **sanitation** will help in reducing pollutants entering our water ecosystems. Collaborative programs that address human activity while protecting life on land and life below water can help keep our oceans healthy and clean.



Ensuring we buy only what we need is a huge part of responsible consumption. Making sure products are recyclable and safe for our waters will help reduce the threat to our oceans, seas and marine resources.



Clean and biodiverse oceans have a direct relationship to our health and well-being. In achieving good health and **food security** for all, we need food that is healthy and free of bio-accumulated chemicals like mercury. We can improve the health of our food by reducing pollution, paying attention to fishing habits and techniques, and investing in research to address pollutants already in our oceans.

I had fought on behalf of man against the sea, but I realized that it had become more urgent to fight on behalf of the sea against men.







### **Consequences of inaction**

- An inability to control climate change impacts will result in the rise of our oceans and severe effects on our coastal regions, especially in low-lying areas and increasingly vulnerable island nations. Without investment in climate change action, it is estimated that the cost of damage to the ocean will be US \$322 billion per year by 2050.<sup>9</sup>
- By failing to take control of marine pollution, we will have negatively impacted the health and biodiversity of our oceans species and ecosystems. The spread of hypoxic dead zones will increase, ultimately impacting key marine industries like tourism and fishing, and the livelihoods of many.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself.

> **Rachel Carson** American marine biologist and author

# RESOURCES

### How to take action

4 LIFE BELOW

- **Reduce, reuse, recycle.** We need to manage our plastic waste, along with other pollutants, that end up in our oceanic ecosystems. Our plastic production needs reassessment, but in the meantime we need to clean up the mess we've made by making sure we properly dispose of our waste. Cut up the plastic rings that hold cans together, so that if they find their way into our watery ecosystems we can prevent marine life from becoming stuck or injured.
- **Use fewer plastic products.** Try to bring your own reusable bottles, cutlery, and bags to reduce the amount of plastic waste thrown away. Limit micro-plastics commonly found in clothes, and only buy clothes when you need them. Refuse to buy products with microbeads, such as some toothpastes and facewashes, as these beads can end up in water systems.<sup>10</sup>
- **Volunteer clean up.** Keeping your local waterways clear of trash is a great way to stop pollution in our oceans downstream. Work with your local government, community leaders and businesses to avoid plastic that is detrimental to our oceans and waterways.
- **Get creative.** Innovation can fuel a conservation and recycling revolution. Put your thinking cap on and bounce around a couple of ideas for compostable product wrappers, or maybe an ingenious ocean cleaning mobile.
- **Join a movement.** Write your local government representatives and tell them why marine conservation and protection is so important to your future and the future of our planet. It doesn't matter where you are, the health of our oceans affects each and every one of us.
- **Buy seafood sustainably.** As a consumer, you influence the seafood industry with your money so make sure your money is representing your values in protecting our waters. <u>Download the SeaChoice App</u> and learn how to make the best choices at your grocery store and restaurants.
- Bring the Yellow Fish Road campaign to your community. Simple tasks that use water such as bathing your dog, changing your oil and making a garden can all create **water pollution** through the build-up of grease, oil, soaps and fertilizers. The <u>Yellow Fish Road</u> campaign encourages people to pause and think about what we are putting into our water supply by painting yellow fish on storm drains.
- **Participate in a campaign.** Take part in the <u>Give Water a Hand</u> campaign and help solve real water problems in your own community. Download their guides and get started by completing a checklist. Map a watershed, connect with a local expert, find a local service project and take action.
- **Host a documentary screening**. Show your class or community why protecting our life under water is crucial for our planet's survival. Watch films such as *Mission Blue* or *Oceans* and let the imagery speak for itself.

# **Educational resources**

LIFE BELOW Water

- The World's Largest Lesson plan for Goal 14 has downloadable comics, posters and lesson plans <u>here</u>. Included is the lesson plan <u>Protect Life Below Water</u> (ages 11 to 14). This lesson focuses on exposing students to the dangers of damaging Earth's seas and oceans. Students will explore ideas of how to use the ocean sustainably and view imagery that exposes ocean pollution such as acidification, overfishing and waste. <u>Wild For Life</u> (ages 8 to 12) is a lesson focused on understanding the plight of endangered species, how individual actions contribute to improving the environment and understanding the interconnectedness of humans with the living and non-living environment.
- From ocean acidification to tsunamis, the National Oceanic and Atmospheric Association has a wealth of information about the and what we can do to help. Find a variety of educational resources here.
- Bring the ocean to your classroom. Learn about our oceans biggest and smallest creatures and our history and
  relationship to the big blue ocean from <u>National Geographic's Ocean Education</u> collection. With activities for K to 12,
  you're sure to find something your students will love.
- Have you ever heard of the <u>Trash Vortex</u>? Encourage your students to learn more about where our waste goes by exploring videos and articles about the country-sized floating island of trash in the North Pacific. Follow up with these ocean toolkits available through Greenpeace.
- The Vancouver Aquarium has a wealth of <u>educational resources</u> and archived <u>live streams</u> about marine life including topics like saving endangered species and protecting our wildlife who call the ocean their home.
- Learn about the Stow it-Don't Throw it Campaign to prevent marine debris and fuel ocean conservation, with these helpful student resources.
- Fishing for the Future (Grades 6 to 12) is a simulation game where students experience the "Tragedy of the Commons". Through a hands-on game of depletion of fishing resources, their actions reflect real-life consequences of overfishing and failing to protect ecosystems. Using candy and a variety of props, students will explore population growth and sustainable fishing practices, followed by a discussion, writing connections and action project ideas.



# **CASE STUDIES**

# Tanzanian Society of Agricultural Education and Extension

Interlake youth in Manitoba are passionate about environmental issues and concerned about the future sustainability of the fishery on Lake Winnipeg. Many similar issues of ecological damage also affect the long-term livelihoods for young adults living along Lake Victoria in Tanzania. In this partnership, youth in the Rural Municipality of Gimli connected with the <u>Tanzanian Society of Agricultural Education and Extension</u> (TSAEE) to work to address water and environmental issues. TSAEE supports ongoing initiatives to protect the Lake Victoria environment by providing extension education to mobilized youth groups participating in agricultural activities adjacent to the lake.

# 2 The Story of Stuff

<u>The Story of Stuff</u> is a movie turned global movement that draws attention to our society's relationship with "stuff": how we have too much, how too much of it is toxic and how we don't share it very well. Beginning with a 20-minute online movie, the project has now expanding to include millions of change makers worldwide. With different initiatives such as the "Plastic Free Challenge" and "Stop Microfiber Plastic Pollution", The Story of Stuff continues to challenge the way in which our consumer society functions while aiming to protect life on land and life below water.

# **B** Papahanaumokuakea Marine Protection Area

In 2016, UNESCO and former US President Barack Obama established the largest marine protection area in the world in the state of Hawaii. The reserve, called <u>Papahanaumokuakea Marine Protection Area</u>, lies 250 kilometres northwest of the main Hawaiian Islands and is home to a fifth of the ocean's known fish species.<sup>1</sup> Protecting this area will help protect the fragile biodiversity and ecosystems that exist in our oceans and will serve as an example for marine areas around the world.

# **4** The Ocean Cleanup

More than five trillion pieces of plastic currently litter the ocean, threatening ecosystems and their biodiversity. In attempt to combat this plastic impact, <u>The Ocean Cleanup</u>, founded in 2013, is committed to collecting ocean garbage using innovative technology. Using a system and model that works with the ocean's currents rather than against them, a continuous hard-walled pipe attached to a screen will collect and keep trash until it is able to be extracted. Flexible enough to move with waves yet rigid enough to do its job, The Ocean Cleanup system could clean up 50 per cent of the Great Pacific Garbage Patch in five years.



# 5 Winnipeg Rotary Club Community Service Fund



The <u>Winnipeg Rotary Club Community Service Fund</u> is working in South Sudan to promote sustainable aquatic harvesting through their Ziam-Ziam/Panpoil Community Fishing Project. The project aims to provide food aid and a long-term economic development opportunity to a conflict ravaged community of 3,000 people (637 households) in South Sudan. Hooks and nets will be provided to increase fishing for consumption and barter trade.

# **6** Narayana Peesapaty

Aware of the impact and damage plastic cutlery poses to our environment and oceans, <u>Narayana Peesapaty</u> founded Bakey's Food Private Limited and developed edible cutlery. Made from flours of jowar, blended with rice and wheat, the cutlery is 100 per cent natural, biodegradable and edible. Available in a variety of tastes, Bakey's Edible Cutlery is another innovative approach to reducing the amount of plastic that ends up in our water systems, ultimately helping the health of marine life, our oceans and us.

# **End notes**

https://www.unenvironment.org/explore-topics/sustainable-development-goals/why-do-sustainable-

development-goals-matter/goal-14

<sup>2</sup>http://www.coolantarctica.com/Antarctica%20fact%20file/wildlife/krill.php

- <sup>3</sup>https://sustainabledevelopment.un.org/sdg14
- <sup>4</sup>https://sustainabledevelopment.un.org/sdg14

<sup>5</sup>https://www.unenvironment.org/explore-topics/sustainable-development-goals/why-do-sustainable-

development-goals-matter/goal-14

<sup>7</sup>https://www.divein.com/articles/ocean-pollution/

<sup>8</sup>http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/07/16-00055\_Why\_it\_Matters\_Climate\_

Action\_Business\_letter\_size\_1p.pdf

<sup>9</sup><u>https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/14\_Why-lt-Matters-2020.pdf</u>
<u>https://www.youtube.com/watch?v=BqkekY5t7KY</u>

"http://www.un.org/sustainabledevelopment/blog/2016/08/unesco-hails-creation-of-worlds-largest-marineprotected-area/

# **15** LIFE ON LAND



# SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

**Healthy ecosystems are essential for supporting a wide array of species.** Humans are not removed from this cycle, as we rely on our environment to keep us healthy, fed and supported in our daily lives. Without sustainable development, protecting the diversity of life on our planet and keeping ourselves warm and fed can seem like an impossible task. Protecting our lands means protecting the soil and species that live there. This is particularly important for industries located near natural ecosystems such as mining and agriculture. The right balance between our needs and the needs of our planet is essential to preserving life on land.

# **TARGETS**

- Protect and conserve ecosystems (such as deserts and rainforests) by respecting international agreements and halting biodiversity loss.
- Reduce deforestation, plant more trees to increase reforestation and sustainably manage forests for the future.
- Protect and prevent the extinction of endangered species by controlling hunting and trafficking protected flora and fauna.
- Involve Indigenous communities in the conservation of our ecosystems.

One individual cannot possibly make a difference, alone. It is individual efforts, collectively, that makes a noticeable difference—all the difference in the world!

> **Dr. Jane Goodall** British primatologist and UN Messenger of Peace



# LEARNING OBJECTIVES

- Learners will understand basic ecological systems and biodiversity, with reference to local and global ecosystems.
- 2 Learners will understand the threats posed to biodiversity, such as habitat loss, deforestation, overexploitation and invasive species.
- **3** Learners will understand the importance of stopping destructive environmental practices that cause biodiversity loss.
- 4 Learners will be able to connect with local groups and advocate for a life in harmony with nature.

# **CURRICULUM CONNECTIONS**

#### Media

What important perspectives are needed for a story on environmental issues?

## Environment

How is humanity a part of our natural environment and apart from it?

### Poverty, wealth and Ppower

How does deforestation, and other forms of environmental degradation, relate to poverty?

### **Indigenous Peoples**

How have Indigenous communities advocated for environmental protection?

#### **Oppression and genocide**

How does war impact environmental conservation?

### Health and biotechnology

How does environmental degradation impact our health?

#### Gender politics

How is soil degradation a gendered issue?

### Social justice and human rights

How do minorities and vulnerable populations experience environmental degradation and/or resource extraction uniquely?

### **Peace and conflict**

How can we develop a program for peace that includes environmental protection?



# **THE BIG QUESTIONS**

# Where did it begin?

- When we talk about **biodiversity**, we are discussing the variety of life in the world in general, as well as a particular habitat or ecosystem. When ecosystems are healthy and supportive, they are considered rich in biodiversity. Tropical forests and marine coastal zones are particularly rich in biodiversity. We need ecosystems to support the well-being of the environment and humanity, therefore biodiversity is essential in helping keep systems balanced. For example, the Catskill watershed near New York City contains a number of diverse species of plants that help provide drinking water for the city. If the biodiversity of this area is impacted, it could harm this supportive ecosystem environment and reduce its ability to provide clean water.
- Damage to biodiversity is sadly on the rise. According to the UN, between 1990 and 2015, forest coverage has diminished from 31.6 per cent to 30.6 per cent of the world's total land mass.<sup>1</sup> This loss was mainly caused by deforestation for agricultural and infrastructural development. Biodiversity is affected by increases to human consumption, populations and resource extraction.
- Indirect drivers have direct impacts on biodiversity through over-exploitation, habitat change, pollution, invasive species and climate change. New species introduced to an ecosystem can be a threat and competition for resources to indigenous species that may not adapt as well to change, such as Japanese knotweed or the cane toad in Australia.
- To ensure global biodiversity for the future, protected areas have been established and identified as key biodiversity areas. In 2014, 15.2 per cent of the world's terrestrial and freshwater environments were covered by protected areas.<sup>2</sup>
   Protecting our ecosystems is slowly gaining more momentum, with the percentage of key terrestrial areas covered by protected areas increasing from 16.5 per cent in 2000 to 19.3 per cent in 2016.<sup>3</sup>
- We need biodiversity and the systems it supports (such as disease resistance and water purification for humans) to change the course of climate change and natural disasters. Strong biodiverse systems help limit the negative impacts of climate change by strengthening the health of the ecosystem and its ability to adapt to change.



# **2** Why does this issue matter?

#### • We need to reduce deforestation and desertification

Combating **environmental degradation** and threats to biodiversity is integral to ensuring agriculture is able to positively impact valuable ecosystems for future generations. Currently, 2.6 billion people depend on agriculture as their livelihood, however over half of the land used is moderately to severely affected by **soil degradation**.<sup>4</sup> When the soil becomes unable to support growth, it becomes desert, a process called **desertification**. In order to reverse desertification, we need to mitigate drought and stop overuse, poor crop rotation and climate change to see the return of the green.

#### We need to increase biodiversity and end threats to endangered species

Biodiversity is mutually beneficial for us and for our planet. All organisms need food to eat, shelter to protect them and resistance to damaging forces like climate change, disease and habitat changes. Humans in particular need biodiversity to sustain resources we use for health, food and infrastructure development. While we are expanding protected areas, the risk of **extinction** is still threat for many vulnerable species due to ongoing human activity and expansion. Of the 8,300 animal breeds known, 8 per cent are extinct and 22 per cent are at risk of extinction.<sup>5</sup>

#### We need to improve conservation efforts

**Environmental conservation** is the practice of protecting an ecosystem on individual or governmental levels. Conservation can be done through policies, economic incentives, voluntary practices, and public campaigns. Threats to conservation occur when people do not respect policies or conduct illegal activities (such as poaching animals in conservation areas) that put strain on species that are in need of protection. Since 1999, at least 7,000 animal and plant species have been detected in the illegal trade.<sup>6</sup> Enforcement of protective policies and the **ratification**, or validation and action, of international agreements need to be maintained in order to make a difference.

We must protect the forests for our children, grandchildren and children yet to be born. We must protect the forests for those who can't speak for themselves such as the birds, animals, fish and trees."

> **Chief Qwatsinas (Edward Moody)** Nuxalk Nation, British Columbia



# **3** Who and what are affected?

#### **Soil**

Healthy soil supports healthy and sustainable ecosystems for plants, animals, and humans. Sadly, arable land loss from soil deterioration is estimated to be 30 to 35 times the historical rate in recent years.<sup>2</sup> Soil needs roots to hold it together and help maintain the balance of nutrients.

Deforestation, desertification and floods can impact soil structure, drainage, acidity and nutrients levels that contribute to erosion and degradation. Protecting our biodiversity means supporting our ecosystems from the ground up with sustainable practices.

#### Vulnerable populations

Almost 75 per cent of the world's poor are affected directly by land degradation.<sup>®</sup> **Poverty cycles**, uneven **gender** responsibilities and unequal access to resources, **sanitation** and services makes adapting to changes in land quality difficult for vulnerable populations such as women, Indigenous communities, rural communities and the poor. Increases in pollutants, infectious diseases and poor hygiene and nutrition put additional strains on those who are marginalized.

#### • Farmers

As the main industry impacting biodiversity, deforestation and the quality of our soil, agriculture plays an integral role in ensuring our ecosystems are healthy and sustained. **Sustainable agriculture** needs to be accelerated and researched to improve the uptake of renewable practices by farmers.

Farmers play a critical role in meeting this **sustainable development** goal by conserving our ecosystems and ensuring future **food security**. Sharing knowledge, improving access to agricultural tools, protecting harvests and prioritizing research are great ways to improve the resilience and sustainability of farmers impacted by land degradation.

\* Education, if it means anything, should not take people away from the land, but instill in them even more respect for it, because educated people are in a position to understand what is being lost. The future of the planet concerns all of us, and all of us should do what we can to protect it. As I told the foresters, and the women, you don't need a diploma to plant a tree.

> **Wangari Maathai** Kenyan environmental activist and Nobel Peace Laureate

# 15 LIFE ON LAND

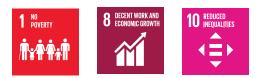


# 4 What needs to be done?

- Improving biodiversity and reversing land degradation requires a **systems approach** to protecting and conserving our ecosystems and species, while allowing agriculture and industry to support drivers of human development.
- Instead of responding to issues on a case-by-case basis, taking an ecosystem approach to resource management and environmental protections considers the interrelationships of ecosystems as a whole into decision making. Working with decision-makers and diverse **stakeholders** like farmers, national parks staff, environmental groups and citizens helps introduce a collaborative approach to conservation.
- International environmental agreements are important to protecting vulnerable ecosystems and species from damaging human impacts at local, national and international levels. Agreements are usually legally binding and have implications if they are not followed. Some of the most well-known agreements include the Kyoto Protocol and the Geneva Protocol.
- **Non-governmental organizations (NGOs)** at local, national and international levels are integral to supporting specific environmental concerns as well as organizing citizen, business and governmental efforts to conserve and protect our environment. Organizations like Greenpeace, World Wildlife Fund, Jane Goodall Insitude of Canada and David Suzuki Foundation are integral to raising awareness and holding stakeholders accountable to social, economic, and political commitments to protect and conserve.
- Changes to our own habits and practices are essential for reducing our environmental impact and ensuring a sustainable future for humanity. Taking on a particular initiative to raise awareness, donating funds or making a positive change in your community's relations with the environment are great ways to get involved. Global change starts with you.



# **CONNECTION TO THE OTHER GOALS**



Improving biodiversity, reversing land degradation and implementing sustainable agricultural practices intersect with a number of other goals. By improving food security, reducing inequalities between urban/rural and gender divides, and improving decent work by investing in sustainable agricultural jobs, everyone benefits and Life on Land targets are met.



From medicine to makeup, we depend on our ecosystems for our health, well-being and economic development. Biodiversity and the quality of our ecosystems are powerful indicators letting us know the sustainability, or unsustainability of our impact on the environment.



Reducing deforestation and soil degradation and increasing resilience to natural disasters are all connected with efforts to put an end to human impacts on climate change. Addressing our high emissions and reliance on non-renewable resources will help us maintain an ecologically sound future.



### **Consequences of inaction**

- Lowering the biodiversity of our planet will cost us valuable resources in our economy. For example, insects and other pollen-carriers alone are estimated to be worth US\$200 billion per year to the global food economy. No more bees, no more food or money, honey.
- Three-quarters of the top-ranking prescription drugs contain components that are derived from plant extracts.<sup>10</sup> Decreasing the biodiversity of our ecosystems jeopardizes our own well-being in addition to our planet's.
- Increased natural disasters caused by disrupted ecosystems from human impact and climate change already costs the world more than US\$300 billion per year.<sup>11</sup> Failing to curb deforestation and reestablish healthy forest ecosystems will only increase that financial cost for our governments, while putting vulnerable populations under even more strain.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- What questions do you still have?

The environment, after all, is where we all meet, where we all have a mutual interest. It is one thing that all of us share. It is not only a mirror of ourselves, but a focusing lens on what we can become.





# **RESOURCES**

### How to take action

- **Reduce, reuse, recycle.** Consider a life with less packaging by reusing containers and bringing your own bag. Recycling and reducing our waste will mean less of it ends up in our ecosystems. Sort your recyclables correctly, use reusable food wrap, keep a reusable water bottle handy, don't print if you don't have to, turn off the lights and take shorter showers. These are all small actions that can help make a big difference for our planet.
- **Eat local, organic and fair trade.** When we eat local, we reduce the amount of emissions needed to transport our produce from far away. Organic-, Rainforest Alliance- and Fairtrade-certified products ensure the environment and farmers are getting a fair deal. In particular, they protect local ecosystems from harmful practices, overuse of pesticides and unsustainable sourcing that damages ecosystems near agricultural and recreational land.
- Go vegetarian. Beyond ethical and health reasons, increases in meat consumption mean increased demands for agricultural lands that are often reclaimed from natural ecosystems. Find out what produce is grown locally and whether it's organic or less resource intensive. Try going vegetarian or reduce your weekly consumption to ensure we keep our forests sustainably wild and free.
- **Respect our wildlife.** If you're heading out on a holiday, make sure you choose ethical and responsible eco-tourism opportunities. It's important to utilize tour operators that respect ecosystems to ensure our leisure doesn't result in habitat loss or animal harm.
- **Use your voice.** Be a voice for our planet and advocate for your community and government to support well-managed, healthy and protected ecosystems through policy support, awareness and actions. Learn about environmental management in your area and find time to do a clean-up challenge with your school or community organization. Get involved in the preservation of vulnerable or important ecosystems in your community.
- Plant trees. Follow the lead of <u>Think Trees</u>. With million of trees planted by Manitobans, this Manitoba Forestry Association program focuses on revitalizing our province and giving back to our planet by encouraging tree planting and care, and connecting with schools in the province.
- Check out **Canadian Parks & Wilderness Society** (<u>CPAWS</u>). Learn more about campaigns within Manitoba to protect ecosystems and biodiversity. See what's happening within the province and choose an issue to work on.
- **Take your students to a provincial park near you.** Explore biodiversity and the local ecosystem. Check out Manitoba's <u>Education for Sustainable Development page</u> for more information. Students can also become Nature Detectives, Junior Naturalists or Park Explorers through <u>this program</u> with Manitoba Parks.
- Join Go Wild Manitoba. Help conserve plant and animal species in Manitoba.
- **Host an event.** Help educate your community on the importance of Goal 15. Run an assembly, a photo gallery showcasing local wildlife or another event and raise awareness for protecting our planet.



### **Educational resources**

- The World's Largest Lesson page for Goal 15 has downloadable comics, posters and lesson plans <u>here</u>. You can also download a lesson for 11-14 year olds about <u>The Impact of Pollution on our Planet and Lives</u>. This lesson highlights the different forms of environmental pollution and explores ways to reduce pollution. <u>Wild for Life!</u> (ages 8 to 12) is a lesson plan on the topic of endangered species and includes a fun quiz for students to find their kindred species. It also explains how individual choices and actions can contribute to improving the environment.
- The Ontario Teacher's Federation has a collection of <u>resources and lesson plans</u> (Grade 6) from outdoor observation to biodiversity gardens. Or take a look at this biodiversity resource list for all ages, from the <u>Toronto District School Board</u>.
- The United States Environmental Protection Agency has a number of <u>lesson plans and resources</u> focusing on air, climate change, ecosystems, energy, health, waster and water.
- Consider these National Geographic Society lessons on deforestation and environmental management for use in your classroom. Explore how deforestation in the Amazon rain forest affects the water cycle, nutrient cycle and plant and animal life using this <u>activity</u>.
- The World Wildlife Fund has a number of <u>lesson plans</u>, <u>project ideas</u>, <u>and additional resources</u> to help bring environmental conservation to your classroom.
- Check out these 50 <u>youth-led solutions and ideas</u> for implementing the SDGs, including several solutions and ideas for Goal 15. Some examples include solutions for Brazilian nut farmers sustainably coexisting and preserving the rainforest in Peru, digital land resource management apps used in Ghana, and a program to engage students in sustainability efforts across the UK, run by students, for students.
- Learn more about sand dams and how they work to conserve water during the dry season through this <u>Mennonite</u> <u>Central Committee video</u>.
- Share the BBC Planet Earth video series with your students as you teach about biodiversity. Check out this <u>lesson plan</u> <u>about biological diversity</u> (Grades 4 to 6) that explores species extinction and the effect on food webs.
- Learn which species and ecosystems are <u>endangered in Manitoba</u> or more about <u>biodiversity in the province</u> using information from the government of Manitoba website.



# **CASE STUDIES**

# World Wildlife Fund (WWF)

Reducing deforestation has a huge impact on improving quality of soil and preventing erosion. Sustainable forest management and reforestation are both necessary and possible through the preservation of forest ecosystems. The World Wildlife Fund (WWF) has worked closely with a number of national governments to establish successful programs to raise awareness about deforestation and how to put an end to it. In 2004, Paraguay implemented a Zero Deforestation Law with the help of the WWF, reducing their deforestation rate by 85 per cent in the following years.<sup>12</sup>

# African-Eurasian Migratory Waterbird Agreement

Because of how far and wide they travel, migratory birds are particularly vulnerable to habitat loss and threats to biodiversity. For example, land reclamation, changes in agricultural practices, and poaching have resulted in a sharp 80 per cent decline in the breeding population of the Red Knot bird in North America since 2000.<sup>13</sup> In partnership with the UN Environmental Programme, the African-Eurasian Migratory Waterbird Agreement was developed as a plan of action to protect these birds and ensure their habits remain intact and their populations stable.

# **Great Green Wall**

The Great Green Wall is an initiative developed and launched by the African Union to stop the impacts of climate change and desertification in the Sahara. Its goal is to reverse land degradation, increase food security and climate change resilience for local communities through reforestation and increased sustainable agriculture in rural communities. The initiative is encouraging awareness and education through **South-South cooperation**, or exchanges of resources, technology, and knowledge, between developing countries.<sup>14</sup>

# **Canadian Physicians for Aid and Relief**

Canadian Physicians for Aid and Relief has been developing integrated land rehabilitation and support for Tanzania's Rubana River and surrounding wetlands by increasing local awareness of the causes and consequences of environmental degradation. Rural subsistence farmers, half of which are women, formed 33 farmers' field schools. The schools provide training designed to rehabilitate the land and riverbanks. They also introduced conservation agriculture practices so families can increase their crop yields and household incomes.

# **15** LIFE ON LAND



# USC Canada

USC Canada has been working to promote sustainable agricultural practices that improve the food and economic security, agricultural biodiversity, and nutrition of small-scale farmers from 63 communities in the Northern Potosi region of Bolivia. With an emphasis on water harvest structure, seedling production, nutrition and farmers' innovation, this project is empowering rural women, men and youth to improve sustainable livelihoods and environmental resilience.

# **5** Cuso International

<u>Cuso International</u> is developing a program called B-ADAPT to reduce the impacts of **overconsumption** in Cameroon's forested regions. Started in 2013, this project will seek to improve agricultural techniques in Cameroon's two Model Forests to preserve the forests while ensuring local economic stability in the face of rapidly changing climate patterns. Yields of the highly nutritious moringa plant will be scaled up and promoted as a viable alternative to illegal logging. Two thousand producers will have increased access to improved production systems.

### **End notes**

- <sup>1</sup>https://sustainabledevelopment.un.org/sdg15
- <sup>2</sup>https://sustainabledevelopment.un.org/sdg15
- <sup>3</sup>https://sustainabledevelopment.un.org/sdg15
- <sup>4</sup>http://www.un.org/sustainabledevelopment/biodiversity/
- <sup>5</sup>http://www.un.org/sustainabledevelopment/biodiversity/
- <sup>6</sup>https://sustainabledevelopment.un.org/sdg15
- <sup>7</sup>http://www.un.org/sustainabledevelopment/biodiversity/
- <sup>8</sup>http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/15\_Why-it-Matters\_Goal15\_Life-on-Land\_3p.pdf
- <sup>9</sup>http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/15\_Why-it-Matters\_Goal15\_Life-on-Land\_3p.pdf
- <sup>10</sup> http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/15\_Why-it-Matters\_Goal15\_Life-on-Land\_3p.pdf
- <sup>n</sup>http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/15\_Why-it-Matters\_Goal15\_Life-on-Land\_3p.pdf
- <sup>12</sup>https://www.worldwildlife.org/threats/soil-erosion-and-degradation
- <sup>13</sup> http://www.un.org/sustainabledevelopment/blog/2017/05/on-world-migratory-bird-day-un-spotlights-commondestiny-for-wildlife-and-people/
- <sup>14</sup> https://www.youtube.com/watch?v=kmgrwW5fQ5E

# **16** PEACE AND JUSTICE STRONG INSTITUTIONS



# **PROMOTE JUST, PEACEFUL AND INCLUSIVE SOCIETIES**

Peace, justice and the institutions that support and protect the rights of citizens are the foundations of sustainable development. People need to be free of fear from violence and feel safe wherever they go, regardless of their ethnicity, faith or sexual orientation. Crime and violence threaten peaceful societies, and even in the world's greatest democracies, corruption, crime and human rights violations still occur. This goal is all about ensuring our communities, governments and institutions protect and promote inclusion and respect toward people of all backgrounds.

# **TARGETS**

- Reduce all forms of violence and related death rates everywhere.
- End abuse, exploitation, trafficking, violence and torture against children.
- Promote equal access to justice for all through the strengthening of transparent, inclusive, participatory and responsive legal systems at national and international levels.
- Substantially reduce bribery and corruption in all forms through accountable and transparent institutions.
- Provide a legal identity for all, including birth registration, by 2030.
- Promote and enforce non-discriminatory laws and policies for sustainable development.

" Justice and peace can only thrive together, never apart."

#### **Oscar Arias Sanchez** Costa Rican Politician & Nobel Laureate



# **LEARNING OBJECTIVES**

- 1 Learners will understand concepts of justice, inclusion and peace and their relation to law, both in their country and internationally.
- 2 Learners will understand the importance of individuals and groups upholding justice, inclusion and peace in their country and internationally.
- **3** Learners will be able to connect with others to facilitate peace, justice, and stronger institutions in their country.
- 4 Learners will be able to reflect on their role in issues of peace, and show solidarity for those suffering from injustice in their own country and abroad.
- 5 Learners will be able to critically assess issues of peace, justice, inclusion and strong institutions in their region, nationally, and globally.

# **CURRICULUM CONNECTIONS**

### Media

Why is it important to be critical of media in relation to reporting conflict?

### Environment

How do peace and justice impact our environment?

### Poverty, wealth and power

How does extreme wealth and corruption contribute to the poverty cycle?

## **Indigenous Peoples**

What is unique about Indigenous justice systems and what can we learn from them?

### **Oppression and genocide**

How do genocides begin and what can be done at different levels to intervene?

### Health and biotechnology

How does peace impact our health?

### **Gender politics**

How are justice systems impacting gender inequalities?

### Social justice and human rights

What is the process of reporting a human rights abuse? How are they dealt with?

### **Peace and conflict**

How has the idea of worldpPeace changed over time? How are genocide, war crimes, and crimes against humanity prosecuted?



# **THE BIG QUESTIONS**

# Where did it begin?

- A **legal system** refers to the processes of dealing with offences and the institutions (courts, police, prisons and lawyers) that enforce and enact these laws. A well-functioning legal system is efficient, protects **human rights** and promotes inclusion, with comprehensive laws that are easily understood and accessed by citizens.
- Each country has their own legal system, with their own laws and institutions; however, human rights are moral principles that have been understood as **inalienable**, meaning they can't be taken away by anyone. An example of a human right is the freedom from unlawful imprisonment, torture or execution.
- Many of the basic ideas that became a part of the human rights movements were developed in the aftermath of the Second World War and the events of the Holocaust, resulting in the Universal Declaration of Human Rights in Paris by the United Nations General Assembly in 1948.<sup>1</sup>
- Human rights are enforced at international, national and regional levels. If an individual commits a crime, they are dealt with by the police and the judicial system. But what if a state commits a crime? When this happens, the United Nations or a regional court system like the European Court of Human Rights can become involved to maintain or restore peace and security. There is also the International Criminal Court (ICC), which investigates and prosecutes individuals responsible for genocide, war crimes, and crimes against humanity. Considered a court of last resort, domestic courts still have a primary responsibility to act.<sup>2</sup>
- When countries want to recognize or support a cause, they often sign **treaties** with other countries or international organizations. Treaties are agreements recognized under international law that hold those that sign them accountable to protect or promote a particular collection of just rights. An example of a treaty is the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) or the Global Plan of Action to Combat Trafficking in Persons.
- While human rights and treaties exist to protect the rights of all, many countries and political organizations continue to marginalize, oppress and attack groups either directly through force, or indirectly by not recognizing them or their rights. Amnesty International found that torture and abuse still exists in 81 countries, unfair trials in at least 54 countries and restricted freedom of expression in at least 77 countries.<sup>3</sup> At the same time, many countries are advancing legislation that protects the rights of marginalized communities, such as LGBT and migrant communities.
- Conflicts differ greatly because of their particular histories and causes. However, inequalities within societies and
  regions, discrimination, competition, and the lack of political, social and economic support are often responsible for
  conflicts at different levels. Finding common ground, a common agenda and practical solutions are important steps
  to manage conflict between different groups to bring peace. Strong laws, equitable judicial systems and responsible
  enforcement are also key to maintaining peace.



# **2** Why does this issue matter?

#### • We need to ensure equal access to justice and legal information for all

Without transparent and effective legal systems or representation and protection through laws, conflicts go unresolved and people cannot obtain protection and redress, or compensation for a wrongdoing. When institutions don't function according to legitimate laws, they can often be inconsistent, abuse their power and fail to deliver public services to all. When legal systems and institutions exclude and discriminate, not only do they violate human rights, but it can lead to political unrest and violence.

#### Justice needs to be timely

When people are accused of a crime, but haven't been found guilty, they can be held in detention until their court date. When judicial systems are inadequate, people can end up spending years detained for a crime they did not commit. Globally, the proportion of people held without sentencing has decreased slightly, from 32 per cent of detainees in 2003-2005 to 30 per cent between 2013-2015.<sup>4</sup> However, improvements still need to be made to improve the efficiency and adequacy of judicial systems and process cases to respect the dignity of their citizens.

#### Laws need to be dynamic and current

It is vital that laws are flexible, current and reflect changing social dynamics as well as basic human rights. These are particularly important to protect people who are often taken advantage of, such as women, LGBTQ (Lesbian, Gay, Bisexual, **Transgender** and Queer) communities and Indigenous populations. LGBTQ rights have been considered human rights by Amnesty International, however, many governments refuse to recognize same-sex relationships, penalizing consensual same-sex individuals with fines, jail terms or the death penalty. In addition, many countries' laws do not adequately address human trafficking issues.

#### Corruption is still a problem

Corruption costs us all. Dishonest or fraudulent conduct by those in power, such as bribery, theft and tax evasion, costs US \$1.26 trillion for developing countries per year.<sup>5</sup> Government, institutional and business corruption means we have less money to support sustainable development. This impacts citizens' trust in their representation. Did you know that the amount of money we lose to corruption could easily be used to lift those living under the international poverty line (of US \$1.90\_per day above this mark for at least six years?<sup>6</sup>

#### • We need to end violence against children

Violence against children, while terrible, does happen. From physical punishment to psychological aggression, trafficking or discrimination, the long term repercussions for children are often grave and damaging. More than half of children between the ages of 1 and 14 were subjected to some form of psychological aggression and/or physical punishment at home. In Northern Africa, this applied to more than 90 per cent of children.<sup>7</sup>



# **3** Who and what are affected?

#### Women and children

When it comes to **trafficking**, or the illegal trading of humans, women and children are often the most vulnerable to exploitation. Both women and children are often taken advantage of in situations of poverty. Trafficking is a violation of human rights and condemned by international conventions. Policy action and effective security and judicial systems are needed to effectively investigate and prosecute traffickers and help victims.

#### People without ID

Having legal documentation, like an ID card or birth certificate, helps ensures your rights are protected and proves you are who you say you are. However, not everyone has one. Many people around the world can't access political, legal and social services because they don't have a secure legal identity. Administrative hurdles, discrimination, poverty and limited awareness keep many women and vulnerable groups from securing citizenship or registering their marriage or child's birth.<sup>8</sup>

#### Vulnerable populations

In many countries and states, discrimination is common against minorities on the grounds of their sexual orientation, ethnicity, **gender**, age, marital status, ability and religion. Anti-discrimination laws ensure the rights of all people to be treated equally. For example, the criminalization of lesbian, gay, bisexual, transgender and queer people serves as justification to prosecute and punish people solely for their sexual orientation. Laws banning the promotion of LGBTQ exist to punish people from promoting LGBTQ inclusion and their rights.

Many Canadians are proud of our progressive and welcoming stance for new Canadians. However, we must consider the effects of racism, colonialism and other settler impacts within Indigenous communities today. In one compelling article, the author argues that on almost every measurable indicator, Canada's Indigenous populations have worse outcomes than African-American populations in the USA.<sup>9</sup>

Women, who are a majority of the peoples of the earth, are indispensable to the accumulation of the kind of social capital that is conducive to development, peace, justice and civility.

> Mahnaz Afkhami Iranian-American human rights activist



# 4 What needs to be done?

- **Social justice**, or the fair and just relation between the individual and society, is an ongoing struggle for the inclusion and equity of all people within social, economic and political institutions. Promoting opportunities for diversity through social justice movements encourages innovation and improves participation. Promoting social justice in health means providing services that address the particular needs of everyone, such as the homeless and other vulnerable populations.
- In tackling violence, governments, civil society and communities need to improve systems and channels to deliver justice, combat corruption and ensure inclusive participation at all times.
- Policies promoting anti-discrimination, justice and inclusion are essential to representing all humans and their particular identities. Access to capital, freedom of movement and protection from exploitation need legal affirmation to improve the ability for programs to address issues related to poverty.
- Particularly for women and girls, the violence against them is rooted in discrimination, social norms and stereotypes. In order to make an impact in stopping violence, prevention should start early in life and at the root of the cause, through education about respectful relationships and **gender equality**.
- People need to be able to contribute to decisions that affect their lives, without discrimination. Working to improve awareness of human rights legal documentation is essential to accessing necessary services and stopping exploitation.

\* Every time we turn our heads the other way when we see the law flouted, when we tolerate what we know to be wrong, when we close our eyes and ears to the corrupt because we are too busy or too frightened, when we fail to speak up and speak out, we strike a blow against freedom and decency and justice.

> John F. Kennedy Former US President





# **CONNECTION TO THE OTHER GOALS**



**Malnutrition**, unequal access to education and poor **sanitation** can be caused by corruption at government, business, and community levels.



**Decent work**, innovation and infrastructure, and economic growth means promoting the inclusion of everyone in the workforce and stopping human trafficking through legal systems.



In order to have **sustainable cities** and communities, local and national governments need to be transparent and responsive and ensure marginalized populations are heard and recognized.



Partnerships between different institutions and nations are important for promoting and understanding sustainable development and justice, including international treaties. Recognition and respect of existing treaties is necessary in achieving peace and justice collectively.



### **Consequences of Inaction**

- If we fail to promote peace and put an end to violence, we are subjecting vulnerable populations to injustice and the violation of their human rights. By failing to address trafficking, we are denying 800,000 men, women and children per year access to education, healthcare, **food security** and basic human rights.<sup>10</sup>
- When corruption goes unstopped, public funds are removed from valuable projects and initiatives that support us all. Mistrust of public institutions and businesses lack of transparency can result in violence and civil unrest from.
- If we do not support efforts to ensure everyone has access to justice, people around the world will continue to find themselves without access to effective, accountable institutions or legal standing under the law.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- 4 What questions do you still have?

# "There can be no peace without justice and respect for human rights."

#### Irene Khan

Bangladeshi lawyer and former Secretary General of Amnesty International



# RESOURCES

### How to take action

- **Know your rights, know your risks.** Learn about all the ways human rights protect you from violence, exploitation, and discrimination. Share this information with your community and help others understand how they can get help if they need it. Knowing your rights is the best way to ensure you receive fair treatment.
- **Sign up and speak up.** Get informed about corruption and take a stand against greed by signing petitions to end corruption and holding public servants and business owners accountable for their actions.
- **Raise awareness about human trafficking** and initiate action through your local community. Learn what the signs of someone being trafficked are and find out where people can turn to for help.
- **Support local organizations.** Find out what social justice struggles are important to you and your community and find ways to support organizations doing this kind of work. Give your time, talent and resources to help make a difference for people who have faced exploitation, violence, and discrimination.
- **Support anti-bullying efforts in your school and promote peace.** Or, consider hosting a conflict resolution workshop and help others learn new skills. Safe Schools Manitoba has some great resources on these topics.
- **Consider joining an advocacy campaign**, such as the Development and Peace <u>advocacy page</u> or Mennonite Central Committee <u>advocacy campaign page</u>. You can decide what issues are most important to you and build your own campaign for peace.
- Start a Peace Club in your school or attend a peace gathering in your community to show your support for peace.



#### **Educational resources**

- The World's Largest Lesson page for Goal 16 has downloadable comics, posters and lesson plans <u>here</u>. You can also download <u>The Power of Peace</u> (ages 8 to 11). This lesson explains some definitions of peace and explores the role of peaceful activists. <u>Understanding Community Violence</u> (ages 11 to 14) discusses violence around the world and helps students develop solutions for preventing violence.
- Another great resource is <u>Humanitarian Perspective</u> (ages 10 to 17). Made available by the International Federation of Red Cross and Red Crescent Societies, this activity explores the ideas of human dignity and humanitarian action.
- Younger students can explore the idea of forced migration and fleeing a crisis through the <u>Holiday Bag or Get-Away Bag?</u> (ages 6 to 12) activity. This lesson helps students understand the impact fleeing from a desperate situation can have on someone's life.
- For more resources and activities, download the YMCA's <u>Peace Building Activity Guide</u>. It includes activities for children, youth and adults.
- Check out this list of lesson plans and resources from UNICEF for teaching children's rights to Canadian students.



# **CASE STUDIES**

### Gacaca Courts

Following the Rwandan Genocide in 1994, more than 130,000 alleged **genocide** perpetrators were being held in prison by 2000.<sup>11</sup> In order to deal with the quantity of citizens on trial, the country adopted a traditional cultural communal law enforcement system called the <u>Gacaca courts</u>. The courts placed an emphasis on communal healing and rebuilding in the wake of the Genocide, relying on community members to help reconcile disputes and crimes within their area.

### **2** Journalists for Human Rights

Journalists for Human Rights (JHR) is an international media organization that promotes the empowerment of journalists to cover human rights stories objectively and effectively. The organization wants to make sure everybody in the world is aware of their rights. By working with local journalists to understand what human rights are, how to identify media angles that are empowering for victims, and how to seek action and retribution for stories they cover, JHR is helping to improve the ability for journalists to speak up for people that don't have a voice and make positive changes in their communities.

### Pro Bono Students Canada - The ID Project

The ID Project, run by <u>Pro Bono Students Canada</u> in Ottawa, is coordinating lawyers, non-profit organizations and students to help vulnerable populations obtain and replace identification cards. For people who are illiterate or do not have a fixed address, the process of obtaining identification can be a barrier. Ensuring everyone is represented and able to obtain social services is a huge step forward in addressing important elements of the poverty cycle.

### **4** University of Winnipeg Faculty of Education

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The <u>University of Winnipeg Faculty of Education</u> is providing teacher training on peace-building and counselling skills in South Sudan. Their work enables partners from the University of Juba, UNICEF South Sudan and the University of Winnipeg to develop teacher training to better prepare teachers to meet the needs of children living in post-conflict situations.

### Make Music Matter

<u>Make Music Matter</u> is working to empower children of children-headed households through a one-year project using music production to provide psychosocial support to child-headed households and their communities in rural Rwanda through song. This work assists in reducing trauma and supporting economic opportunity within a post-conflict and extreme poverty context.



### 6 Inter Pares

Inter Pares is working in Colombia, El Salvador, Guatemala, Mexico, and Peru to promote human rights and peace throughout Latin America. They are strengthening the effectiveness of Project Counseling Service, a Latin American organization that supports people regaining control of their resources, asserts the political participation of women and Indigenous peoples, challenges economic exclusion and the impunity of the powerful, and builds democratic and authentic peace.

### **End notes**

- <sup>1</sup>https://www.youtube.com/watch?v=nDgIVseTkuE
- <sup>2</sup>https://www.icc-cpi.int/
- <sup>3</sup>http://www.humanrights.com/what-are-human-rights/violations-of-human-rights/
- <sup>4</sup>https://sustainabledevelopment.un.org/sdg16
- <sup>5</sup>http://www.un.org/sustainabledevelopment/peace-justice
- <sup>6</sup>http://www.un.org/sustainabledevelopment/peace-justice
- <sup>7</sup>https://sustainabledevelopment.un.org/sdg16
- <sup>8</sup>https://www.youtube.com/watch?v=f3Q21H624KI
- <sup>9</sup>http://www.macleans.ca/news/canada/out-of-sight-out-of-mind-2/
- <sup>10</sup>https://www.stopthetraffik.org/the-scale-of-human-traffiking
- <sup>1</sup>https://www.hrw.org/news/2014/03/28/rwanda-justice-after-genocide-20-years

# **17 PARTNERSHIPS FOR THE GOALS**



# STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

In order to achieve all the targets laid out in the 2030 Agenda, we will have to revitalize and enhance the ability for governments, civil society, the private sector, the UN and other stakeholders to mobilize the necessary resources. Improving effective support for developing countries, in particular the least developed countries and small island states, is essential to equal progress for all.

# **TARGETS**

- Help ensure all countries have met these goals by 2030. The Global Goals should be present in national plans and each state should decide which issues are most pressing for their country.
- Each state will allocate its own resources to achieve these goals, in addition to developed countries' commitment to support the achievement of these goals.
- Enhance multi-stakeholder partnerships within finance, technology, capacity building and trade sectors, while addressing systemic policy issues.
- Engage with organizations and individuals who have been working on various topics related to the Global Goals for years. Seek support and collaboration to achieve these goals.
- Ensure states improve their data and statistics management to be able to monitor and evaluate their progress and achievement of the Goals.

We must work... not wait. Not just the politicians and the world leaders, we all need to contribute. Me. You. We. It is our duty. "

#### **Malala Yousafzai** Pakistani education

activist and Nobel Laureate



# **LEARNING OBJECTIVES**

- 1 Learners will understand global issues, and the importance of global multi-stakeholder partnerships and the shared accountability for sustainable development.
- 2 Learners will understand the concepts around measuring progress on sustainable development.
- **Q** Learners will be able to raise awareness about the importance of global partnerships for sustainable development.
- 4 Learners will be able to work with others to promote global partnerships for sustainable development and demand government accountability for the SDGs.
- 5 Learners will be able to become agents for change and take on their role as active, critical, global and sustainable citizens.
- 6 Learners will be able to publicly demand and support the development of policies promoting global partnerships and sustainable development.

# **CURRICULUM CONNECTIONS**

### Media

How is development reported in the media? What role does the media play in ensuring the Global Goals are met?

### Environment

How can development remain environmentally conscious?

### Poverty, wealth and power

How are "South-South" partnerships for poverty reduction changing development? Do wealthy countries have unique obligations to implement the Global Goals?

### **Indigenous Peoples**

Why is Indigenous knowledge important in creating sustainable development policies and practices? How can Indigenous knowledge be incorporated into procedures?

### **Oppression and genocide**

How does oppression impact the distribution of social, economic, and political benefits of development?

### Health and biotechnology

How can we work together globally to ensure Goal 3: Good Health and Well-being for all? Can biotechnology play a role?

### **Gender politics**

What are important considerations for ensuring gender equality in international development?

### Social justice and human rights

What basic human rights are affected by the Global Goals? How will achieving the Global Goals improve human rights around the world?

#### **Peace and conflict**

How does war and conflict affect our ability to reach the Global Goals? How can we encourage peace and conflict mediation at a local, national, and international level?

### **17** PARTNERSHIPS FOR THE GOALS



# THE BIG QUESTIONS

### Where did it begin?

- In 2015, world leaders adopted the 2030 Agenda for Sustainable Development intending to end poverty, tackle
  inequalities and combat climate change. In addition to the 193 Member States of the UN, the goals sought to engage
  governments, civil society, scientists, academia and the private sector to achieve the Sustainable Development Goals.
- The Global Goals need diverse resources to achieve each of the specific aspects of sustainable development. Systems, organizations and **stakeholders** in charge of technology development, financial resources and **capacity building** need to be aware of their responsibility and roles to fulfill sustainable development commitments.
- Development as a field of study emerged largely out of concern for the economic prospects of the Global South after **decolonization** and the post-war period. Throughout the decades, different priority areas emerged between national, international and transnational groups and organizations.
- During the 1950s and 60s, modernization in line with Western countries was idealized as a goal for development. Others believed developing countries should contribute to economic development using products and equipment sourced from donor countries, a process called **tied aid**. However, during this period, developing countries began to sink into debt from an inability to repay loans spent on infrastructure and economic development, causing further complications in providing for their own citizens.
- Presently, international, national and community development efforts are focusing on **capacity building**, which prioritizes the ability for individuals and organizations to obtain, improve and retain skills and knowledge to support themselves. For example, capacity development for water and **sanitation** focuses on understanding the obstacles that stop governments, **non-governmental organizations (NGOs)** and citizens from accessing and distributing necessary resources and knowledge.
- Official development assistance (ODA) is the term used to measure aid and represents an indicator of international aid flow. ODA can be measured either in a dollar amount or by percentage of gross national income (GNI). The UN established a desired ratio of 0.7 per cent of a country's GNI per year. ODA must be provided by official agencies, such as government, to promote the economic development and welfare of developing countries. It also needs to be conessional (flexible, lenient loans) that include a grant element. Currently the top donators by percentage of GNI are Sweden (1.4%), the United Arab Emirates (1.09%), Norway (1.05%), and Luxembourg (0.93%).<sup>1</sup>
- **South-South Cooperation** is emerging as a way to share resources, technology, and knowledge between developing countries in the Global South. Increased cooperation between regional economic communities are helping to improve development prospects and encourage **solidarity** around certain issues like environmental protection and technological infrastructure development.



### **2** Why does this issue matter?

#### • We need to work together, and communication is key

In order to improve our partnerships and collaboration on key issues, we need to improve our communications infrastructure. Access to internet and broadband connections remain largely unaffordable and unavailable across much of the population in developing regions, highlighting digital divides in access to high-speed, high-capacity Internet services. In developed regions, one third of the population is online, versus 1 in 10 people in the least developed countries. Data also reveals that more men than women are online.<sup>2</sup> In order to improve our ability to share information, improve transparency, and encourage participation, we need to get everybody online.

#### We need to build capacity

ODA for capacity-building and national planning amounted to \$23 billion in 2014. Of that total, sub-Saharan Africa received \$6 billion and Southern and Central Asia received \$4.6 billion.<sup>3</sup> The main sectors receiving assistance were public administration, environment and energy, which together were allocated a total of \$9.3 billion.<sup>4</sup> Providing for a country's citizens is an expensive endeavour, especially when there are barriers such as tariffs, production costs and debt to contend with. Development assistance for capacity building helps eliminate these barriers and promote collaboration on a global level.

#### We need better data, monitoring and accountability

In order to achieve the Sustainable Development Goals, countries need both an action plan and to understand where we stand currently. Data collection and statistical research are key to understand what the priorities and needs are with regard to development. Population and housing censuses are often the primary way to collect and evaluate data needed for formulating, implementing, and monitoring development policies and programmes. During the 10-year period spanning 2006 to 2015, 90 per cent of countries or areas around the world conducted at least one population and housing census.<sup>5</sup>

You look at the large problems that we face that would be overpopulation, water shortages, global warming and AIDS, I suppose—all of that needs international cooperation to be solved.





### **3** Who and what are affected?

#### • Governments and organizations

Enhancing global partnerships are essential for sustainable development to succeed. Governments must establish priority areas and develop action plans to achieve them. To do this, they must understand who is already working in these areas and how research, evaluation and program delivery can be made more effective and realistic through funding and program support. Commitment to development assistance and social, economic and political changes needed to support sustainable development requires improved capacity for tax and revenue collection as well as transparency and accountability amongst stakeholders and systems.

#### • Women

**Gender equality** is essential to achieving all of the SDGs. However, women often face barriers to participating in and evaluating the implementation of programs that benefit women. Only five per cent of foreign aid funds had gender equality as a principal objective between 2012 and 2013.<sup>6</sup> In addition, only one-third of countries had an office for **gender** statistics.<sup>7</sup> Understanding data on gender is essential to defining priorities and action plans for gender equality, such as how many women lack clean water or are subject to abuse in their homes.

#### Private sector

The private sector plays a crucial role in supporting the realization of the SDGs. Private donations can be a great way to support a wide range of programs supporting **social justice** and sustainable development. Companies can play their part by evaluating their impact and establishing necessary actions to support equality and sustainability. Public-private sector partnerships and collaboration will help us attain the Global Goals by 2030.

I dream of the realization of the unity of Africa, whereby its leaders combine in their efforts to solve the problems of this continent. I dream of our vast deserts, of our forests, of all our great wildernesses.

**Nelson Mandela** South African anti-apartheid revolutionary and politician



### 4. What needs to be done?

- National plans and policies are being developed to improve financial, technological, and infrastructural support within and across countries to achieve the Sustainable Development Goals by 2030. Every country is starting from a different point, but ensuring a national vision and narrative for 2030 is integral to achieving each goal. For example, Sweden is taking the initiative to sign an international cooperation agreement for workers' rights in the textile industry in line with Goal 8 for **decent work**.
- Countries must work together to collaborate on data collection and management in order to understand trends, barriers, and opportunities for programs and funding. The Global Partnership for Sustainable Development Data is working to coordinate a network of governments, NGOs and businesses to collect and share data to improve sustainable development efforts.<sup>8</sup> From using satellites to monitor agriculture to citizen engagement tools to understand sanitation, the organization is working to ensure governments are given the tools they need to include everyone in their development efforts.
- We need to get involved at the community and organizational level to start. If we understand that building capacity and increasing participation are important to sustainable and effective programs, it helps us to take action. Getting involved and speaking up for inclusivity and sustainability will help keep our governments and decision-makers accountable to their commitments and focused on achieving the Global Goals by 2030.
- We need our governments to work together to make progress on the goals. Sharing information, resources, activities and capabilities will help us achieve things together we couldn't achieve on our own. Finding programs that have strong social and financial benefits will help align stakeholders to focus on a shared vision for program development.



# **CONNECTION TO THE OTHER GOALS**



Collaboration and partnerships between governments, the private sector, NGOs, and civil society means we all need to share our passion and commitment to tackling poverty, ending **hunger** and ensuring equality, well-being and sustainability remain a priority in our policies, actions and behaviours.



Involving the private and public sectors means investing in research, monitoring and evaluation to hold everyone accountable for the part they play in developing innovative and sustainable solutions to solve the biggest problems of our time



Tackling issues like sanitation, health and well-being and climate change requires a **systems approach** to understand who is impacted, who can assist, and how can governments, non-profits and private sector actors can work effectively to share the responsibility of achieving these goals.

Every goal is connected to Goal because they all require effective partnerships to succeed.





#### **Consequences of Inaction**

- Failing to leverage global partnerships will result in wasted money, wasted time and wasted lives. When governments, businesses and civil society focus on their areas of expertise and collaborate on solutions, we can improve efficiency and ensure everyone is aware of the priority actions they can take to address their areas of responsibility.
- If we do not invest in improving our data, monitoring, and accountability systems, we are limiting our understanding of the world around us, our impact and our potential in addressing key issues of our time.
- Failing to include vulnerable populations, and identify programs that increase their participation and representation in society, will ensure marginalizing policies, attitudes and behaviours continue to oppress and facilitate inequalities.

# **REFLECTION AND ACTION QUESTIONS**

- How do you feel about the issue now that you know more about it?
- 2 How might this issue have been prevented? What could have been done differently?
- How has this problem changed over time? Where do you see it going in the future?
- **4** What questions do you still have?

To successfully implement the 2030 Agenda for Sustainable Development, we must swiftly move from commitment to action. To do that, we need strong, inclusive and integrated partnerships at all levels.



Ban Ki-moon

Former Secretary-General of the UN

# **RESOURCES**

PARTNERSHIPS For the goals

### How to take action

- **Start in your own circle.** Join or create a group in your local community that seeks to mobilize action on the implementation of the SDGs. Find out what organizations and stakeholders would benefit from getting involved and reach out to them.
- Speak up and speak out. Encourage your governments to partner with businesses for the implementation of the SDGs. Read up about how companies can advance each of the SDGs <u>here</u> and write letters, make social media posts, and tweet about it. Start making the links between private business and public organizations.
- Join the community and tell someone about it. Take action with the <u>Sustainable Development Goals App</u> and learn what goes into the Global Goals, how you can help make issues a priority and how to make sustainable choices with your community. Register your own actions and initiatives on the <u>SDGs Partnerships Platform</u> to inform, educate, network and be inspired!
- **Stay informed**. Follow the news or connect on social media, and keep track of how your country is doing to meet their commitments to the Sustainable Development Goals. Use the handle @globalGoalsUN to stay connected on social media and tell people about your work by using the hashtag #GlobalGoals.
- **Create a swap and shop event in your school.** Demonstrate the importance of universal, open and non-discriminatory trade. Have students donate and swap clothing in order to understand how trade functions and how it can benefit everyone.
- **Connect with schools** in your community to implement a shared resource program or a combined activity day to encourage shared action and partnerships. Join together for a mini conference, a project fair or something else that gets everyone involved and engaged.





### **Educational resources**

- The World's Largest Lesson page for Goal 17 has downloadable comics, posters, and lesson plans <u>here</u>. Multiple lesson plans and resources can be found on introducing the goals, incorporating them into daily life, and working together.
   <u>Working Together to Achieve the Global Goals</u> (ages 8 to 11, 45 minutes) allows students to explore what every human citizens needs to survive. This lesson emphasizes the importance of our global community through an interactive puzzle, leading students through the differences between working independently and within partnerships.
- Bridges That Unite: An Exploration of International Development (Grades 5 to 8) is a teaching resource that allows students to explore fundamental human needs, perceptions of aid and capacity building. Initiated by Aga Khan Foundation Canada and developed by Classroom Connections, this resource encourages students to communicate with each other and explore connections between the Global North and Global South.
- The <u>Manitoba Council for International Cooperation (MCIC)</u> offers a number of <u>resources and services</u> for both educators, students, and the general public. <u>Classroom workshops</u> are available for all age groups throughout Manitoba. Popular topics include sustainable development and action, climate change, fair trade, gender equality, **food security**, water, refugees and migration and many more. We accommodate educator requests for workshops on global issues, and can provide activities and resources for your classroom. <u>Sign up for our educator newsletter</u> to receive resources right to your inbox.
- Generating Momentum Conferences are student conferences held around Manitoba throughout the school year by MCIC. Conference themes address current global issues and focus on fostering an environment of informed action. Through skill-building sessions and creative workshops, students tackle important issues through collaboration and creative approaches. An educator information session is also offered at the conference, providing information on engaging students as global citizens, teaching the SDGs and offering additional resources, lesson plans and activities.
- MCIC also loans out our <u>Ethical Fashion Show Kit</u>, which contains clothing items that are made ethically and are fair trade. The kit also includes a PowerPoint presentation and script for emcees, a how-to manual for planning the show and more information and handouts on fair trade. The kit may be rented out by any school to help raise awareness or as a fundraising event in your school or community.
- Get your students involved in a project or event that takes action for the Sustainable Development Goals. Find inspiration and examples from the <u>UN's take action hub</u> and start challenging your students, school and community to make changes in the name of sustainability.
- Stay up to date and informed on the educational developments of the Sustainable Development Goals, news and resources from the World's Largest Lesson news page. You can view all of the lesson plans here.



# **CASE STUDIES**

### Uganda: A Working Future

Uganda: A Working Future is an initiative developed with Accenture Development Partnerships and Plan International to support youth economic empowerment through collaboration across different sectors. Through collaboration with public and private sector organizations, the program intends to develop an education project on skills to succeed in entrepreneurship, leverage technology and make impacts to scale. With funding from the Swedish International Development Cooperation Agency, the program draws on the program expertise of NGOs and private sector stakeholders to teach critical skills for business and link them to work opportunities. This kind of public-private collaborative effort is necessary to achieve the SDGs by 2030.

### **2** Vulcan Inc.

Vulcan Inc., a philanthropic company founded by investor Paul Allen, is working to develop a detection system that uses data science, computer visualization, and machine learning to turn large amounts of data into useful, informative, and actionable information for governments and enforcement agencies. Vulcan Inc. has made an impact with their technology by creating software and data visualizations that have gone into efforts such as helping fight animal poaching in large and remote areas in Africa and providing real-time data to necessary enforcement agencies to prevent illegal fishing activities, helping protect our life on land and life below water.

### The Northern Mozambique Channel initiative

The Northern Mozambique Channel region is one of the world's most outstanding marine **biodiversity** areas in the Indian Ocean. The area contains a wealth of natural and economic assets, and is a key area for development in East Africa. However, strain on **natural resources** and the ecosystems is impacting the balance of human development and environmental protection needed for sustainable development. <u>The Northern Mozambique Channel initiative</u> is seeking to partner countries, civil society and the private sector to value, protect and enhance the natural assets that are central to their economies. The partnership will assist local stakeholders to develop solutions that benefit the marine environment and people's quality of life.

### United Nations

Through the <u>United Nations'</u> unique form and position, branches of the organization focus on taking action on the issues confronting humanity in the 21st century. Among these issues, the Sustainable Development Goals incorporate action, responsibility and forward movement. A key component of achieving all 17 Sustainable Development Goals is the cooperation and effort of all global citizens. Ensuring that communities, organizations, businesses, and citizens may work together despite differences in location, language and culture embodies Goal 17.



### The International Institute for Sustainable Development's (IISD)

The International Institute for Sustainable Development's (IISD) mission is to promote human development and environmental sustainability through innovative research, communication and partnerships. The IISD has offices in Canada, Switzerland and the United States, and operates in over 70 countries. Since 1990, the IISD has provided practical solutions to the challenge of integrating environmental and social priorities with economic development. The institution is organized around six programs (economic law and policy, energy, water, resilience, knowledge and reporting services) and strives to connect issues around the world through research, engagement, businesses and policy-makers. Through the use of shared forums, multilingual research, and high impact initiatives, IISD's partnerships continue to strive for a more sustainable future for every global citizen.

### Manitoba Council for International Cooperation



The Manitoba Council for International Cooperation (MCIC) is proud to represent approximately 40 registered charitable organizations that channel our province's assistance and community resources beyond our borders. Here at home, MCIC works in Manitoban communities to build interest, understanding and engagement on sustainable development and global issues. With the adoption of the United Nations' Sustainable Development Goals in September 2015, it is even more important to work together to meet global needs. The 17 Global Goals are interconnected and universal, providing a guide for local, provincial, national and global efforts to realize sustainable development. Achieving the goals requires collaboration from a range of stakeholders: government, business, civil society and citizens must all work together to make this a reality.

### Aga Khan Foundation Canada

Take a look at the Aga Khan Foundation Canada educator's guide, <u>Inspiring Global Citizens</u>, which has many great activities, lesson plans and online resources for your classroom, including a French version of the guide. Their website also has links to other classroom resources, including a reading list for global citizens.

### **B** Alberta Council for Global Cooperation

The Alberta Council for Global Cooperation offers the *Development in a Box* kit for both <u>grades 1–6</u> and <u>grades 7–12</u>. Here you'll find lesson plans and materials on global issues like peace, poverty and taking action to make the world a better place.

#### **17** PARTNERSHIPS FOR THE GOALS



### **End notes**

<sup>1</sup>http://www.oecd.org/dac/stats/ODA-2015-detailed-summary.pdf

<sup>2</sup>https://sustainabledevelopment.un.org/sdg17

<sup>3</sup>https://sustainabledevelopment.un.org/sdg17

<sup>4</sup>https://sustainabledevelopment.un.org/sdg17

<sup>5</sup>https://sustainabledevelopment.un.org/sdg17

<sup>6</sup>http://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-17-partnerships-for-the-goals

<sup>7</sup>http://www.un.org/ga/search/view\_doc.asp?symbol=E/CN.6/2015/3

<sup>8</sup><u>http://www.data4sdgs.org/</u>



G.1	A-B	G.5	F-G	G.9	N-P	G.13	W-X
G.2	С	G.6	G-I	G.10	P-S		
G.3	C-D	G.7	I-L	G.11	S		
G.4	E-F	G.8	М	G.12	S-U		

### A

Absolute poverty	A set standard of measuring poverty internationally, in relation to a person's ability to meet their basic human needs.
Acidification	A process of decreased pH levels in the ocean caused by an increased absorption of carbon dioxide.
Agro-production	The large-scale production, processing, and packaging of food using modern equipment and methods.
Anthropogenic	A process that is human-created.

B

Basic services	Critical services to improve the lives of people, including electricity, energy, water and sanitation, and refuse and waste removal.
Biochar	Charcoal produced from plant matter and stored in the soil as a means of removing carbon dioxide from the atmosphere.
Biodiversity	The variety of life in the world or in a particular habitat or ecosystem.
Biofuels	A fuel derived directly from living matter.
Biogas	The mixture of gases produced by breaking down organic matter such as agricultural waste, manure, sewage or food waste; the gases produced can be used for fuel.
Biomass	The total mass of organisms in a given area or volume.



### C

Capacity building	Programs that prioritize the ability for individuals and organizations to obtain, improve and retain skills and knowledge to support themselves.
Carbon footprint	The amount of carbon dioxide or other carbon compounds emitted into the atmosphere by the activities of an individual, company, country, etc.
Carbon intensity	The amount of carbon (in terms of weight) emitted per unit of energy consumed. A common measure of carbon intensity is the weight of carbon per British thermal unit (BTU).
Carbon neutral	Having achieved a state in which the net amount of carbon dioxide or other carbon compounds emitted into the atmosphere is reduced to zero because it is balanced by actions to reduce or offset these emissions.
Caregivers	People who are responsible for a child's care and well-being. Can be a parent, relative or community member.
Child credits	A tax credit given to taxpayers for each dependent child in their care.
Child welfare services	A range of services designed to ensure that children are safe and that families have the necessary support to care for their children successfully.
Child-headed households	A family in which a minor (child or adolescent) has become the head of the household.
Chronic hunger	The inability to consume enough food to sufficiently meet dietary energy requirements over a long period of time.
Civic engagement	Individual and collective actions designed to identify and address issues of public concern.
Climate change	A change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
CO2 emissions	The release of carbon dioxide, a colourless, ordourless and non-poisonous gas formed by combustion of carbon and in the respiration of living organisms.



Colonialism	The policy or practice of acquiring full or partial political control over another country, occupying it with settlers and exploiting it economically.
Cooperative	A farm, business, or other organization that is owned and run jointly by its members, who share the profits or benefits.
Coral bleaching	A process of expelling the algae that lives inside the tissue of coral, usually caused by acidification and a rise in ocean temperatures. It is a sign of poor coral health.
Corruption	Dishonest or fraudulent conduct by those in power, typically involving bribery.
Cycle of poverty/ poverty cycle	A set of factors or events that make it difficult for an individual or group of people to get out of poverty without intervention.

D

Decent work	Employment that respects the fundamental rights of the human person as well as the rights of workers in terms of conditions of work safety, physical and mental integrity and earning a wage.
Decolonization	The act of freeing a country from colonization and resuming self-government.
Deforestation	The removal of a forest or stand of trees where the land is converted to non-forest use.
Desalination	The process of removing dissolved salts from water, thus producing fresh water from seawater or brackish water (also called "desalinization" and "desalting").
Desertification	The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.
Discrimination	The treatment or consideration of, or making a distinction in favor of or against, a person or thing based on the group, class, or category to which that person or thing belongs rather than on individual merit.
Disproportionate	When something happens more or less frequently than in the general population.
Double burden/dual burden	The workload of people (often women) who work to earn money, but who are also responsible for significant amounts of unpaid domestic labor.



E

F

Eco-efficiency	A philosophy of generating more value through technology and process changes while reducing resource use and environmental impact throughout the product or service's life.
Ecological footprint	The impact of a person or community on the environment, expressed as the amount of biologically productive land and sea area required to sustain their use on natural resources.
Employment insurance	A federal insurance program that provides benefits to eligible unemployed people
Environmental conservation	The practice of protecting an ecosystem on individual or governmental levels, usually through policies, economic incentives, voluntary practices and public campaigns.
Environmental degradation	The deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems; habitat destruction; the extinction of wildlife; and pollution.
Epidemics	Rapid and widespread infectious diseases or conditions, such as tuberculosis and obesity.
Extinction	The end of an organism or group of organisms, typically a species.
Extreme climatic events	Unexpected, unusual or unpredictably severe or unseasonal weather, such as droughts, storms, floods and landslides, making it difficult to provide our basic necessities.
Fair trade	The practice of trade and trading partnerships that ensures producers receive a

Family planning	The practice of controlling the number of children in a family and the intervals between their births, particularly by means of artificial contraception, voluntary sterilization and awareness.
Famine	A widespread scarcity of food, often caused by issues including crop failure,

A widespread scarcity of food, often caused by issues including crop failure, population imbalance, or government policies. This phenomenon is usually accompanied or followed by regional malnutrition, starvation, vulnerability to epidemics and increased mortality.

fair price while pursuing improved social and environmental standards.



Female genital mutilation (FGM)	A cultural procedure where the female genitals are deliberately cut, injured or changed, but for no medical reason.
Feminism	A range of political, ideological and social movements that seek to define and advance the rights of women, to achieve equality of the sexes.
Food security	The ability for individuals, communities and nations to supply enough food to sustain a growing population and future generations through sufficient demand and access.
Formal education	Learning delivered in an institutional setting, such as in a school with trained teachers.
Fossil fuels	A non-renewable fuel such as coal or gas, formed in the geological past from the remains of living organisms.

Gender	The socially constructed and personally identified classification as male, female or non-conforming.
Gender discrimination	Prejudice or discrimination based on a person's sex or gender. It can take on many forms including gender stereotypes, sexist language, institutional sexism, glass ceiling effect, objectification, harassment and violence among others.
Gender equality	Equality between women and men: equal ease of access to resources and opportunities regardless of gender, including economic participation and decision-making; valuing different behaviors, aspirations and needs equally, regardless of gender.
Gender neutrality	The idea that policies, language, and other social institutions should avoid distinguishing roles according to people's sex or gender, in order to avoid discrimination arising from the impression that there are social roles for which one gender is more suited than another.
Genocide	The deliberate and systematic killing of a large group of people, especially those of a particular ethnic group or nation.
Gini coefficient	A measurement of inequality in and across particular countries represented by values, with a score of 0 being perfect equality and 1 being perfect inequality.
Glass ceiling	An unofficially acknowledged barrier to advancement in a profession, especially affecting women and members of minority groups.



Global citizenship education	The process of learning about the rights, responsibilities and duties that come with being a citizen of a particular nation or place. The concept suggests that one's identity transcends geography or political borders.
Global South	Countries that experience large inequalities in living standards, life expectancy and access to resources. Commonly referred to as the "Third World" or "developing countries," these are countries in Africa, Central and Latin America and Asia. It is understood as the separation of socio-economic inequalities rather than purely geographical.
Greenhouse gases (GHG)	Gases emitted into our atmosphere from natural and man-made sources, like CO2, methane, nitrous oxide and ozone.
Gross domestic product (GDP)	A way to gauge the health of a country's economy, represented in the total dollar value of all goods and services produced over a specific time period.
Gross national income (GNI)	A measurement of a country's income. It includes all the income earned by a country's residents and businesses (GDP), plus those earned abroad or from foreign sources. GDP measures production while GNI measures income.

Health literacy	The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.
Human rights	Rights that are interrelated, interdependent and inherent to all human beings.
Hydrological system	An interrelated processes responsible for management of water on our planet, including precipitation, evaporation, transpiration, infiltration and groundwater flow.
Hypoxic zones	Areas of the ocean with insufficient amounts of oxygen, light and nutrients to support other species, caused by an increase in algae.
Inalionable	Something that is unable to be taken away such as human rights

Inalienable	Something that is unable to be taken away, such as human rights.
Inclusive	Not excluding any section of society or any party involved in something.



Inclusive cities	Urban centres seeking to improve opportunities and living conditions for all through spatial, social and economic inclusion.
Indigeneity	The fact of originating or occurring naturally in a particular place.
Informal education	Learning delivered outside of an institutionalized setting, focusing on cultivating knowledge through experience and conversation.
Information and communication technologies (ICT)	A diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. It's a broad term used to refer to everything from telecommunications to data handling to media management.
Institutional sexism	The result of an organization made up of persons who share the same attitudes favouring one sex over another in a given situation.
Integrated water resource management	A process that promotes the coordinated development and management of water, land and related resources, in order to maximize resulting economic and social welfare in an equitable manner, without compromising the sustainability of vital ecosystems.
Invasive species	Plants, animals and fungi that are not native to a particular area, with a tendency to spread and damage the environment, economy and health of the local ecosystem.

Labour unions	Organizations of workers coming together to achieve common goals such as improving safety standards, achieving fair pay and gender equality.
Land degradation	A process caused by multiple forces, including extreme weather conditions (particularly drought) and human activities that pollute or degrade the quality of soils and land utility, negatively affecting food production, livelihoods and the production and provision of other ecosystem goods and services.
Legal system	The processes of dealing with offences and the institutions (courts, police, prisons, and lawyers) that enforce and enact these laws.



### M

Malnutrition	Insufficient levels of specific nutrients needed to grow and be healthy, increasing risk of death, diet-related diseases and chronic health conditions.
Marginalization	The social, economic and political discrimination or exclusion of certain people, impacting their ability to benefit and participate in certain spaces.
Marine conservation	A process of protecting and preserving our ocean's ecosystems by limiting human- caused damage, restoring damaged ecosystems and establishing protective policies and projects to ensure humanity understands and respects the fine balance.
Marine ecosystems	Aquatic ecosystems, including salt marshes, intertidal zones, estuaries, lagoons, mangroves, coral reefs, the deep sea and the sea floor.
Marine protected areas (MPAs)	Marine ecosystems recognized and protected by governments to restore and replenish important biodiversity, and social, cultural and economic resources.
Marine resources	Resources acquired from the sea, such as fish, gas, minerals, renewable energy and tourism.
Market economy	A capitalistic economic system in which there is free competition and prices are determined by the interaction of supply and demand.
Microenterprise	A business operating on a very small scale, often started as part of a micro-finance program to help families in poverty establish businesses.
Microcredit/micro-loan	Small loans provided to impoverished borrowers who lack collateral, steady income and verifiable credit history.
Millennium Development Goals (MDGs)	Eight international development goals established following the Millennium Summit of the United Nations in 2000, including measurable targets and clear deadlines for improving the lives of the world's poorest people by 2015.
Minimum wage laws	The body of law which prohibits employers from hiring employees or workers for less than a given hourly, daily or monthly minimum wage.
Misogyny	Social, economic, cultural and political practices, attitudes and behaviours that oppress women beneath men.
Mobile infrastructure	The cellular networks and technological infrastructure needed to support cellphone usage in the Global South.



### N

Π

P

National debt	The total amount of money that a country's government has borrowed, by various means.
Natural ecosystems	A naturally occurring community of living organisms together with the nonliving components of their environment (things like air, water and mineral soil), interacting as a system.
Natural resources	Materials or substances such as minerals, forests, water, and fertile land that occur in nature and can be used for economic gain.
Neonatal mortality	The likelihood of an infant dying in the first 28 days of life.
Non-governmental organization (NGO)	Any non-profit, voluntary citizens' group that is organized on a local, national or international level.
Non-renewable resource	A resource that cannot be readily replaced by natural means on an equal level to its consumption.
Nutrition	The process by which organisms take in and utilize food material.
Official development assistance (ODA)	The term used to measure aid. It represents an indicator of international aid flow.
Old age security	A pension plan run by the Canadian government that is available to most Canadians aged 65 or older.
Overconsumption	The action or fact of consuming something to excess.
Permaculture	The development of agricultural ecosystems intended to be sustainable and self- sufficient.
Political instability	The propensity of a government collapse either because of conflicts or rampant competition between various political parties.
Poverty	The state or condition of having little or no money, goods, or means of support; the state of being extremely poor. (See also: <b>absolute poverty</b> and <b>relative poverty</b> )



Poverty cycle	A set of factors or events which makes it difficult for an individual or group of people to get out of poverty without intervention.
Poverty line	The minimum daily income that will allow you to meet your basic needs. In 2018, the minimum daily income is \$1.90 USD.
Poverty rate	A measurement of the number of people living below a certain daily income level.
Poverty reduction	Strategies, measures and programs intended to enable people in poverty to create wealth for themselves and end their cycle of poverty.

Ratification	The action of signing or giving formal consent to a treaty, contract, or agreement, making it officially valid. A formal validation of a proposed law, agreement or action plan.
Relative poverty	A measurement of income inequalities of a particular social context.
Renewable resource	A resource that can be used repeatedly because it naturally replenished, like water, oxygen, solar energy, and biomass fuels.

Salinization	The process by which water-soluble salts accumulate in the soil; it may occur naturally or because of conditions resulting from management practices and can cause concern over resources as excess salts hinder the growth of crops by limiting their ability to take up water.
Sanitation	The hygienic means of promoting health through prevention of human contact with the hazards of wastes, in particular via the treatment and proper disposal of human excrement, often mixed into wastewater.
Segregation	The institutional separation of an ethnic, racial, religious, or other minority group from the dominant majority.
Slums	Densely populated and informal communities, often with substandard or non-existent sanitation services, electricity, security and other basic services.
Social determinants of health	Conditions in which people are born, grow, work, live and age, and the wider set of forces and systems that shape the conditions of their health.



Social inequalities	The existence of unequal opportunities and rewards for different social positions or statuses based on characteristics of identity including, but not limited to, race, gender, sexual orientation, religion, ability, income, and age.
Social justice	Actions taken to ensure the fair and just relationship between the individual and society.
Soil degradation	A decline in soil quality caused by improper use, usually for agricultural, pastoral, industrial or urban purposes.
Solidarity	Mutual support among individuals and communities with a common interest.
South-South cooperation	A development perspective that encouraging shared resources, technology and knowledge between developing countries in the Global South.
Stakeholders	Organizations, communities, individuals and all those who have an interest in the outcome or process of a particular project.
Stigma	Extreme disapproval of (or discontent with) a person or group on socially characteristic grounds that are perceived, and serve to distinguish them, from other members of a society. Stigma may then be affixed to such a person, by the greater society, who differs from their cultural norms.
Stigma reduction	Efforts to educate, inform and bring awareness to negative attitudes and behaviours around people living with certain conditions, illnesses or holding certain identities.
Stunting	Inadequate heights for children based on their age from the effects of under-nutrition and infection.
Sub-watershed	A land area or topographic region that drains into a particular watercourse or body of water. Large watersheds may contain hundreds of thousands of small sub-watersheds that drain into the river or other body of water.
Supply chain	The sequence of processes and actors involved in the production and distribution of a particular good.
Sustainable agriculture	The production of food, plant and animal products using farming products that protect the environment, ensure healthy communities and animal welfare. Examples include permaculture, crop rotation, natural pest predators and soil enrichment.
Sustainable cities	Urban developments that prioritize the energy efficiency and reduced environmental impact through managing energy, water and food inputs along with outputs of heat, air pollution and water pollution.



Sustainable consumption and production	The use of services and products which respond to our basic needs and bring better quality of life while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants, so as to not jeopardize the needs of future generations.
Sustainable development	The promotion and practice of sustainable living through sustainable infrastructure. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
Sustainable Development Goals (SDGs)	A collection of 17 Global Goals set by the United Nations to replace the Millennium Development Goals (MDGs) which ended in 2015. Unlike the MDGs, the SDG framework does not distinguish between "developed" and "developing" nations. Instead, the goals apply to all countries.
Systems approach	Examining the interconnected relationships of root causes to an issue such as poverty rather than individual approaches to the effects of an issue.

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Tied aid	The contribution of resources towards another country's economic development using products and equipment sourced from donor countries.
Trade unions	An organized association of workers, often in a trade or profession, formed to protect and further their rights and interests.
Trafficking	The illegal trading of humans, usually women and children.
Transgender	Noting or relating to a person whose gender identity does not correspond to that person's biological sex assigned at birth.
Transpiration	A natural processes of capturing carbon dioxide and releasing moisture and oxygen carried through plants from roots to small pores on the underside of leaves.
Treaties	Agreements recognized under international law that hold those that sign them accountable to the agreement.

U

Universal basic income	A form of social security or welfare regime, in which all citizens (or permanent residents) of a country receive a regular, livable and unconditional sum of money, from the government.
Urbanization	The process of making an area more urban.



W

Water pollution	The contamination of bodies of water through pollutants directly and indirectly introduced to aquatic ecosystems.
Water scarcity	The lack of sufficient available water resources to meet water usage needs within a region.
Water stress	When demand for water exceeds the available amount during a certain period.
Welfare	Financial support given to people in need, such as old age security, employment insurance or child credits.

Xenophobia An intense or irrational dislike or fear of people from other countries.



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