

2 ZERO HUNGER



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 worldwide has declined from 15 per cent in 2002 to 11 per cent in 2016.¹ 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 through 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

1 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.²

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 impact 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.³ 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 1990.⁴

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.⁵ About 45 per cent of all child deaths are linked to malnutrition.⁶

- **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.⁷



3 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 2014.⁸

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.⁹

- **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.¹⁰ 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**.¹¹ 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.¹²

- **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.¹³

REFLECTION AND ACTION QUESTIONS

- 1 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?

“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

- **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 [here](#). 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 [Good Soil](#) 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 [here](#).
- **Try out the 30 Hour Famine Challenge from World Vision.** The [30 Hour Famine](#) 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.



Educational Resources

- The World's Largest Lesson page for Goal 2 has downloadable comics, posters and lesson plans [here](#). You can also download a lesson for 11-14 year olds called [The World is Not Equal. Is That Fair?](#) 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 [here](#). Get a sense for what Canada is doing to find practical solutions to the problems plaguing our food system with [this TED Talk](#) 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 [this video](#), a very animated food security expert Dr. Evan Fraser guides you through a crash course in climate change and food security.
- [Caterpillars & Cornstalks](#) (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 [A Divided World](#) 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 [Breaking the Cycle of Hunger Game](#), which helps students explore the causes of hunger, how it hinders development and what can break the cycle of hunger.
- [Circular Economy & Modern Agriculture](#) (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 [Canadian Foodgrains Bank](#), or search their [activities page](#) by topic and grade level.



CASE STUDIES

1 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.¹⁴

3 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.

6 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

¹ <https://sustainabledevelopment.un.org/sdg2>

² <https://www.fews.net/>

³ <http://www.fao.org/resources/infographics/infographics-details/en/c/238873/>

⁴ <http://www.fao.org/hunger/key-messages/en/>

⁵ <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-11-261>

⁶ <http://www.who.int/mediacentre/factsheets/fs178/en/>

⁷ <https://www.youtube.com/watch?v=bbci7wMuQWM>

⁸ <https://sustainabledevelopment.un.org/sdg2>

⁹ <https://unstats.un.org/sdgs/files/report/2016/secretary-general-sdg-report-2016--EN.pdf>

¹⁰ <http://www.fao.org/docrep/x0171e/x0171e02.htm>

¹¹ <https://foodsecurecanada.org/resources-news/news-media/national-food-policy-prime>

¹² <http://www.bbc.com/news/business-30504720>

¹³ http://www.actionaid.org/sites/files/actionaid/hungerfree_scorecards_2010.pdf

¹⁴ <https://www.youtube.com/watch?v=SlznRH0lrdQ>