



SPARK questions about **food** DEMOCRACY

PROJECT **Agriculture**

## How should the **global food supply** be protected?

Globalization is changing the food system.

### the world's population is growing

The world's population is predicted to grow to 9.7 billion by 2050. This is a lot of people to feed, especially with the serious hunger issues the world faces today.

Some believe that the solution involves producing more food. However, others think that we already produce enough food – it's a matter of figuring out how to distribute the food while keeping it fresh and finding ways to reduce food waste.

### world hunger is increasing

For the third year in a row, there has been a rise in world hunger. The number of people who face food deprivation has increased to nearly 821 million in 2017, from around 804 million in 2016.

The rise in world hunger is affected by many factors. In areas of conflict and instability, access to food is threatened. Extreme climate events affect the food supply. The lack of adequate food supplies in areas of the world that have high levels of poverty also worsen food security.

Food and Agriculture Organization of the United Nations (2018). The State of Food Security and Nutrition in the World: Online. [www.fao.org/state-of-food-security-nutrition/en/](http://www.fao.org/state-of-food-security-nutrition/en/)



I will use information and **INVESTIGATE FURTHER** questions to help me identify a project question I want to investigate for a **food DEMOCRACY** project.

I will identify what I need to know more about.



### INVESTIGATE FURTHER

Who should be responsible for dealing with global hunger, food supply and waste? Governments? Industries? Individuals?



### The future of food

The debate over how to address the global food challenge has become polarized, pitting conventional agriculture and global commerce against local food systems and organic farms. The arguments can be fierce, and like our politics, we seem to be getting more divided rather than finding common ground. Those who favor conventional agriculture talk about how modern mechanization, irrigation, fertilizers, and improved genetics can increase yields to help meet demand. And they're right.

Meanwhile, proponents of local and organic farms counter that the world's small farmers could increase yields plenty – and help themselves out of poverty – by adopting techniques that improve fertility without synthetic fertilizers and pesticides. They're right too.

National Geographic Online: The Future of Food. [www.nationalgeographic.com/foodfeatures/feeding-9-billion/](http://www.nationalgeographic.com/foodfeatures/feeding-9-billion/)

### food sovereignty is a global movement

**Food sovereignty** is the right that people have to healthy and adequate food that is produced with sustainable methods. It emphasizes the right to define and control local food and agricultural systems. Food sovereignty encourages both farmers and consumers to shape the food supply through individual economic decisions. This idea is becoming increasingly important in developing countries.

In Canada, food sovereignty can be interpreted to mean connecting the right to food with the right to produce food that can be consumed locally. This means looking critically at different factors that include:

- ◆ The way land is used
- ◆ The future of family farming
- ◆ Supporting local farmers
- ◆ The price of agricultural land
- ◆ Different food production and distribution practices



#### INVESTIGATE FURTHER

Is globalization the solution or the challenge for the global food supply?



#### INVESTIGATE FURTHER

How would you address the food challenge? With more technology, more small farming, or a combination of both?"



## local family farms are important globally

Farming families are central to reducing hunger. There are about 500 million small family farms in the world, most of them no bigger than three soccer fields. However, they account for 50 percent of global agricultural production and feed 70 percent of the world's population.

The Canadian government supports small farming families in developing countries. These small family farms are central to Canada's efforts to achieve global food security.

Of course, ensuring food security is complicated. In 2014, the United Nations Food and Agriculture Organization declared the *International Year of Family Farming*. Their goal was to raise awareness of the importance of family farms and highlight the contributions farmers make to food security, economic growth and the protection of the environment around the world.

It is estimated that about 98 percent of farms in Canada are family owned. For example, in Alberta, all dairy farms are family owned. This is also true for Alberta egg, hatching egg, turkey and chicken farmers.

Some information from Charron, D. Wright, J. (2014). Feeding nine billion by 2050? Canada can help. International Development Research Centre: Online: [www.idrc.ca/en/perspectives/feeding-nine-billion-2050-canada-can-help](http://www.idrc.ca/en/perspectives/feeding-nine-billion-2050-canada-can-help)

## the global food system can focus on sustainability

International studies on the right to food, trade and development and conducted by the United Nations and the World Bank over the last ten years, and involving scientists from around the world, have concluded that the global agriculture system must be transformed to avoid increasing environmental and social problems. It encouraged more emphasis to be placed on sustainable and socially just food systems.

Alberta farmers are already using sustainable agricultural methods. For example, some Alberta farmers have participated in a Life Cycle Assessment (LCA). A **Life Cycle Assessment** measures and evaluates the environmental impact of a product – from its creation to its disposal. Many are doing this in the context of other sustainability initiatives.



### INVESTIGATE FURTHER

What more can be done to ensure food security in a globalizing world? What should Canada's and Alberta's role be?



### INVESTIGATE FURTHER

How can the right to food be connected to local and family farms?

The Egg Farmers of Alberta's environmental program helps egg farmers better identify their impacts on the environment. It also helps ensure that resources are managed in a sustainable manner and that eggs are produced in an environmentally responsible manner.

Their Producer Environmental Egg Program (PEEP) is focused on key impact areas such as energy use, water consumption and manure management, which helps egg farmers identify and address environmental risks and opportunities to improve their carbon footprint.

Dairy producers in Alberta also focus on sustainability as an important part of their ProAction program to show how farmers responsibly produce milk. They have identified the following environmental challenges:

- ◆ Soil degradation
- ◆ Manure management
- ◆ Water quality
- ◆ Greenhouse gases

Dairy producers complete an Environmental Farm Plan to identify environmental risks and prioritize the adoption of practices that will help improve impacts they may have on the environment.



## INVESTIGATE FURTHER

How does global food security affect the local and global food supply?

