

WATER PATHWAY

WATER AND FOOD SYSTEMS



**Four Stories About
Food Sovereignty**

INTRODUCTION

Water is an essential part of life for all living creatures and clean water is essential to healthy living. Both freshwater and saltwater are vital resources for ensuring food security. Did you know that 70% of all freshwater worldwide is used for agriculture?

Access to water—particularly clean water—is a challenge for many communities around the world. The distribution of water is uneven. In North America, most people do not need to worry about where their water comes from. However, many First Nations communities, African American communities, and others have lived for a long time with contaminated water supplies. Access to water is impacted by the availability of water sources, government regulation, industrialization, climate, and more.

Consider the following **inquiry questions** in relation to water and food:

1. Where does your water come from?
2. How much water do we 'eat' every day?
3. Have you ever worried about having enough water, or having clean water?
4. Who is, and who should be, responsible for ensuring clean water is available to communities?
5. Why is water important for culture?
6. Can you think of any possible solutions to the lack of water for agriculture and lack of clean water for drinking?
7. Can you think of farming practices that would help reduce agriculture's demand for water?
8. How is food sovereignty related to saltwater? How does pollution and industrialization endanger this resource for food sovereignty?

Student Activities: The challenges

Below are reflections from project participants that highlight the challenges surrounding food security and sovereignty in relation to water. These serve as discussion points and potential research project options for students. Choose two or three that might be of interest for students to discuss or consider posting all of them and having students choose. Each point could be the focus of an individual or team research project.

Slide decks, infographics, topic videos, blogs, podcasts and other resources on this and related topics can be found on our website.

Challenges that impact South Africa

Predicted temperature increases in South Africa will lead to the increase of uneven water distribution. According to Four Stories about Food Sovereignty:

"Due to the multiple climate zones in South Africa, there is an uneven distribution and access to surface water ... The projections for the rise in South Africa's average temperature will have a severe impact on precipitation, the primary source of surface water. By the year 2020, annual precipitation is expected to have declined by 5.4%, followed by another decrease of 6.3% by 2050, and 9.5% in 2080 (Tibesigwa et al., 2017). This decrease will destabilize the agricultural industry in South Africa, primarily smallholder farmers (Blignaut et al., 2009). Yields from rain-fed agriculture are expected to reduce by 50% by the year 2020 (Wlokas, 2017). The ability for smallholder farms to adapt to these scenarios are hindered by the policies adopted by the South African government that relate to land and water."

Challenges that impact South Africa (cont'd)

- Participants also noted the challenge with government regulations, including, for example, the National Water Act (1998) which abolished the distinctions between private and public water and the resource was placed under administrative authority of the government. The phrase 'water rights' was replaced with the phrase 'entitlement to water use'. Entitlements include Existing Lawful Uses (ELU's), household/domestic, general authorizations, and licenses. ELU's maintain land owners' property rights that grant the unregulated water use for their farming operations. Paid licenses are now the most common form of access to water for Black smallholder farmers.

Challenges that impact Jordan

- Fatima and Aysheh: “Rapid increase of industrialization and forced immigration put a large increase on the demand of water. Lack of water also comes from a lack of water sources in Jordan.”
- Fatima: “To improve the yield production, we have moved away from using water and acknowledge that water is an issue in Jordan. We have moved into hydroponic culture, using different kinds of soil, especially using ground volcanic pumice, to allow the plants to grow with supplements that we are missing in the traditional soil. This method allows us to control the amount of water used. There is a noticeable increase in essential oil smell.”

Challenges that impact Indigenous Colombia

The challenges in Colombia include having to cultivate only in seasons when there is rain, the Amazon forest fires leading to a reduction of available water, immigration and a shortage of clean water. Together, these are resulting in the disappearance of traditional food and drink.

- Miguel: "Politicians are not giving access to the water, not investing in public infrastructure to give the public access to the water. Mining is also an issue as they use up the little water the country has available."
- Jakeline: "As the Amazon burns, we do not have water. Water is the root of our culture."
- Miguel: "In our territory in northern Colombia, there are extractive processes of gas, petroleum, and coal, and coal is especially the one that is interfering with our already depleting sources of water. In order to give a number to this, we want to say that in the last 10 years, we have mourned the loss and deaths of more than 5000 children from lack of water and malnutrition."

Challenges that impact Indigenous Colombia (cont'd)

- Miguel: “Just one of the companies alone has resulted in the disappearance of 17 sources of water in our territory, ranging from rivers to streams. We also risk losing the remaining streams and rivers to industry.”
- Miguel: “In the province of northern Colombia there is a lot of immigration from Venezuela which puts added pressure on our water sources. There aren't many sources of water in the semi-desert of northern Colombia.”

Challenges that impact Indigenous Colombia (cont'd)

- Miguel: "Water is important for making food, for keeping animals. The overall point is that if you have food, you can maintain a culture. It is said that you can eat once a day, but if you are thirsty, you will die. So water is very important."

Mphephu: Can I ask, is that water in Colombia clean?

Claudia: No, it's from water deposits from the ground from the rain.

Mphephu: So how do you purify it?

Miguel: Sometimes we assume that if it's boiled it will be fine. But in general, we will just drink the water, and there are many diseases, which mainly affect the children. The two main diseases are diarrhea and acute respiratory diseases."

Challenges that impact Indigenous Canada - Vancouver Island

- Chief Gordon Planes of T'Sou-ke Nation: "I was taught to respect the environment when I was a little boy. So many small words mean a lot in our language, and one of those is 'Spring Salmon Place'. My grandmother said it was a place where the spring salmon return to mother earth. Today it's known as the Sooke Potholes. Our territories were made from water. The heart of our territory is the T'Sou-ke Lake. That lake feeds the whole of Victoria. A river that flows out of it, we call it the Big River, and next to it is the Emmanuel River, after a Spaniard. I'm going to talk about a food that's very important to our territory, our clams, cockles, our mussels, our oysters. Those are being compromised by septic fields."
- Chief Gordon Planes: "We have a crisis with Olympic oysters on our territory. We have 4 million oysters in our basin, and we're harvesting that now (September 2019). But we're going to double that need in the future. Oysters are important for three reasons: they create jobs, they clean the water, and the money made from them can fund efforts to protect the oysters. Food sovereignty is very important and we have to adapt. I think if we did that, it would be a benefit for everyone living in our territory."