

# UNIT 1

## GLOBAL SETTLEMENT: PATTERNS AND SUSTAINABILITY

### PATTERNS AND TRENDS

What patterns do you see  
in this image?

### INTERRELATIONSHIPS

What is the connection between  
population and the brightness of  
the lights?

### SPATIAL SIGNIFICANCE

What do you notice about the  
location of human settlements?

### GEOGRAPHIC PERSPECTIVE

How does the view from  
above Earth influence our  
view of Earth from the  
surface?

## WHY CARE ABOUT CHANGING POPULATIONS AND LIVING SUSTAINABLY?

Across the world, the human population is growing at a rapid pace. Human settlements are expanding, taking over, and changing the physical environment. A settlement is a place where people have established a community. How do our communities impact Earth and its resources?

This satellite image shows where large human settlements are located and also gives an idea of our impact on Earth. We use so much electricity that our lights can be seen from space. The brightest areas show where the most light is being produced.

This unit explores where we live and why we live there. It examines the relationships between the human and physical environments and the impact that each has upon the other. We have a responsibility to minimize our impact on Earth, so that Earth's resources will still be available for our children and grandchildren. We must look for ways to create more sustainable communities now.



# ENVIRONMENTAL MIGRANTS

## PEOPLE ON THE MOVE

People are constantly on the move. Migrants are people who have moved away from their homes. In many parts of the world, the number of environmental migrants is increasing. Environmental migrants are people that have been displaced from their homes because of changing environmental conditions. We do not know exactly how many people have been affected. However, the latest estimate by the International Organization for Migration is that by 2050, up to 1 billion people will be environmental migrants. Most of these people have been displaced because of flooding or food shortages.

Many environmental migrants come from Africa's semi-desert Sahel region. The Sahel region stretches almost 4000 km through 11 countries in North Africa. The countries in the Sahel are among the world's poorest, with badly damaged environments. Addressing the problems affecting their populations continues to be a struggle.



To feed their communities, farmers in the Sahel need a three- to four-month rainy season for a successful harvest. However, since the 1960s, the Sahel region has experienced droughts. Crops fail, and there is little to eat. To make things worse, when the rains do come, severe flooding and erosion occur. People are forced to leave the area, and some communities have been totally abandoned (**Figure U1.1**).

Mass movements of people have an impact on the places they settle in. How can countries take care of large groups of migrants? What will happen to the places migrants leave behind?

Many people move to cities to find a better life, but these cities struggle to support incoming migrants.

The United Nations (UN), an international organization of countries that supports global development and peace, is one group helping people in the Sahel. There are UN programs to replant vegetation, reduce overgrazing by animals, encourage the use of renewable energy sources, and provide fresh water. Having support systems helps more people stay in their homes. Improving these systems is called building resilience.

The African Union, a union of 54 African states, is also developing programs to help people in the Sahel. The goal of these programs is to provide better housing, services, and jobs to people affected by a changing environment.

**FIGURE U1.1** These migrants in Burkina Faso are moving their belongings and animals due to flooding.

### EXPLORE THE ISSUE

1. What problems does **Figure U1.1** suggest these people face?
2. What feelings might migrants have as they travel?



## MAKE YOUR COMMUNITY MORE SUSTAINABLE

Sustainability is the process of living within the limits of Earth's resources. This means choosing ways to use resources so they do not run out. Simply put, sustainability means well-being for all, forever.

Throughout Unit 1, you will conduct an inquiry to identify ways that your community impacts the environment. Your community could be your neighbourhood, school district, village, town, or city. You will conduct research to help you understand local population patterns and how your community impacts the environment. You will also investigate ways that you can help your community become more sustainable. Your goal is to think globally and act locally.

### What to Consider

As you work through the Unit 1 Challenge, you will need to consider the following factors:

- **Population:** How is the population in my community distributed and how is it changing?
- **Environment:** What effect is the environment having on my community?
- **Human impacts:** How is my community affecting the environment?
- **Sustainability:** How can my community live more sustainably?

The ideas and information in each chapter will help you with your challenge. At the end of each chapter in Unit 1, you will have the opportunity to work on your challenge. You will be creating a map of your community as you work through the unit. Think about how to help your community become sustainable by encouraging people to reduce their environmental impact.