



OUR GRASSLANDS

Key Takeaways:

- Grasslands have many names – you may know them as prairies, steppes, meadows, savannahs, or pampas.
- Grasslands are found on every continent except Antarctica, covering over a quarter of the land on our planet. They are found in areas where there is not enough regular rain for forests to grow.
- The deep and fertile soils and absence of tree cover make grasslands perfect for farming. People have used grasslands to grow crops and support herds of grazing domestic animals for thousands of years.
- Grasslands support a great number of animals, such as zebra, antelope, and wildebeest, which need space to roam great distances. In turn, these grazers keep grasslands healthy by stimulating new growth with their trampling feet, keeping trees and shrubs from taking over, and providing food for predators.
- Grasslands help to prevent global warming by absorbing carbon from the atmosphere and storing it underground. The larger the variety of plant species in a grassland, the more efficient the grassland is at absorbing CO₂.
- Today, nearly 40% of Earth's habitable surface is used to make food. Assuming current trends continue, global population is expected to reach more than 9 billion, and the demand for food could increase by 70% by 2050. What we eat and how we produce it will determine the future of our planet's grasslands.
- Each year, between 30% and 40% of the food produced globally for humans is wasted. That's over 1 billion tons — four times the number of calories needed to feed the more than 800 million people who are malnourished.
- The conversion of the grasslands has meant that some wild animals have lost their habitats. They are forced to try to find food or living space closer to people, and this can lead to clashes. Grassland wildlife are also threatened by hunters. In recent years, attacks by poachers on rhinos to steal their horns has brought the species to the edge of extinction.
- If we choose carefully, our planet can give us space to grow enough food for every person and leave enough space for the incredible wildlife that need grasslands to survive. We need to think more carefully about what we eat and also how we can farm more efficiently to use less space.

Each year over two million wildebeest, zebras and gazelles migrate across Northern Tanzania and Kenya in search of green pasture.



GUIDED DISCUSSION PROMPTS

Use these prompts to generate a class or small-group discussion based on the Our Grasslands episode or on videos on ourplanet.com.

1 The grazers that live in grasslands are constantly on the move, following the rain that causes the grass to flourish. These animals can migrate over very long distances in search of their food. The chewing, tromping, and fertilizing of these grazers contribute to keeping the grasslands healthy. These large herds in turn support populations of predators such as cheetahs, lions, and African wild dogs. How would these animals and their migration routes be impacted by climate change, and what would happen to their grassland ecosystem without them?

Example from the episode:

In the Serengeti, herds of over a million wildebeest gather. These grazers attract predators, such as cheetahs. This natural balance is made possible because there is enough space for each species to thrive; the Serengeti has been protected for over 60 years. One of the effects of climate change is irregular rainfall, causing droughts in some areas and floods in others. The lives of these grazing species depend on rainfall; if the rainfall schedule were to change, so would the likelihood of the wildebeests' survival. And without them, the health of the grasslands and the survival of the larger predators are also in trouble.

2 Grasslands are a prime example of how a growing human population leads to an increase in consumption of natural resources and results in larger impacts to the Earth. Discuss this in terms of cause and effect, citing examples from the episode. What kind of changes could be made to minimize these impacts?

Example from the episode:

Grasslands are being plowed up for cropland and converted for urban development. This not only pollutes and destroys vital wildlife habitat, it disrupts the natural benefits that the environment provides and uses a lot of water and energy. However, if we learn to use the land and our food more efficiently, we could find a balance where everybody wins. Advancements in technology will allow new farming methods to do more with less and continue to feed the growing population while leaving space for wildlife. We can help by making an effort to not waste food in our homes, our workplaces, and our schools.



GUIDED DISCUSSION PROMPTS

3 In addition to their genetic characteristics, animals pass down behavioral traits to their offspring as well. These behaviors may have originated years ago, but continue to be passed down through generations in order to help the animals survive. Provide an example from the episode of a species whose members' survival depends on these tricks learned from their parents. As species continue to face challenges like habitat loss and poaching, populations are decreasing. What would happen if these behaviors stopped being passed down?

Example from the episode:

Elephants in Namibia have learned to survive in a harsh desert environment where riverbeds only flow once or twice a year. The matriarch female leads her family to a special place known to have food available even in a drought. She only knows of this place's existence from her mother, and now she is teaching her own family how to get there. Elephants can only survive in this area because of knowledge passed down from previous generations. If the knowledge is lost, the elephants may no longer be able to live in that environment.

4 For many grassland species, the loss of their habitat isn't their only problem. As their habitat gets converted for human uses, animals are forced to wander in search of food and water, many times leading them right into human-occupied areas. This can pose problems as these species encounter humans and compete for space and food. Conflict with humans and habitat loss are two predominant threats leading many grassland species to face extinction. Discuss, in terms of cause and effect, how changes to the environment may result in the extinction of a species. Is it possible to bring animals back from the brink of extinction?

Examples from the episode:

There were only a few Przewalski's horses that remained in Mongolia. Careful breeding of 12 of these horses in captivity increased their numbers until they were safe to release back onto the plains. Their recovery was secured only because the vast Mongolian grassland has remained largely untouched.

Over the last 100 years, the number of wild tigers has declined by over 95%. But in India, despite pressure from poaching and a growing human population, tiger numbers are increasing, thanks to protection of the grasslands. Protect the precious space that deserts and grasslands provide, and the animals will bounce back.

5 Agriculture is the world's largest industry – it employs more than one billion people and generates trillions of dollars' worth of food each year. When sustainably managed, agriculture can benefit the ecosystem; some of our healthiest remaining grasslands are privately or communally managed and sustainably grazed for livestock, which keeps them from being converted into cropland and supports biodiversity. But when unsustainably managed, agriculture can destroy habitats and have serious detrimental impacts to wildlife. Define unsustainable agriculture; what is the current design problem? Discuss innovative solutions for how we will feed people in the future when we've run out of space, without harming the environment.

Example from the episode:

Two hundred years ago, millions of bison grazed across the grasslands of the Northern Great Plains. Today, 40% of North American grassland has been lost to cropland, and less than 30,000 plains bison remain.

6 Consider your recent meals. What did you eat? Did you have any leftovers? What did you do with them? What small changes could we make in our everyday routines that could greatly impact the future of grasslands?



ACTIVITIES

ACTIVITY IDEA	SUBJECTS
Play a game that forces players to work together and demonstrate the benefits of wildlife corridors to species like elephants.— How Did the Elephant Cross the Road?	Physical education
Design an experiment to test elephant deterrent techniques and avoid human conflict.— How to Outsmart an Elephant	Science
Conduct a science experiment to understand the importance of soil to healthy life everywhere.— Don't Treat Soil Like Dirt!	Science
Use what you've learned about how our food practices impact the health of our planet to write a letter to a future pen pal about the Earth.— Eating Our Planet	Language arts
Rethink throwing out that sandwich from your lunch after calculating what it took to get it to you.— How Much Water Is in Your Lunch?	Math
Bring the challenge and importance of reducing food waste to life by measuring what's getting thrown out in your own cafeteria.— Be a Food Waste Warrior	Science
Take the Food Waste Quiz to test your knowledge of how we treat our food and how it impacts our planet. Then create a pledge for your home or school of how you plan to alter your food routine and make a difference.	Social studies

What We Can Do:

- Farm smarter—our planet provides us enough space to grow food for every person and leave enough space for wildlife that needs grasslands to survive. With farming methods improving all the time, we can produce all we need using less space.
- Diversify our diets—by making careful choices about what we eat, we can have a healthy diet while reducing the amount of space needed to produce our food. Eat more fruits and vegetables, buy sustainably produced products, and follow recommended dietary guides.
- Cut out food waste—we can avoid wasting food by buying and preparing only what we need. At meals, try to take only as much food as you realistically think you'll eat. If you do end up with leftovers, save it for another time or repurpose it, rather than throw it away. Encourage your school to compost or establish a share table in the cafeteria to avoid wasting food.
- Spread the word—share with family and friends how they can help by saving food, balancing their diets, and shopping smarter.

Additional Resources:

- [Understanding grassland loss in the Northern Great Plains](#)—breaks down what's happening in the Great Plains of North America and why it matters
- [Grasslands habitat WWF webpage](#)—explains why prairies are important and the threats they're facing
- [Deserts habitat WWF webpage](#)—an overview of these unique habitats and the species that depend on them
- [Meet the bison: facts about America's national mammal](#)—why bison are unique to our landscape
- [Elephant species WWF webpage](#)—what WWF is doing to help protect these magnificent species and their migration routes
- [The next Dust Bowl? Great Plains grassland loss slows overall, but rises in South Dakota](#)—recounts the Dust Bowl of the 1930s and how we prevent history from repeating itself
- [Our Planet official webpage](#)