

Managing Environmental Resources: Part 2

LESSON OVERVIEW

This section invites students to explore how we manage our environment and natural resources. It introduces broader concepts that encourage critical thinking skills around environmental decision-making, responsibility, and the roles that different groups play in managing shared resources.

GOALS

- Show students the impacts that individuals, communities, government, and corporations can have on common resources.
 - Understand and identify ways that we can better protect our common resources.
 - Gain awareness of environmental issues through a discussion of laws and hypothetical scenarios.
 - Extend student learning by analyzing real-world case studies, allowing them to explore the challenges and complexities of managing resources in practice.
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MATERIALS

- Overview and Background Information Document
- Slide Deck: Managing Environmental Resources Part 2
- Activity: Just or Unjust
- Worksheet: Reflection Questions
- Optional Case Studies and Worksheets



PROGRAM OF STUDY CONNECTIONS

Environmental and Outdoor Education 9	Environmental Core: 3b
CTF Challenges	The Common Good (Managing Environmental Resources pg. 18-22) Let's Support Nature (Species Law pg. 27-32)
Social Studies 10-1/-2	POS 2.2-2.3, 3.2-3.3, 3.6-3.9, 4.8-4.10
Social Studies 20-1/-2	POS 1.11, 2.1-2.3, 3.2, 3.6, 3.8, 4.9
Social Studies 30-1/-2	POS 1.6-1.9, 3.7-3.9, 4.3, 4.9, 4.10
Science 10	Unit B: sts&k 3.8 Unit D: sts&k 1.1, 3.4, 4.1, 4.6
Science 14	Unit D: sts&k 1.8, 2.8, 2.9
Science 20	Unit D: 1.4k, 1.5k, 1.2sts, 1.2s, 2.1sts, 2.2sts
Science 24	Unit A: sts&k 4 Unit B: sts&k 4
Science 30	Unit D: 1.4k, 1.5k, 1.6k
Biology 20	Unit A: 2.1sts, 3.1s, 3.2s, 3.4s Unit B: 1.1 sts
CTS: Natural Resources	ENS: 1110, 1115, 2030, 2050, 2120, 2140, 3050, 3110, 3120 WLD: 1070, 1075, 1080, 2040, 2070, 2080, 2090, 3020, 3050, 3060, 3090 FOR: 1110, 2010, 2100, 3010 PRS: 1020, 1050
CTS: Legal Studies	LGS: 2030, 2040, 3060



LESSON OUTLINE

Time (times are all approximate)	Description	Materials and Resources
10 minutes	A. Tragedy of the Commons Review <ul style="list-style-type: none"> If you already did part 1, use this time to review. If not, this is a brief introduction to the idea of the tragedy of the commons including an example. 	Managing Environmental Resources Part 2 Slide Deck Slides 1-7
20-30 minutes	B. Environmental Challenges and Justice <ul style="list-style-type: none"> Environmental challenges Justice meaning Just or unjust activity Environmental racism and justice 	Slides 8-13 <ul style="list-style-type: none"> Just or Unjust Activity <u>Video: Does climate change affect us all the same way?</u>
15 minutes	C. Environmental Justice and the Law <ul style="list-style-type: none"> Challenges Indian Act 	Slides 14-17
15 minutes	D. Lesson Reflection	Slides 18-19 <ul style="list-style-type: none"> Lesson Reflection Worksheet
If you choose to include the optional components, more time will be required.	E. Optional Case Studies <ol style="list-style-type: none"> Government regulation: Chemical Valley Privatization of Water: Nestle Managing River Health in Indigenous Communities 	<ul style="list-style-type: none"> Managing Natural Resources Case Studies



LESSON PLAN

This lesson is divided into two parts, each of which can be taught independently as a stand-alone lesson. Optional case studies can be added to deepen learning, though they may require an additional class to complete.

All background knowledge needed to facilitate this lesson can be found in the [“Environmental Laws 101” Document on pages 18-22](#). Along with the slide deck and activities provided, you have all the resources needed to facilitate this lesson. If you need further clarification or additional information, please don't hesitate to reach out to programs@abcee.org.

A. TRAGEDY OF THE COMMONS

Slides 1-6

- **Topic: Tragedy of the Commons (review from part 1):** The Tragedy of the Commons is an idea that was developed by the environmental scientist Garrett Hardin. His thesis was, if multiple people all have access to a common resource, they will each exploit the said resource for their own personal benefit without any of them taking responsibility for its protection. This will eventually mean that the resource is used up or destroyed.
- **Example (review from part 1): South Saskatchewan River Basin Water Overuse (Slide 3-4)**
 - The South Saskatchewan River flows through southern Alberta and is used by many people for different things like farming, drinking water, industry, and recreation.
 - Over time, more and more people started taking water from the river, especially for irrigation (watering crops). Everyone wanted to use the water for their own needs, but no one was really making sure the river had enough left to stay healthy.
 - Eventually, so much water was being taken out that:
 - There wasn't enough left for fish and wildlife
 - Wetlands started drying up
 - Some parts of the river became too low to use safely
 - Today, water allocations in some smaller parts of the larger river system (like the Bow and Oldman) are fully allocated, meaning no new licences can be issued.
- **Discussion: (Slides 5-6)**
 - Why is this a Tragedy of the Commons?
 - A shared resource is used too much because everyone is thinking about their own short-term benefit, and not about long-term sustainability or the cumulative impacts of many activities over time.
 - How can we prevent this from occurring?
 - Examples: government regulation, privatization - give the responsibility to someone, education, etc.
 - What has been done to try and resolve the issue?
 - Today, water allocations in some smaller parts of the larger river system (like the Bow and Oldman) are fully allocated, meaning no new licences can be issued.
 - There is also a need to protect the aquatic environment (habitat, fish, vegetation). As a result, conditions are often placed on new licences to protect the health of the environment.



B. ENVIRONMENTAL CHALLENGES AND JUSTICE

Slide 8

- **Topic: Environmental Challenges**

- Modern environmental challenges, especially climate change, are more complicated because they affect everyone around the world, not just one place. Often, the damage caused by using resources without paying their full cost doesn't show up right away; it can take years or even decades before we see the harmful effects. This time delay makes it harder to connect our actions today with future consequences.
- From an environmental justice perspective, this complexity is especially important because the people who contribute least to problems like climate change, often marginalized communities and Indigenous peoples, are usually the ones who suffer the most. They face greater risks from things like extreme weather, pollution, and loss of traditional lands, even though they benefit the least from resource exploitation.
 - This is why it's important to find solutions that are fair and include everyone's voice, especially those who are most affected.

Slides 9-12

- **Brainstorm: What does justice mean?**

- As a class or in small groups, write the word "Justice" on the board, on a large piece of paper, or in a digital document.
- Each student adds one word that connects to justice. It could be what justice means to you, how justice makes you feel, or a word that helps you understand it better.
 - Make sure your word is unique, don't repeat something someone else has already added!
- Once everyone has shared their word, look at the list as a group (or as a class).
 - Circle or highlight the words you think are the most important to include in a definition of justice.
 - Talk about why those words matter and how they connect to the idea of fairness or doing what's right.
- What else do you need to know or think about as you consider the meaning of justice?
 - Write down any questions you have on the edges of the board or paper. Save these for the end of the lesson to refer back to and see if they have been answered.

Slides 10-11

- **Activity: Just or Unjust**

- **Explain:** People may have different opinions about whether a situation is just or unjust because our identities and lived experiences shape how we see the world and understand fairness and justice. In this activity, you'll explore several scenarios and decide whether you believe each one is just or unjust. There are no right or wrong answers. The goal is to reflect on your own perspectives and begin to understand how different people might view the same situation in very different ways. You may also feel unsure and possibly conflicted about the situation.
- **Activity set-up:** Draw a line on the board or on a sheet of paper, and label one end of the line "Just" and the other "Unjust." Or imagine a line running across your classroom, and choose one side of the room to be "Just" and the other "Unjust."
 - Alternatively, you can also use an anonymous form through menti or kahoot.



- As a class or in small groups, examine any number of the statements from the Just or Unjust Activity Prompts
- Explain that there are no right or wrong answers because everyone has different identities and lived experiences that will impact how they think about these scenarios. **(Slide 11)**
 - For each prompt used, ask students: **How just or unjust do you think this situation is?**
- For each situation, write the situation number or physically place yourself along the line between “Just” and “Unjust.”
- For each statement, students with different perspectives can share what they thought made the situation just or unjust.
- **Extend the learning:** Prompts from this activity can be used in more structured debates, Socratic seminars, or as written assignments where students defend their position.

Slide 12-13

- **Topic: Environmental racism and environmental justice are separate but related concepts.**
 - **Environmental Racism** is the intentional location of hazardous waste sites, landfills, incinerators and polluting industries in areas inhabited mainly by Black, Latino, Indigenous Peoples, Asians, migrant farm workers and low-income people.
 - **Environmental Justice** is the fair and consistent distribution of environmental benefits and burdens, without discrimination based on socio-economic status, race, ethnic origin, or residence on an Indigenous reserve.
 - Video: Does climate change affect us all the same way? (3:55 min)

C. ENVIRONMENTAL JUSTICE AND THE LAW

Slides 14-17

- **Topic: Challenges**
 - One of the challenges in the fight for environmental justice is that environmental racism isn't always easy to see. Unlike other forms of racism or discrimination, it's often hidden within the way our systems work, like how decisions are made by governments or appeal boards. This can lead to underlying biases and unfair treatment of certain communities, especially when it comes to protecting land, air, and water.
 - *Example: In Canada, many Indigenous communities living on reserves face serious environmental injustices such as:*
 - *Lack of access to clean drinking water*
 - *Industrial development on Indigenous lands or near culturally important places*
 - *Conflicts over how land is managed or protected*
 - It can be very hard for people or communities to get help through the legal system when they're affected by environmental problems. Here's why: **(Slide 15)**
 - **Standing:** This means having the legal right to go to court. In environmental cases, it's not always clear who gets to speak up. For example, if a river is polluted, who has the right to stand up for that river?
 - **Cost:** Even if someone is allowed to go to court, legal cases are expensive. Environmental issues often involve science, and both sides might hire experts to support their arguments. This can turn into a “battle of the experts,” which is very costly and hard to win without money or support.
 - **Proof:** It's also tough to prove where the harm came from. For example, pollution often accumulates gradually from multiple sources, making it difficult to pinpoint exactly who is responsible.



- **Topic: Systemic Environmental Racism (Slides 16-17)**

- Injustices are often sustained or reinforced by the very systems in which they exist.
 - This is the case with The ***Indian Act*** in Canada. The Indian Act is the main piece of federal legislation governing the relationship between Indigenous Peoples and the federal government.
 - It was first passed in 1876 and was a consolidation of various laws relating to the Indigenous People that had been living in Canada long before Colonization.
 - The Indian Act remains controversial and many regard it as a racist piece of legislation, relegating Indigenous People under federal control and leading to outdated and demeaning decisions about their land, health, education, and more.
 - How does this relate to environmental justice?
 - The Indian Act banned Indigenous People from land ownership and eventually allowed companies to extract resources on reserve land.
 - Historically, resource extraction on reserves has often caused environmental damage, with little attention given to Indigenous Peoples' traditional ecological knowledge or concerns. This has limited their ability to protect and care for their lands.
 - **Explain:** Environmental justice means everyone should have equal protection and a fair chance to speak up when the environment they rely on is being harmed. Right now, that doesn't always happen, especially for Indigenous Peoples and marginalized communities. Making laws more fair, improving access to clean land and water, and respecting Indigenous and marginalized voices are all key parts of making environmental justice real in Canada.
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D. LESSON REFLECTION

Slide 18-19

- Have you ever seen or experienced an environmental issue that felt unfair? What happened?
- What role do laws, governments, or corporations play in creating or addressing environmental injustice?
 - *Hint: Think about who makes decisions about land use, pollution, and access to clean air and water. Consider whether certain policies protect some groups more than others, or fail to protect vulnerable communities at all.*
- How can youth, like you, help promote environmental justice?
- What questions do you still have about environmental justice? (refer back to any questions students noted at the beginning of the lesson)



E. CASE STUDIES

Review one or more of the following case studies and complete the provided discussion questions and/or assignments. Case studies can be used for in-class discussions or as an assignment.

CASE STUDY 1: GOVERNMENT REGULATION IN CHEMICAL VALLEY, ON

- Case Study and Discussion Questions
- Optional:
 - Review the section on Environmental Justice on page 23-26 in the Background Document
 - Video: [Canada's Toxic Chemical Valley](#) (Full Length: 31:12)
 - Note: the video shows clips from protests that include swear words (2:26, 4:03)
 - Research: Students can look up the air quality policy that was agreed upon before moving on to the discussion questions.
 - Environmental Registry of Ontario, "[Cumulative effects assessment in air approvals](#)" (26 April 2018) Government of Ontario.

CASE STUDY 2: PRIVATIZATION OF WATER, NESTLE

- Case Study and Discussion Questions
- Optional:
 - Video: [Water for Life, Not for Profit! The Fight Against Nestlé in Ontario](#) (3:00)
 - Article: [Nestlé Waters leaving Canada is a community success](#) (2020)
 - Article: [Nestlé faces renewed criticism as B.C. drought continues](#) (2015)

CASE STUDY 3: MANAGING RIVER HEALTH IN INDIGENOUS COMMUNITIES

- Case Study and Discussion Questions
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RESOURCES

- [Ecojustice](#)
- [Government of Canada: Environmental Justice and Environmental Racism](#)

