

LESSON 3: INTERNATIONAL ENVIRONMENTAL POLICY

Lesson plan overview

In this lesson, students explore major global efforts to restore and protect rainforests and other tropical forests, including REDD+, the 30x30 Initiative, the Great Green Wall, and Indigenous land stewardship. By comparing these strategies, students evaluate their costs, impacts, and challenges, and consider how evidence-based policies can shape a sustainable future. Through worksheets, quizzes, and creative projects, they will learn that protecting and restoring rainforests is not just about stopping deforestation—it's about balancing environmental, social, and economic needs while promoting local forest communities as key partners in conservation.

Educational materials

- **Videos:** 'REDD+?'; '30X30 Initiative'; 'The Great Green Wall'; 'Indigenous Land Rights and Stewardship'
- **Worksheet:** Policy evaluation matrix
- **Quiz:** Short answer and matching of terms and policies
- **Math tie-in:** How would you spend \$10 million to save the rainforest?
- **Art tie-in:** Advocacy poster for environmental protection
- **Classroom discussion questions:**
 - What are the benefits and drawbacks of these policies?
 - Who should be responsible for restoring rainforests?
 - What are some other policies you might design to regenerate the rainforest?

WORKSHEET: Policy Evaluation Matrix



Name: _____ Date: _____

Instructions for students

You will evaluate four major forest and biodiversity strategies. For each one, consider the cost, environmental impact, local community benefits, and feasibility. Use the chart below to organize your thoughts, then answer the reflection questions.

Policy / strategy	Cost 💰	Environmental impact 🌍	Local benefits 👤	Feasibility ⚖️
REDD+				
30x30 Initiative				
The Great Green Wall				
Indigenous Land Rights and Stewardship				

Policy Background Information: Environmental Protection and Restoration



REDD+

(Reducing Emissions from Deforestation and Forest Degradation)

Goal

Slow down deforestation and climate change by rewarding countries and communities for keeping forests standing.

How it works

Forests are monitored; if less deforestation happens than expected, carbon credits are earned. These can be sold or traded to fund sustainability projects.

Benefits

Helps lower carbon emissions, supports conservation, and can provide money to local communities.

Challenges

Monitoring forests is expensive; sometimes funds don't reach local people; enforcement is uneven.



30x30



30x30 Initiative

Goal

Protect 30% of the world's land and oceans by 2030.

How it works

Governments, Indigenous peoples, and conservation groups designate protected areas like parks, reserves, or Indigenous territories.

Benefits

Protects biodiversity, safeguards water and soil, helps fight climate change, and can create eco-tourism opportunities.

Challenges

Weak enforcement, insufficient funding, and lack of equity for local communities.



GREAT GREEN WALL

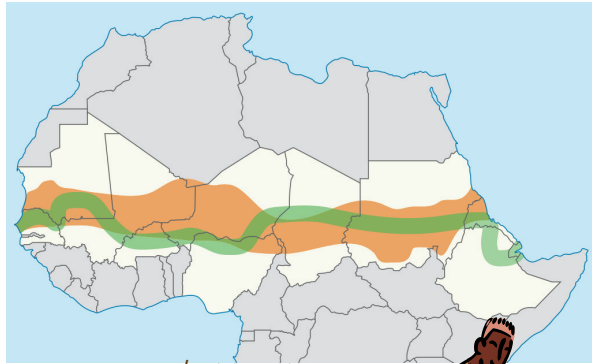
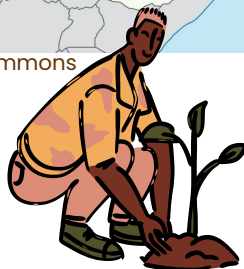


Image : Sevgart / Wikimedia Commons



The Great Green Wall (Africa)



Goal

Restore land across the Sahel region of Africa (just south of the Sahara Desert) by planting trees and reviving farmland.

How it works

Communities plant trees, grow crops sustainably, and restore soils across 8,000 kilometers of land.

Benefits

Creates jobs, improves food security, restores biodiversity, and helps communities adapt to climate change.

Challenges

Climate change makes planting harder, conflicts slow progress, and projects need steady funding.

Indigenous Land Rights and Stewardship

Goal

Recognize and protect Indigenous peoples' rights to their traditional lands.

How it works

Governments and international groups support legal land rights, community-led conservation, and cultural traditions.

Benefits

Indigenous lands often have the lowest rates of deforestation, protect biodiversity, and preserve culture.

Challenges

Indigenous defenders face threats from illegal logging, mining, or land grabs; legal protections are not always enforced.



Part B: Reflection questions



Which strategy seems the most effective overall? Why?

Which strategy seems the most challenging to implement? Why?

How do Indigenous-led approaches compare with international/global policies?

If you were designing a new policy, what would it include?

WORKSHEET: ANSWER KEY

Policy Evaluation Matrix



There are no single “right” answers—students should support their choices with reasoning.

Example observations:

REDD+: Costly but can bring strong global funding; depends on monitoring.

30x30: Ambitious, major environmental impact if enforced, but needs political will.

The Great Green Wall: Strong community involvement, improves soils, but faces climate and funding challenges.

Indigenous Land Rights and Stewardship: Proven long-term success, high biodiversity protection, strong cultural equity benefits, often underfunded.

QUIZ: Environmental Initiatives

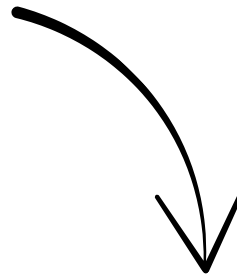


Name: _____ Date: _____

Part A: Matching (1 point each)

Match each policy or initiative to its description.

- ___ REDD+
- ___ 30x30 Initiative
- ___ The Great Green Wall
- ___ Indigenous Land Rights and Stewardship



Descriptions:

- a) A plan to protect 30% of Earth's land and oceans by 2030.
- b) A program that rewards countries and communities for reducing deforestation and carbon emissions.
- c) A project across Africa's Sahel region to restore farmland, plant trees, and improve resilience.
- d) Recognizing community rights to land as a key conservation strategy.

Part B: Multiple choice (1 point each)

Which of these is a major benefit of Indigenous land stewardship?

- a) High deforestation rates
- b) Strong biodiversity protection
- c) Dependence on fossil fuels
- d) Industrial-scale monocultures

What is one major challenge of the 30x30 Initiative?

- a) It doesn't involve governments.
- b) It relies too much on fossil fuels.
- c) Funding, political will, and equity for local people.
- d) It only applies to oceans, not forests.

The Great Green Wall was originally designed to:

- a) Build a wall to block the desert winds.
- b) Plant trees across Africa's Sahel region to combat desertification.
- c) Replace Indigenous farming with industrial farms.
- d) Protect 30% of forests by 2030.

Part C: Short answer (2–3 sentences each, 2 points each)



What is one strength and one weakness of REDD+ as a conservation strategy?

Why are Indigenous communities often called the “guardians of the forest”?

If you were designing a new policy to protect and restore rainforests, what would you include?

QUIZ: ANSWER KEY



Part A Matching

- 1 → b (REDD+: reduce deforestation, carbon credits)
- 2 → a (30x30: 30% protection by 2030)
- 3 → c (The Great Green Wall: Africa, reforestation, resilience)
- 4 → d (Indigenous rights: land tenure and stewardship)

Part B Multiple choice

- 5 → b (Strong biodiversity protection)
- 6 → c (Funding, political will, equity)
- 7 → b (Planting trees in the Sahel to restore land)

Part C Short answer (sample responses)

8. Strength: REDD+ reduces emissions and rewards conservation. Weakness: Monitoring is expensive and funds don't always reach local people.

9. Indigenous communities are called guardians because they manage biodiverse lands sustainably, protect forests from exploitation, and pass down ecological knowledge.

10. Student answers will vary, but may include combining funding with local rights, expanding reforestation, or linking policies with sustainability initiatives.

MATH TIE-IN

How Would You Spend \$10 Million to Save the Rainforest?



Objective

Students will apply math skills to budget \$10 million across different environmental protection strategies (REDD+, 30x30, the Great Green Wall, Indigenous land rights) and evaluate the trade-offs of their choices.

Policy/strategy	Cost per unit	Example impact per unit	Notes
REDD+	\$1 million protects 50,000 hectares of rainforest	Reduces carbon emissions by 10 million tons	Often global funding, requires monitoring
30 x 30 Initiative	\$2 million creates 1,000 hectares of new protected areas	Protects habitat for 200 species	Works best with strong enforcement
The Great Green Wall	\$500,000 restores 100 hectares of degraded land	Improves soil fertility, creates 200 jobs	Climate challenges can slow progress
Indigenous Land Rights and Stewardship	\$1 million secures land title for 200,000 hectares	Proven to reduce deforestation rates by 2–3x	Climate challenges can slow progress

Disclaimer: All figures are fictional and are solely for the purposes of this exercise.

MATH TIE-IN



How Would You Spend \$10 Million to Save the Rainforest?

Step 2: Allocate your \$10 million

Decide how much to spend on each strategy. You can divide it evenly or focus on just one.

Calculate the impacts:

How many hectares are protected or restored?



How many tons of carbon could be reduced?



How many species or jobs are supported?



MATH TIE-IN

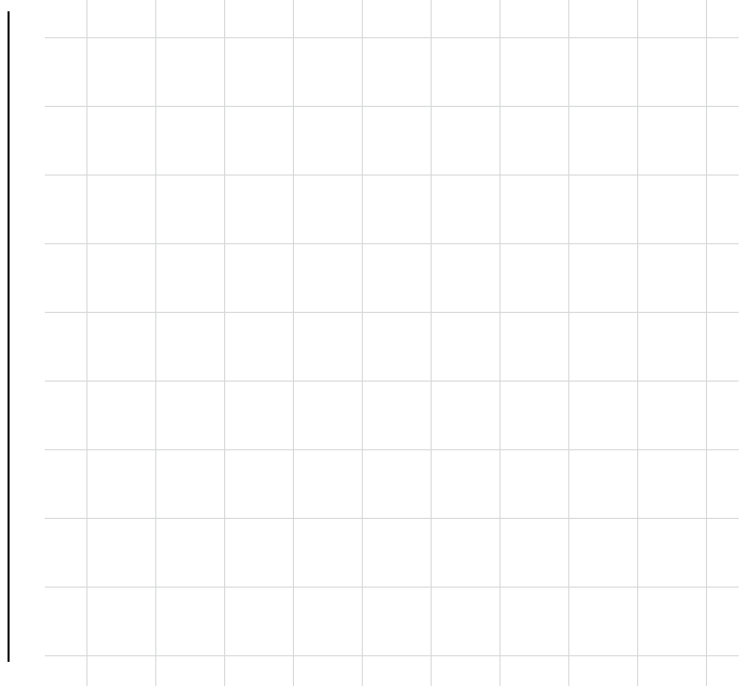


How Would You Spend \$10 Million to Save the Rainforest?

Graph your choices:

Create a bar graph or pie chart showing your spending breakdown.

My \$10 Million Allocation



Critical thinking question:

Which strategy gave you the most impact for the least cost?

What trade-offs did you make in your budget?



MATH TIE-IN (FOR TEACHERS)



Example answer:

\$3 million to REDD+ → 150,000 ha protected, 30 million tons CO₂ reduced

\$2 million to 30x30 → 1,000 ha protected, habitat for 200 species

\$3 million to Great Green Wall → 600 ha restored, 1,200 jobs created

\$2 million to Indigenous Land Rights → 400,000 ha titled, strong biodiversity & cultural impact

Discussion takeaway:

Students may notice Indigenous Land Rights and Stewardship has the largest impact per dollar in land area, while the Great Green Wall produces strong social benefits, and REDD+ focuses on carbon.

There's no single "right" answer—the key is evaluating trade-offs.

ART TIE-IN



Advocacy Poster for Environmental Protection

Objective

Students will design a visual campaign poster that advocates for one of the environmental strategies they've learned about (REDD+, 30x30, the Great Green Wall, or Indigenous Land Rights and Stewardship). The goal is to communicate why the strategy matters and inspire others to support it.

Instructions

Choose your focus:

- Pick one strategy (REDD+, 30x30, the Great Green Wall, Indigenous stewardship).

Design your poster:

- Include a catchy slogan (e.g., "Forests for the Future" or "30x30: Nature Needs Space").
- Add symbols or imagery that show the strategy's impact (trees regrowing, communities thriving, animals protected).

Use colors to represent themes:

 Green = nature, growth

 Red = urgency, deforestation threats

 Blue = water, life

Add key facts:

Write 2–3 short, powerful facts about the strategy.

Example:

"Indigenous peoples protect 80% of Earth's biodiversity."

"The Great Green Wall has restored millions of hectares in Africa."

Make it persuasive:

The poster should inspire action. Think: What would make someone care? What would make them want to help?

Teacher Notes

Posters can be made on paper, digitally (Canva, Google Slides), or even as class murals.

This project combines visual creativity with research and communication skills. Works well as a gallery walk where students explain their posters to classmates.