POLS2094
WEEK 10 2026

Australian National University
School of Politics & International Relations
Richard Frank

General questions for this week

The goal for Week 10 is to expand our understanding of the international political economy of energy production and its effects on the environment. The main questions we will focus on this week are: What is the political economy of energy and the environment? How do IPE dynamics shape energy and environmental transitions? What are the IPE drivers for multilateral environmental regimes?

Reading notes and questions

Please read the assigned chapter before lecture and tutorial. We will be referring to them repeatedly during the week. For week 10, please read:

Hallerberg et al. 2021. "Chapter 8: Politics of the Global Environment." pp. 181-204. [24 pages]

This chapter examines the politics of global environmental governance, focusing on how countries address transboundary environmental challenges. It identifies eight major environmental threats: climate change, ozone depletion, biodiversity loss, air/water pollution, water resource depletion, deforestation, land degradation, and natural resource depletion. The chapter explores why governments took so long to address these issues multilaterally and analyses International Environmental Agreements (IEAs) as the primary mechanism for cooperation. It discusses how environmental problems represent negative externalities and tragedy of the commons scenarios, requiring collective action to solve. The chapter explains that IEAs facilitate cooperation by setting standards, providing information, reducing transaction costs, and leveraging reputation concerns. Non-state actors like environmental NGOs, business groups, and scientific communities play crucial roles in environmental politics alongside governments. The chapter concludes by comparing successful agreements like the Montreal Protocol with less effective ones like the Kyoto Protocol, attributing differences to factors including North-South divides over funding mechanisms, sanctioning mechanisms, and domestic political pressures.

Petrenko, Chelsea, Julia Paltseva, and Stephanie Searle. 2019. Ecological Impacts of Palm Oil Expansion in Indonesia. Washington, DC: The International Council on Clean Transportation. [14 pages]

The Petrenko et al. (2019) study examines the ecological impacts of palm oil expansion in Indonesia, the world's leading producer of palm oil. The paper highlights that while oil palm is highly efficient, its rapid expansion leads to severe environmental consequences including deforestation, biodiversity loss, greenhouse gas emissions, and pollution. Indonesia's palm oil industry has grown dramatically, with harvested area increasing from 4.1 million hectares

in 2006 to an estimated 8.9 million hectares in 2015, projected to reach 17 million hectares by 2025. The conversion of forests to palm plantations significantly reduces biodiversity, with plantations supporting only 15-23% of primary forest species. This expansion also causes substantial carbon emissions, especially when established on carbon-rich peatlands. Additional environmental impacts include air pollution from forest fires, water pollution from agrochemicals, and social consequences for indigenous populations who lose land rights. The authors recommend stricter enforcement of environmental regulations and suggest focusing new palm development on degraded lands rather than forests.

Reading questions

Remember

1. What are the eight main environmental threats identified in Chapter 8?
2. Define what "International Environmental Agreements" (IEAs) are and provide two examples discussed in Chapter 8.
3. What is the "tragedy of the commons" problem and how does it relate to global environmental issues?
4. What are the four main functions of International Environmental Agreements?
5. Who are the main actors in global environmental politics?
6. What is the difference between hard-law and soft-law in the context of IEAs?
7. What was the key goal of the Montreal Protocol and when was it adopted?
8. What are the main environmental consequences of palm oil expansion?
9. How much of Indonesia's deforestation between 2000-2010 was directly attributed to oil palm expansion?

Understand

10. Explain why environmental problems are considered transboundary in nature. Why does this characteristic require international cooperation?
11. What is meant by "negative externalities" in the context of environmental issues? Provide an example from the reading.
12. Why did governments take so long to acknowledge and address global environmental threats?
13. Describe the "free riding" problem in global environmental politics. How does it impede collective action?
14. Explain how domestic distributional politics can affect a country's participation in environmental agreements.
15. How did the Montreal Protocol and Kyoto Protocol differ in their approaches to funding mechanisms for developing countries?
16. What role do "epistemic communities" play in global environmental politics?
17. How do trade agreements relate to environmental cooperation?
18. Explain why palm oil is described as both highly efficient and environmentally problematic.
19. Describe the relationship between palm oil expansion and biodiversity loss in Indonesia.

Apply, analyse, and evaluate

20. Analyse the factors that contributed to the success of the Montreal Protocol versus the relative failure of the Kyoto Protocol.
21. Evaluate the role of the North-South divide in global environmental politics. How might this divide be bridged to improve environmental cooperation?
22. Apply the concept of "distributional conflict" to a current environmental issue not discussed in Chapter 8.
23. What lessons can be drawn from successful IEAs that might inform the design of future agreements?
24. Critically assess the three policy recommendations offered in the conclusion for making IEAs more effective.
25. How might the functions of IEAs be strengthened to address collective action problems more effectively?
26. Evaluate the assertion that non-state actors have become increasingly important in global environmental governance. Is this a positive or negative development?
27. How might technological innovation alter the politics of global environmental governance in the coming decades?
28. Analyse the trade-offs between economic benefits and environmental costs of palm oil production in Indonesia.
29. Critically analyse the relationship between international demand for palm oil (including biofuel policies) and environmental degradation in Indonesia.

Lecture—The IPE of the environment and energy

Part 1. The IPE of energy and the environment

So far, we have discussed

Actors, institutions, and ideas shape IPE across a variety of issue areas.

Economic and human development is shaped by unequal economic growth and advances in human potential.

This week we explore

The intersection between the energy sector and the environment
Tensions between economic growth imperatives and climate imperatives
What IPE helps us understand about energy and environmental transitions
What multilateral environmental regimes have evolved

Motivating questions

1. What is the political economy of energy and the environment?
2. How do IPE dynamics shape energy and environmental transitions?
3. What are the IPE drivers for multilateral environmental regimes?

Global trade and investment have increased standards of living

Graph of life expectancy over time

Environmental issues

Climate change
Ozone layer depletion
Species extinction and biodiversity loss
Air and water pollution
Depletion of water resources
Deforestation
Land degradation
Depletion of natural resources

Negative financial flows

"Globally, over half of GDP (55%) – or an estimated US$58 trillion – is moderately or highly dependent on nature and its services….

"Negative finance flows in the form of private finance, tax incentives, and subsidies that exacerbate climate change, biodiversity loss and ecosystem degradation are estimated at almost US$7 trillion per year, or 7% of global GDP. (Living Planet Report 2024: 78)

Air and water pollution

Causes of air pollution	**Causes of water pollution**
Fossil fuel combustion	Industrial discharge
Industrial processes	Agricultural runoff
Agricultural activities including slash & burn	Urban runoff
Waste management	Sewage and wastewater
Transportation	Oil spills
	Plastic pollution
	Mining activities

Indonesia's 2023 exports

Impediments to collective action

Most pressing problems are transboundary
Negative externalities
Tragedy of the commons
Free riding
Distributional conflict
Domestic distributional politics

Fundamental question

There are current and future **winners and losers** in the IPE of the energy sector and environmental use and protection.

Should the international system address them through **governance** or through **market structures**?

Motivating questions

1. What is the political economy of energy and the environment?
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3. What are the IPE drivers for multilateral environmental regimes?

Part 2. How do IPE dynamics shape energy and environmental transitions?

World Energy Outlook 2025 figures

Global energy mix
C02 emissions and GDP per capita
Clean power capacity
Electricity generation by source

Statistical Review of World Energy 2025

World energy use by source
Energy demand by region
CO2 intensity
Fossil fuel combustion
How political actions affect commodity prices
Global coal consumption

Australian exports, 2023

Two transitions

The data above suggests there are two transitions underway.
One away from fossil fuels (slower)
One towards sustainable development (faster)

Existing framework

Environmental externalities of economic production not totally priced in.
Unsustainable resource extraction
Growing demand for new and old products and industries
Environmental and social impacts in extraction zones

Relevant actors

States

International organisations
Non-governmental organisations
Transnational actors (corporations, social movements, cities)
Businesses of various sizes
Individual communities

Winners and losers

Paradoxically as fossil fuels become less viable and suppliers decrease, profits and leverage of remaining fuel exporters may go up. (Colgan and Hinthorn 2023)

Coal is still a main source of energy in some areas even as production decreases markedly in former producers and oil and natural gas use skyrocketed (US and UK)

Graph from Colgan and Hinthorn (2023: 86)

Enduring use of old technology

Horses and other animals are still used for transport

Still no technical replacements for long-distance aviation, petrochemicals, rural vehicle use.

Energy transition will not happen soon enough to sufficiently bend GHG emissions and legacy fuels absolute use may stay the same or increase.

Impacts of existing production

Exporters can exert political pressure through supply control.
Tax revenue less dependent on civilian taxes.
Lobbying and political financing
National security overlaps with energy security
Resource curse
Corruption

Shifting resource priorities

From oil to lithium, cobalt, and rare earths
What political effects will this have?

Four factors that shape transition

1. Turnover cycle for fossil fuel consuming capital like cars and power plants are slow.
2. Social, technical, or institutional difficulty in integrating new tech with existing systems.
3. Business and interest groups spread misinformation, lobby against reforms and oppose change
4. Regulatory arbitrage between states with implemented policies and those that have not. (solution carbon tariffs?)

Power of incumbent fossil fuel interests (map)

> "[C]ompanies experiencing a stronger decrease in stock value with more negative climate-related news are more likely to lobby and lobbying expenditures are higher." (Lantushenko and Schellhorn 2023: 15)

Fossil fuels in domestic and international politics

Domestic dimensions
Lobbying
Campaign donations
Regional investment
International politics
Tool of foreign policy
Resource nationalism (e.g. Saudi Aramco, Petrobras, Gazprom)
Climate negotiations
Regional stability

Bottom-up efforts

Voting pressure
"[M]ost voters are not willing to sacrifice energy consumption for environmental goals, and their willingness to pay for climate mitigation measures is relatively low." (Colgan and Hinthorn 2023: 85)
Coordinated protests
Community energy cooperatives (e.g. Latin America)
Samsø Island (Denmark) community wind turbines
European commission citizen energy advisory hubs

Top-down efforts

Carbon taxes
Emissions trading schemes
Feed-in-tariffs
Renewable portfolio standards
Green certificate trading (China)
Building energy codes
Vehicle efficiency standards
Direct subsidies and investments

Market concentration issues

Previously common to have a monopoly provision of utility services.
Carbon credit efforts have been accused of greenwashing.

Supply chain vulnerabilities

Geographic concentration
Water stress

Raw material scarcity
Cyberattack vulnerabilities
Physical attacks
Transmission capacity constraints
Price volatility

Part 3. What are the IPE drivers of multilateral environmental regimes?

Top-down approaches to cooperation

Market mechanisms
Government policy
Bilateral trade agreements
International environmental agreements

Market mechanisms

Carbon taxes
Carbon tariffs

Carbon markets

Neoliberal climate policy approaches

Carbon tariffs

Taxes on imports based on the amount of carbon used in making and shipping products from countries that are seen to be shirking their global responsibility to tackle climate change.

EU tariffs on steel, cement, and some electricity to avoid "**carbon leakage**"

Government policy

Varieties of capitalist (liberal, coordinated, state, social democratic) and national, subnational, and supranational responses to climate change (market, state-directed, mixed, and regulatory).
These include responses up to and including carbon tariffs and taxes.

Bilateral trade agreements with environmental provisions

WTO Article XX exceptions for natural resources, human, animal, and plant life
Non-derogation clauses (don't lower standards to attract trade/investment)
NAFTA/USMCA side agreements
US and EU have more environmental provisions in their trade agreements than other regions.

Factors affecting BTA success and failure

Whether there is a direct sanctioning mechanism
Domestic political pressure
North-South divide
    Core-periphery structure of global economy
    Dependency trade relationships

International environmental agreements

Examples—UN Framework Convention on Climate Change (UNFCC), Kyoto Protocol, Paris Agreement, Convention on International Trade in Endangered Species (CITES), Montreal Protocol

Main functions
Standards and coordination
Information and monitoring
Reduce transaction costs
Maintains reputation

International climate negotiations and the regime complex

Increasingly multilevel governance (regional, national, subnational)
Expanded scope from GHG emissions to biodiversity, ocean and water heath
Climate finance mechanisms
Increasing non-state actor engagement (MNCs, civil society)

Part 4. Future challenges

Technology and governance

Increasingly intertwined
Digital technologies reliance on energy infrastructure often in concentrated hands
Strategic competition for critical minerals and green technology

Culture and subjectivity

Cultural identities connected to industries, jobs, resources, environment

Environmental justice and distributional conflicts

North/South distributional conflicts including responsibility for historical emissions
Climate finance shortfalls
Technology transfers
Climate migration
Human rights considerations

Public vs. private sector roles in decarbonisation

Scale of financing and investment necessitates public involvement
Government policies and regulation

Public carbon market creation and regulation
Redistribution of capital and labour assets
Social impact mediation
Areas for collaboration in implementation

This week's motivating questions

1. What is the political economy of **energy** and the **environment**?
2. How do IPE dynamics shape energy and environmental **transitions**?
3. What are the IPE drivers for multilateral **environmental regimes**?

Important terms (in no particular order)

Week 10		
Transboundary	International environmental agreement	Ozone layer depletion
Negative externalities	Distributional conflict	Montreal Protocol
Tragedy of the commons	Noncompliance	Deforestation
Free riding	Energy sector	Land degradation
Biodiversity loss	Negative financial flows	Energy security
Turnover cycle	Regulatory arbitrage	Resource nationalism
Market concentration	Carbon tax	Carbon tariff
Supply chain vulnerability	Carbon market	Non-derogation