

# Cooperation & Climate Change

This week's readings:

- Hardin's "The Tragedy of the Commons",
  - Egan and Mullin's review of US public opinion on climate change, and the accompanying slides.
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## Big questions:

- Despite a broad scientific consensus on the causes and consequences of climate change, the international community has struggled to implement comprehensive solutions.
- What explains the difficulties in achieving effective climate cooperation?

## Climate Change: A Global Collective Action Problem

The problem of climate change can be understood as a **tragedy of the commons**. As Hardin (1968) argues, in a shared resource system, individuals acting rationally in their self-interest will deplete the resource, even if it harms everyone in the long run. In the context of climate change, the atmosphere is a shared global commons, and individual countries, acting in their perceived national interest, may continue to emit greenhouse gases, leading to collective harm.

- **Rational, self-interested decisions of countries can worsen the circumstances of the international community.**
- Each country individually benefits from burning fossil fuels to run its economy, while the benefits of tackling climate change are shared globally.
- Reducing greenhouse gas emissions is a classic example where individual actors and states have little incentive to act alone.

This collective action problem is exacerbated by several factors:

- **Time horizons:** Election cycles are often shorter than the relevant policymaking timelines needed to address climate change effectively. The costs of action are often immediate, while the most severe consequences are in the future.
- **Uncertainty and invisibility:** The abstract and scientific nature of climate change, coupled with the difficulty in directly attributing specific events to it, can lower its salience for the public and policymakers.
- **Low salience:** Even among those who accept the science, climate change often ranks lower than other national priorities.

## Distributional Theories of Climate Cooperation

Distributional theories in IR emphasize how the allocation of costs and benefits among actors shapes the prospects for cooperation. In the context of climate change, these theories highlight the inherent **distributional conflicts**:

- **Unevenly distributed costs and benefits:** The impacts of climate change are not uniform across the globe, with some regions being more vulnerable than others. Similarly, the costs of decarbonization and adaptation can fall disproportionately on different countries and sectors.
- **North-South divide:** (Historical responsibility). Developing countries often argue that industrialized nations bear a greater historical responsibility for greenhouse gas emissions and should therefore take on more significant mitigation burdens. They also often have fewer resources to adapt to climate impacts.
- **Domestic distributional conflicts:** Within countries, the transition to a low-carbon economy creates winners and losers. Owners of **climate-forcing assets (e.g., fossil fuel industries)** may obstruct mitigation efforts, while those with **climate-vulnerable assets (e.g., coastal communities, agriculture)** may favor action.
- **Compensation:** Gaikwad, Genovese, and Tingley (2022) suggest the need to compensate the losers of decarbonization to facilitate policy action, as climate-forcing asset holders may seek compensation for decarbonization efforts.

These distributional issues create significant hurdles for international climate agreements, as states prioritize their national interests and are wary of bearing disproportionate costs. Realist perspectives in IR, which emphasize the anarchic nature of the international system and the primacy of state power and self-interest, would predict that achieving substantial cooperation on an issue with such high distributional stakes will be exceedingly difficult.

## Institutional Theories of Climate Cooperation

Institutional theories in IR argue that international institutions, rules, and norms can facilitate cooperation even in the presence of distributional challenges and anarchy. In this view, climate cooperation is like the classic prisoner's dilemma. *People don't want to take action because they worry about other people cheating*

Institutionalists will point toward other successes: Previous wins: CFCs ("ozone layer"); acid rain mitigation; Kyoto protocol

### Institutional features of climate cooperation

- We'll draw upon Keohanian institutionalism to think about this
- **Shadow of the future:** How can we convince cheaters that they will be punished? (Current gains are not worth future costs)
- **Monitoring:** How can we convince that cheating will not be unnoticed?
- **Credible commitment:** How can we convince that cheating will certainly be punished, even if it hurts us too?

These theories highlight how institutions can:

- **Reduce transaction costs:** Institutions provide frameworks for negotiation and agreement, making it easier for states to interact and coordinate their actions.

- **Promote information sharing and transparency:** Mechanisms for monitoring and reporting emissions, as seen in the Paris Agreement, can increase transparency and build trust among states.
- **Establish norms and expectations:** International agreements and the repeated interactions they foster can create norms of behavior and expectations of cooperation. The “name-and-shame” enforcement mechanism of the Paris Agreement relies on this.
- **Facilitate reciprocity and build a “shadow of the future”:** Institutions can create expectations of long-term interaction, making states more likely to cooperate today in exchange for future benefits and to avoid retaliation for non-cooperation.
- **Provide mechanisms for dispute resolution:** Although less developed in the climate regime, such mechanisms in other international institutions can help manage conflicts arising from distributional concerns.
- **Foster polycentric governance:** Ostrom’s work on governing the commons suggests that overlapping, local governance structures, community monitoring, and social norms can contribute to effective resource management.

Liberal institutionalist theories in IR are particularly relevant here, as they emphasize the role of international institutions in enabling cooperation despite anarchy. The Paris Agreement can be seen as an attempt to build an institutional framework that accommodates diverse national circumstances and distributional concerns while still promoting collective action.

However, many have called into question the appropriateness of the institutionalist logic here: For example, Ozone layer action might have been possible because it was (1) low cost and easy to implement and (2) benefited the incumbent businesses.

For companies with lower adjustment costs relative to their competitors, it is useful to lobby for additional regulation.

## Conclusions

Understanding climate change cooperation requires considering both distributional and institutional perspectives.

### **Note that these theories are in conflict!**

- Distributional conflicts over the costs and benefits of climate action are big challenges.
- However, institutional theories suggest that carefully designed international institutions can play a crucial role in mitigating these challenges by fostering transparency, building norms, facilitating reciprocity, and reducing the costs of cooperation.
- The ongoing evolution of the international climate regime, including agreements like the Paris Agreement, reflects the interplay between these distributional realities and institutional efforts to promote collective action on this critical global issue.
- Scholars of public opinion also suggest that focusing on the tangible consequences of climate change and adaptation, rather than just mitigation of an abstract threat, may offer more promising avenues for building policy support.