

Effectiveness of International Environmental Agreements

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Background

History

- International Environmental regime began at the 1972 Stockholm Conference (creation of the UNEP)¹
- Currently an estimated 3,800 International Environmental Agreements (IEAs) are in existence²

Problem

- GHG concentration now exceeds 420ppm (safe operating level is 350ppm)³
- Current NDCs lead to a projected 2.7°C warming by 2050³

Research Question/Objectives

Research Question

What features and/or conditions of an IEA make one agreement more effective than another?

Objectives

1. Summarize available policy design options
2. Survey and synthesize indicators of effective IEAs
3. Categorize the key design features and effectiveness indicators of the UNFCCC and the Montreal Protocol
4. Report on the lessons drawn from the two IEAs

Methodology – Literature Review

Literature Review

1. Policy Design Characteristics

- University of Oregon's IEA Database (IEADB) served as the basis for possible design options
- The IEADB identified 71 separate design characteristics²
- Each IEADB characteristic was categorized into either **substantive** or **procedural** elements⁴
- These characteristics were thematically sorted into the 11 possible design options used to code the two selected IEAs

2. Effectiveness Indicators

- A comprehensive secondary literature was conducted which led to the categorization of the available findings/recommendations into common themes
- 6 key themes were identified and used to code and analyze the two selected IEAs

Lessons

Integrated Approach

- IEAs must closely engage and involve:
 - Industry⁵
 - Public⁶
 - Scientific Experts⁷
 - International community⁷
- The Montreal Protocol's success was largely tied to its intentional engagement with industry and the public⁵

Principled Agreements

- IEAs must be rooted in principles of environmental law such as:
 - Precautionary Principle⁸
 - Act before certainty if risks are high
 - Common but differentiated responsibilities⁹
 - Encourage engagement through targeted financial and technological supports⁵

Specificity & Disaggregation

- Target specific compounds and sectors rather than an entire issue at once¹⁰
- A main application was the Montreal Protocol's use of the "Start and Strengthen" approach
 - E.g., The Montreal Protocol began by targeting a 50% "phasedown" rather than an immediate "phaseout" of targeted ODS¹¹

Recommendations for Future Agreements

These three key lessons were contrasted against the structure and performance of the 2015 Paris Agreement, which led to two recommendations that were not implemented in the Paris Agreement and should be considered for future climate agreements

Disaggregation

- The climate issue should be separated into specific GHGs and sectors to make solutions more manageable and develop trust for future, more ambitious agreements¹²
- Rather than targeting the most challenging and prominent GHG (CO₂), future emission-specific protocols should first focus on compounds such as methane, black carbon, and soot^{13, 14}

Progress Over Perfection

- IEAs do not need to originate in their desired end-state¹⁵
- A precautionary, start and strengthen approach enables the necessary institutions to be created while also building trust and support amongst industry, public, and government stakeholders¹⁵
- Future climate agreements will need to be enacted without 100% scientific certainty to have any hope of abating the dire environmental consequences approaching⁷

Methodology - Analysis

Analysis

- The UNFCCC and the Montreal Protocol were coded using the framework of analysis derived from the two sections of the literature review (below)
- Coding was administered through an initial review of the primary agreements as well as a comprehensive review of the secondary literature
- Once coded, the two agreements were compared to draw key differences and success factors to be applied within the lessons and recommendations

Policy Design Options

1. Administration (E.g., Secretariat)
2. Authority (E.g., Rulemaking)
3. Scope (E.g., Level of specificity)
4. Principles (E.g., CBDR)
5. Membership (E.g., Eligibility)
6. Enforcement/Cooperation (E.g., Support measures)
7. Agreement Terms (E.g., Duration)
8. Mechanisms (E.g., Expert review)
9. Finances (E.g., Fund management)
10. Flexibility (E.g., Exceptions)
11. Compliance (E.g., Monitoring)

Effectiveness Indicators

1. Efficacy
2. Behaviour Change
3. Legal Compliance
4. Problem Solving Capacity
5. Legitimacy
6. Stability/Longevity

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