Who Ratifies Environmental Treaties and Why?
A World-System Analysis of Participation in 22 Treaties by 192 Nations

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3 Mainstream IR Explanations

- **Realism** - Zero-Sum power politics. Rich, powerful nations will strong-arm weaker nations to sign the treaties they prefer. Coerced cooperation.
  - Prediction: Rich nations will coerce LDCs of global env. significance

- **Constructivism** - Norm-based. A global environmental “culture” exists and permeates rich and poor nations, shaping their preferences.
  - Prediction: National memberships in International Env. NGOs will correlate with env. treaty ratification

- **Rational Choice Institutionalism** - Interest-based. States voluntarily cooperate with each other to solve collective action problems. Creating institutions reduces transaction costs, risk, and uncertainty.
  - Prediction: Only “credible” (i.e. willing and able) countries will enter into treaties for fear of sanctions
Beyond IR to WST

• But all of these theories beg a prior question. Having identified the proximate causes of env. treaty ratification, what are the deeper social determinants?
• We propose World-System Theory as an alternative/supplement
• WST rests on four theoretical pillars
  – Structuralism: Development and underdevelopment as two sides of the same coin. Room for upward mobility, but structure largely unchanged. Commodity Trap. Disarticulated economies. Kicking away the ladder.
  – Historicism: Colonialism left many developing countries with highly vulnerable natural environments, feeble domestic institutions, and weak civil societies
  – Materialism: Economy rooted in subsistence and profit-seeking. Savagely unequal pattern of extraction, consumption, and production
  – Globalism: Must look at the World-System as a whole. National weakness may be a product of activity in distant lands. Consumption in one place, for example, may have huge implications elsewhere. Wheels within Wheels.
Operationalizing our Predictions

Indicators:
1. Participation in Environmental Treaties
2. Kyoto commitments for reductions
3. Emissions reductions since 1990 Kyoto baseline
4. Proxy-Reducing Environmental Stress ESI

Outside Pressure

Indicators:
1. Natural Capital
2. Size of country
3. Population

Geographical Vulnerability

Indicators:
1. Population <100km from coast/river
2. Elevation >sea level
3. Latitude/tropics
4. Isolation/Island nation
5. Drought-prone-ness
6. Mean 21C climate change

Governance

Indicators:
1. Environmental Policy Index
2. Repressiveness
3. Corruption Index
4. Political Stability
5. Gov’t Effectiveness
6. Limits to Executive Authority
7. Bureaucratic Quality
8. Contract Enforcement
9. Military spending
10. Rule of law
11. Black Market

Action to Address Climate Change

Indicators:
1. Environmental Policy Index
2. Repressiveness
3. Corruption Index
4. Political Stability
5. Gov’t Effectiveness
6. Limits to Executive Authority
7. Bureaucratic Quality
8. Contract Enforcement
9. Military spending
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Insertion in the World Economy

Indicators:
1. Export Dependence
2. Sectoral/export concentration
3. Raw Materials Exports
4. High Tech/exports
5. Import Dependence
6. Terms of trade
7. Trade with OECD
8. Debt/GDP or debt service(exports
9. Foreign Direct Investment/GDP
10. AID/GDP
11. Colonial legacy

Environmentalist Leverage

Indicators:
1. Civil society density- NGOs
2. Environmental NGOs
3. Executive and Legislative Electoral Competitiveness
4. Labor Organization-Unions
5. Industrial lobbying strength
What Do Realism, Constructivism, Rational Choice Institutionalism and WST Predict?

Disadvantaged Insertion in the World Economy: Narrow Export Base

Environmental Vulnerability: Ecosystem Wellbeing Index (high=poor)

Civil Society Pressure: Total NGOs 2000

Participation in Environmental Treaties

Domestic Institutional Structures Voice and Accountability

Outside Pressure: Natural Capital Index

Outside Pressure: International Environmental NGOs

Environmental Vulnerability: Ecosystem Wellbeing Index (high=poor)

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Participation in Environmental Treaties

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Outside Pressure: Natural Capital Index

Outside Pressure: International Environmental NGOs
### Indirect Effects of W-S Insertion on Environmental Treaty Participation

<table>
<thead>
<tr>
<th>Intervening Variable(s)</th>
<th>Path Coefficients</th>
<th>Indirect Effects</th>
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</thead>
<tbody>
<tr>
<td>Ecosystem Wellbeing Index</td>
<td>(.461 x -.042)</td>
<td>-.0193</td>
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<tr>
<td>Civil Society Pressure</td>
<td>(-.633 x .980)</td>
<td>-.6203</td>
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<td>Domestic Institutions and NGOs</td>
<td>(-.543 x .300 x .980)</td>
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<td>Domestic Institutions</td>
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<td>Direct Effect</td>
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<td>Total Effects (Direct + Indirect)</td>
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<td>-.5910</td>
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</tbody>
</table>
Summary of Main Points

• Many “Actions” could be studied; we chose treaties.
• Realism fails.
• Env. treaty ratification is well explained by one’s position in world-economy: the strength of civil society, domestic institutions, and environmental conditions.
• Constructivism and Rational Choice Institutionalism are also supported, but ignore deeper social determinants
• The Kyoto model, however, is weak. Why?
  – Weak dependent variable (little variation, only a dummy)
  – Since climate is an existential issue for many poor nations, they may be more willing to sign on.
  – Kyoto is an iterative process and the terms of Southern participation have not yet been specified. Therefore, Kyoto may be relatively “cheap” for LDCs (at least at this point)