Toward a Systemic Approach to Climate Adaptation Finance

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Research Question: How Does Considering Transnational Climate Impacts Complicate the Policy Approach to Adaptation Finance?
Key Messages

- Including Transnational Climate Impacts in the way we conceive of climate risks complicates our view of adaptation finance significantly
- On the allocation of finance, new actors emerge as important potential recipients of finance, including Latin American countries, many in the Middle East, and some highly-developed agricultural incumbents
- On the provision of finance, this perspective re-asserts age old issues regarding the rationale for participating in the international aid architecture
- Core systemic actors may have a central role to play in grappling with these concerns by working to reduce risk at the systems level; taking a systemic approach to climate adaptation finance
Outline

What’s the plan?
Outline

• Setting the Stage: Key Debates in the Climate Finance Arena
• Increasing Complexity: Recognizing Transnational Climate Risks
• A Thought Experiment: Agricultural Transnational Climate Risk Flows
• The Way Forward? Implications for Research and Policy
Setting the Stage

Key Debates in the Climate Finance Arena
Key Debates in the Climate Finance Arena

• It’s all about the 100B USD Goal
  • New and Additional
  • Balanced between Adaptation and Mitigation
  • Scaling up to 100B USD by 2020
  • Aim to address “the priorities and needs of developing country Parties, especially those that are particularly vulnerable to climate change”

• Two Key Questions:
  • How do we raise further funding?
  • How do we allocate the finance that we have?
How Have these Debates Been Settled?

- How do we raise further funding?
  - Commitments extended through 2025, with negotiations ongoing for a new target afterward
  - Increasing interest in the involvement of private sector actors
- How do we allocate the finance that we have?
  - Focus on certain groups of countries: LDCs, SIDS, Africa
Assumption 1: The Primary Driver for Adaptation Finance Provision is Benevolence
Assumption 2: Risks Exist Contained Within National Boundaries
Increasing Complexity

Recognizing Transnational Climate Risks
The Transnational Climate Impacts Index

  - Some climate risks are transnational
  - Complicates the way we understand risk exposure
Transnational Climate Impact Pathways

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Financing Transnational Climate Risk Reduction

Consuming Country A
High direct risk

Consuming Country B
High transnational risks

Producing Country 1
High direct risk & high exports

Producing Country 2
Low direct risks & high export

ND-GAIN Index

TCI Index

Core Systemic Actor

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A Thought Experiment

Agricultural Transnational Climate Risk Flows
Assessing Agricultural Transnational Climate Risk Flows

- Combined several climate impact models with agricultural trade data and food security indicators for four key crops
  - Crops: Maize, Wheat, Rice, Soy
  - Models: EPIC, GEPIIC, LPJmL, pDSSAT, PEGASUS
  - Comparison: 1980-2010 to 2070-2099
  - Scenario: RCP8.5
  - Trade Data: SEI’s IOTA Model

- Limitations:
  - Trade information not dynamic
  - Climate impact models do not include extreme weather events or other shocks
Research Approach

Agricultural Commodity Flow

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<th>Producing Countries</th>
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Projected Climate Impact

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Import Flow Dependency

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### Initial Results

#### Pairwise Tables Identifying Key Linkages Across Major Cereal Crops

**Consuming Countries**

- Brazil maize to Bolivia
- Hungary maize to Estonia
- Nigeria maize to Morocco
- Senegal rice to Tunisia
- Thailand rice to Singapore
- Venezuela rice to Uruguay
- Brazil wheat to Bolivia
- Morocco wheat to Qatar
- Ethiopia wheat to Cameroon
- Brazilian soy

**Particularly Risky Flows:**
- Brazil maize to Bolivia
- Hungary maize to Estonia
- Nigeria maize to Morocco
- Senegal rice to Tunisia
- Thailand rice to Singapore
- Venezuela rice to Uruguay
- Brazil wheat to Bolivia
- Morocco wheat to Qatar
- Ethiopia wheat to Cameroon
- Brazilian soy

#### Identification of Critical Actors for Global Food Security

- **Country of highest risk export:** Brazil
- **Agricultural Incumbents with most to gain:**
  - Russia
  - South Africa
  - Chile
  - Australia
  - Argentina
  - USA
  - China

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Composite Risk Exporters
## For Sweden (as an Importer)

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The Way Forward?

Implications for Research and Policy
Evolving Decision Spaces for Climate Finance
The Ethics of International Aid

What should I do?

What is good? (Consequentialism)

Good for who?

Good for myself (Individualism)

Good for others (Altruism)

Good for everyone (Cosmopolitanism, Collectivism)

What is right? (Deontology)

What is included in good & bad?

- Resources/Influence
- Strategic Partnerships
- Reduce Own Risks
- Greatest Need
- Most Effective Outcomes
- Retain Buy-In for the UNFCCC
- Build Global Resilience
- Direct Risks/Impacts
- Direct & Indirect Risks/Impacts

- Contractualism
- Historical Reparations
- International Equity
A Role for Systemic Actors

• Implementing Actors
  • Core Systemic Actors well-placed to address these risks could propose projects that cut across national scales
  • Regional Actors: Secretariat of the Pacific Regional Environment Programme
  • Global Actors: Food and Agriculture Organization, World Food Programme

• Financing Actors
  • Core Systemic Actors can finance and support cooperative action
  • Special funding windows for transnational risks – potential transformative change?
  • Financing Actors: Green Climate Fund, Adaptation Fund, Sida
Thank You!

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