MOTIVATION AND RESEARCH QUESTIONS
BACKGROUND

- Development programs have traditionally been focused on increasing the productivity of small-scale producers (SSPs) and transforming rural spaces.

- SSP who dominate the agricultural sector in most low- and middle-income countries are increasingly affected by changing climate.

- While mitigation strategies are being developed and implemented, it has become clear locally that there is an urgency to improve the adaptive capacity of SSP.

- The 26th UN Climate Change Conference of the Parties stressed the critical role of mobilizing funding from public, private, and alternative sources to address climate change in LMICs.
FLOW OF FUNDING TO CLIMATE CHANGE

Bilateral donors  Multilateral donors

ODA

OECD Data

Domestic

Government  Private sector

Foreign Direct Investment

Climate-related development finance

Climate mitigation  Climate adaptation

Evans School of Public Policy & Governance
University of Washington
FOCUS ON ODA AND SOVEREIGN BORROWING

ODA
- Bilateral donors
- Multilateral donors

Domestic
- Government
- Private sector

Foreign Direct Investment (FDI)

Climate-related development finance
- Climate mitigation
- Climate adaptation

Motivation
Data & Methodology
Findings
Discussion
RESEARCH QUESTIONS

1. What proportion of agriculture-related lending has a climate component?

2. Which countries are borrowing most for climate-related agricultural projects?

3. Is climate-related agricultural borrowing correlated with a country’s climate risk?
WHY MULTILATERAL FINANCING

- IFIs fund approximately 1/3 of all ODA, which constituted up to 1/3 of GNI in some sub-Saharan African countries in 2019.
- The 3 IFIs in the EPAR dataset constitute 87% of multilateral funding to SSA.
- Multilateral investment shows progress toward climate change adaptation and mitigation.
DATA & METHODOLOGY
IFI DATABASE

- Active or approved agriculture-related financing projects as of 2022
- 3 specific multilaterals (World Bank, AfDB, and IFAD)
COMPARISON WITH OECD

EPAR IFI dataset

• Agriculture-related financing projects as of 2022

• 3 specific multilaterals (World Bank, AfDB, and IFAD)

• Climate projects identified by searching project data for climate keywords

• Categorization of rural agricultural projects (and subset of on farm projects)

OECD ODA dataset

• Climate-related ODA projects, 2000-2019

• Multilaterals, bilateral, and private donors.

• Climate projects identified/reported by donors according to Rio Markers or “climate component methodology”
ODA CONTEXT
CLIMATE-RELATED FUNDING TO SUB-SAHARAN AFRICA, 2000-2019 (2019 USD)

- Increase in climate-related financing from $3.4 billion in 2010 to $15 billion in 2019.
- Comparable investments in mitigation and adaptation.
- 2019: 52% of climate financing to SSA from multilaterals, 47% from bilateral, 1% from private donors. 30% from World Bank and 14% from AfDB.
CLIMATE-RELATED AGRICULTURE FUNDING TO SUB-SAHARIAN AFRICA, 2000-2019 (2019 USD)

- Increase in climate-related agricultural financing from $709 million in 2010 to ~$3 billion in 2019

- Growth driven by climate adaptation projects: 70% of climate-related agricultural ODA in 2019
Characterization of Multilateral Financing Projects

Universe of Multilateral Projects (N=1,846, $26.5B)

- Rural Agricultural Economies (N=505, $6.52B)
  - On Farm (N=388, $4.67B)
  - Climate-related (N=203, $1.97B)
1. What proportion of agriculture-related lending has a climate component?

<table>
<thead>
<tr>
<th>Multilateral</th>
<th>Climate-Related Rural Agricultural Projects</th>
<th>Total Rural Agricultural Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank</td>
<td>N = 32</td>
<td>N = 259 100%</td>
</tr>
<tr>
<td></td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>AfDB</td>
<td>N = 50</td>
<td>N = 140 100%</td>
</tr>
<tr>
<td></td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>IFAD</td>
<td>N = 7</td>
<td>N = 106 100%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N = 89</td>
<td>N = 505 100%</td>
</tr>
<tr>
<td></td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>
1. What proportion of agriculture-related lending has a climate component?

<table>
<thead>
<tr>
<th>Multilateral</th>
<th>Climate-Related On Farm Projects</th>
<th>Total On Farm Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank</td>
<td>N = 23 13%</td>
<td>N = 177 100%</td>
</tr>
<tr>
<td>AfDB</td>
<td>N = 50 36%</td>
<td>N = 140 100%</td>
</tr>
<tr>
<td>IFAD</td>
<td>N = 7 10%</td>
<td>N = 71 100%</td>
</tr>
<tr>
<td>Total</td>
<td>N = 80 21%</td>
<td>N = 388 100%</td>
</tr>
</tbody>
</table>
1. What proportion of agriculture-related lending has a climate component?

<table>
<thead>
<tr>
<th>Multilateral</th>
<th>Rural Ag-Related Climate Projects</th>
<th>Total Climate Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank</td>
<td>N = 32</td>
<td>N = 58</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>100%</td>
</tr>
<tr>
<td>AfDB</td>
<td>N = 50</td>
<td>N = 138</td>
</tr>
<tr>
<td></td>
<td>36%</td>
<td>100%</td>
</tr>
<tr>
<td>IFAD</td>
<td>N = 7</td>
<td>N = 7</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>N = 89</td>
<td>N = 203</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>100%</td>
</tr>
</tbody>
</table>
2. Which countries are borrowing most for climate-related agricultural projects?
2. Which countries are borrowing most for climate-related agricultural projects?
3. Is climate-related agricultural borrowing correlated with a country’s climate risk?

- No statistically significant relationship between a country’s Climate Risk Index and its proportion of annual rural/agricultural borrowing that is focused on climate.

- No predictive relationship between CRI and the proportion of annualized on-farm borrowing for climate-related projects.
DISCUSSION

- IFIs currently devote ~13% of SSA rural agricultural funding to climate.
- Climate risk may be a driver of funding along with many other potential factors.
CONCLUDING REMARKS & FUTURE WORK

- Distinguish between and within climate adaptation and mitigation projects
- Merge agricultural project database with OECD climate project database
- Add bilateral funding of SSA agricultural projects and additional multilateral funding sources
- Test associations of agricultural borrowing against additional measures of climate risk and other hypothesized drivers such as FDI, public finance systems, etc.
- Distinguish across financial instruments, degree of concessionality etc.
Thank You.

Didier Alia, C. Leigh Anderson, Kelsey Figone, Basil Hariri, Helen Ippolito, Federico Trindade

EPAR: Evans School Policy Analysis and Research group at the Daniel J. Evans School of Public Policy and Governance, University of Washington
2. Which countries are borrowing most for climate-related agricultural projects?
2. Which countries are borrowing most for climate-related agricultural projects?
GLOBAL CLIMATE-RELATED FUNDING, 2000-2019 (2019 USD)

ODA DATA FROM OECD

- Climate adaptation
- Climate mitigation
- Overlapping commitments
- Total