Discussion of Ke (2025)

"Does Climate Change Hinder Women's Financial Inclusion? Evidence from Rural India"

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Summary of Paper I

- **Research Question:**
  - Impact of climate changes on gender gaps in financial inclusion?
    - Significant gender gap in financial inclusion: majority of those unbanked are women
    - Climate change: fast-growing threats to human well-being (Carleton et al., 2022; WB, 2024)
- **Setting & Approach:**
  - Data: National Family Health Survey in India (2015–2016 and 2019–2021 waves)
    - Sample: 142,682 women aged 18+ living in rural areas
    - *Financial Inclusion*: whether the respondent has her own bank account
  - *Drought* measured by Standardized Precipitation Evapotranspiration Index (Vicente-Serrano et al., 2010)
    - 1.5 SD from the long-term average considering both precipitation and evapotranspiration
  - Empirical specification:

$$\textit{Financial Inclusion}_{i,g,t+1} = \beta \cdot \text{Drought}_{g,t} + \theta_t + \gamma_g + \eta_a + \varepsilon_{i,a,g,t}$$

Summary of Paper II

- **Key Findings:**
  1. Women exposed to a drought $\rightarrow$ 4.2 pp lower likelihood of owning a bank account
     - Magnitude comparable to a loss of 2.3 years of education
  2. Results are robust to:
     - controls for COVID-19 lockdown
     - alternative drought definitions
     - subsamples of non-migrants
     - supply-side effects
  3. Mechanisms:
     i. *Income effect*: Droughts reduce household income $\rightarrow$ lower financial access for women
     ii. *Health effect*: Droughts increase illness/hospitalization $\rightarrow$ lower financial access for women

- **Contribution:**
  - Causal evidence linking climate shocks to gender gaps in financial inclusion
  - Offers insight into mechanisms: both income loss and adverse health shocks

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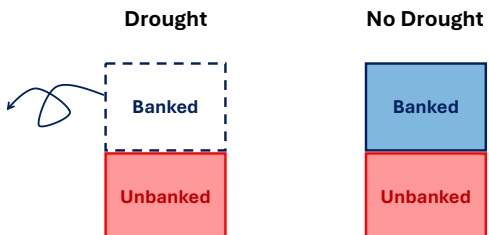

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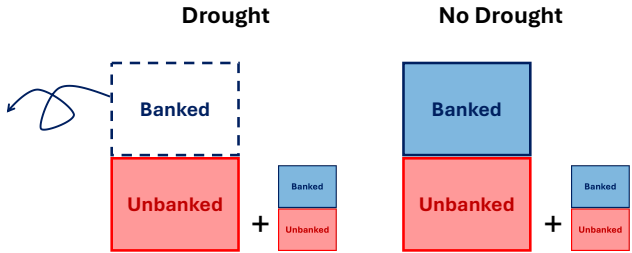

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- **Suggestion:** More direct evidence that out-migration after droughts is limited
  - E.g., Indian Census data to show no significant (post-drought) changes in:
    - Local population size / number of households
    - Vacancy rates

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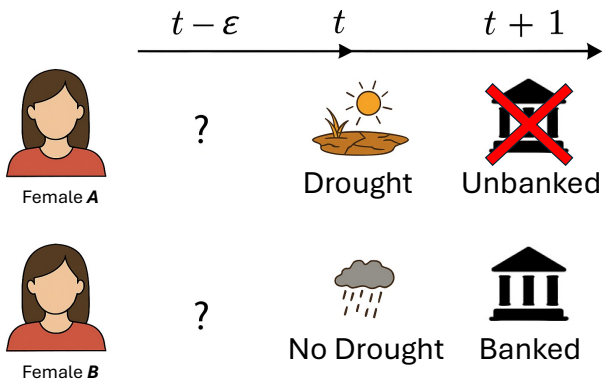

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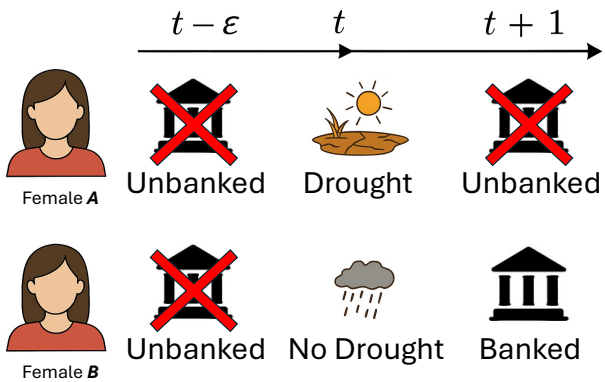

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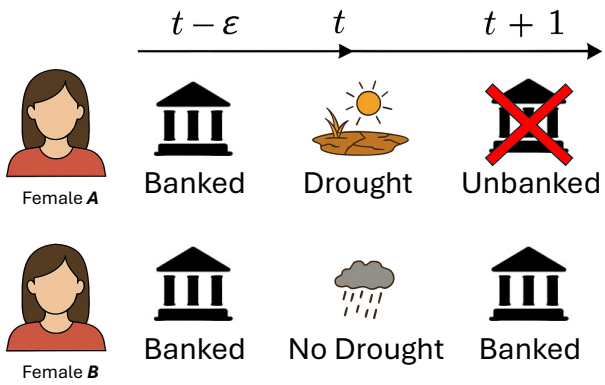
- Or, it could actually be..



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- The implications of the findings may vary depending on women's banking status prior to the drought:
  - (i) If women were unbanked before, droughts may *passively* hinder new account openings
  - (ii) If women already held bank accounts, droughts may *actively* lead to account closures
- Less clear how income & health effects could drive the results if (ii) is true

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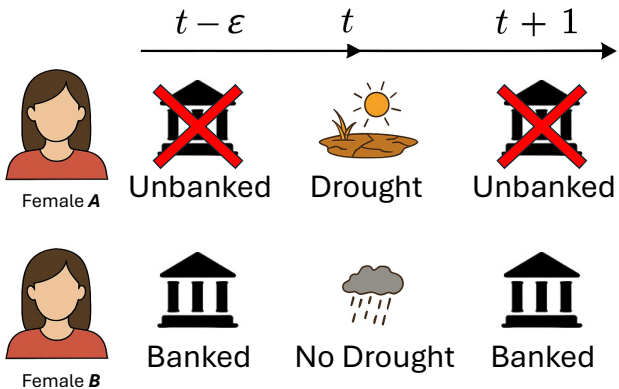

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- If this is the case, the findings may instead reflect:
  - (iii) Households with unbanked female members are disproportionately located in areas more prone to drought
  - $\Rightarrow$ A case of environmental injustice:
    - Climate risks are disproportionately borne by those unable/unwilling to relocate (e.g., Kleemans, 2015)

- **Suggestion:** Consider an empirical strategy to distinguish between mechanisms (i), (ii), and (iii)
  1. Grid-level regression, such as:

$$\Delta \textit{Financial Inclusion}_{g,15\to19} = \beta \cdot \textit{Drought}_{g,15-19} + \text{Controls}_g + \varepsilon_g$$

  2. Check the sign of $\Delta \textit{Financial Inclusion}_{g,15\to19}$ for grids w/ $\textit{Drought}_{g,15-19} = 1$
  3. Run individual-level regressions directly controlling for the share of unbanked women in grid *g* in the 2015–2016 cohort

Point 3. What Does Females Being Unbanked Mean?

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- Suppose the concerns raised in Points 1 and 2 are fully addressed
- There remains an important conceptual question: what does it actually mean for a woman to be unbanked?
- The paper opens with the statement:

  "*Having a bank account is a first step toward broader financial inclusion.*"

  Agreed—*but only if* individuals has access to and control over their own accounts
- Consider my own case: I am on an F1 visa, and my wife is on an F2 visa
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  - All financial accounts (bank, credit, etc.) are under my name
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- **Suggestion:** Clarify what specific disadvantages arise for not having own accounts
  (a) *Divorce:* Women without independent accounts may be locked in harmful marriages
  (b) *Labor participation:* Inability to participate in labor market may reduce utility

Final Thoughts

- Important & timely paper that bridges climate risk, gender inequality, and financial inclusion
- Thought-provoking findings:
  - (i) Droughts may hinder from reducing gender gaps
  - (ii) Drought may increase gender gaps
  - (iii) HHs w/ limited financial access may be concentrated in drought-prone areas
  - (iv) HHs w/ sufficient liquid assets may be more likely to out-migrate after droughts
    - (iii) and (iv) are more relevant to environmental injustice issues
- **Excited to see where the author take this next!**