

Climate Shocks and Labor Reallocation: Evidence on Transitions out of Agriculture

Convenors:

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Topic:

Climate change has significantly disrupted labor markets over the past decade, reshaping local labor demand and factor productivity (Abou-Ali et al., 2022; Shayegh & Dasgupta, 2024). Agriculture is among the most climate-exposed sectors, and has experienced particularly sharp adjustments, as extreme weather and environmental degradation alter production cycles, wages, and employment structures. While some jobs have disappeared due to climate shocks, the green transition is simultaneously creating opportunities in new sectors.

Adjustment costs, however, can be substantial when the skills required for expanding jobs do not align with those from shrinking ones, with evidence showing that skill specificity is tied more to occupations than to firms (Vona et al., 2018, 2019; Poletaev & Robinson, 2008; Kambourov & Manovskii, 2009; Gathmann & Schönberg, 2010). These dynamics risk deepening informality and instability, particularly in rural areas already struggling with high youth and women's underemployment, displacement, and rapid technological change. The impacts are unlikely to be evenly distributed, disproportionately affecting different regions, and groups, and in many cases driving jobs into informality, increasing job insecurity, or demanding entirely new skill sets, especially in the hardest-hit regions. This working group will engage with several of the conference themes, including:

- Decent work in the agri-food sector: assessing how climate shocks reshape agricultural labor markets and working conditions, pushing workers to exit the sector or take up insecure alternatives
- Knowledge, skills, and education in agriculture: understanding skill mismatches in climate transitions and how to address them.
- Changing work dynamics through digitalization and climate change: analyzing how technological and environmental disruptions interact in shaping employment.
- Agricultural workforce development systems: exploring policy and institutional responses to facilitate worker transitions and resilience.

Aims:

The working group aims to examine the effects of climate shocks and the green transition on labor market dynamics of agricultural and rural labor. Specifically, it will:

- Share recent empirical evidence and case studies on how climate shocks affect employment, informality, and decent work outcomes across regions and demographic groups.
- Explore the adjustment costs of labor reallocation, highlighting the role of occupational skill specificity and mismatches, and its potential impact on welfare and labor mobility.
- Discuss the implications of climate- and technology-driven changes for agricultural workforce development systems, including training, reskilling, and education.

- Identify policy solutions that can reduce vulnerability, support decent work, and ensure inclusive transitions for youth, women, and marginalized groups in high-exposure regions.
- Foster collaboration among researchers, practitioners, and policymakers, with the goal of generating joint publications and building networks for future comparative research.

Format:

The working group will be organized into two 1.5-hour sessions. Each session will begin with short presentations (10–12 minutes each) by researchers and practitioners presenting new evidence, followed by a moderated discussion. The first session will focus on empirical findings and sector-specific experiences of climate shocks and labor market transitions out of agriculture. The second session will emphasize forward-looking solutions, including policies for agri-workforce development, digital innovation, and strategies to ensure decent work in the context of climate change.

The format is designed to balance knowledge-sharing with dialogue: presentations will be concise, leaving ample time for interactive debate and collective problem-solving. Discussions will explicitly connect findings to the broader conference themes, ensuring relevance and cross-learning across sectors and regions.