



Tropentag, September 20-22, 2023, hybrid conference
“Competing pathways for equitable food systems transformation:
Trade-offs and synergies”

Applying a social equity approach to transformative adaptation: Minimising trade-offs between environmental and socio-economic outcomes

ANA MARIA LOBOGUERRERO¹, JON HELLIN², SABRINA ROSE³

¹*The Alliance of Bioversity International and CIAT, Italy*

²*International Rice Research Institute, Sustainable Impact, Philippines*

³*The Alliance of Bioversity International and CIAT, Colombia*

Abstract

Droughts, erratic rainfall, floods and high temperatures threaten the livelihoods of millions of smallholder farmers. Significant effort has focused on climate risk management, including the promotion of climate-resilient agriculture, directed at particularly vulnerable people and areas. Innovative technological interventions are critical but the enabling social, institutional and governance environment drives the transformative process. Climate risk management may, however, result in trade-offs between environmental and socioeconomic outcomes. An example is ‘maladaptation’ whereby interventions (inadvertently) create, redistribute and/or reinforce inequality and vulnerability. Maladaptation is at odds with ‘leave no one behind’. This brings to the fore social equity that relates to responsibility for and distribution of climate impacts and policies across society, generations and genders, including in terms of who participates in and controls decision-making.

Adopting a social equity approach enables agricultural researchers to consider how social difference and associated inequalities, including gender, may shape vulnerability and may influence people’s access to innovations to build resilient and improved livelihoods. It, hence, contributes a deliberative transformation to just, equitable and resilient food systems. We illustrate this with examples from i) climate finance, ii) policy pathways and iii) climate information services. Farmer adoption of climate-resilient agriculture is stymied by risk and farmers’ risk aversion. We report on Risk-Contingent Credit (RCC), a linked financial product that embeds within its structure an insurance protection which, when triggered, offsets loan payments due to the lender. RCC mitigates drought-related agricultural risks and provides access to credit for smallholder farmers, requiring minimal collateral.

Policy pathways research combines future scenarios (based on integrated modelling of the agriculture sector) with expert input on relevant policy objectives. The latter is designed to ensure that key stakeholder groups, whose voices may not be readily heard in policy settings, are active participants in discussions around integrated modelling. Lastly, The Zambia Drought Management System (ZADMS) is a satellite-based online resource that provides farmers, extension workers, and agriculture and water resources authorities the information needed to forecast, monitor, and manage drought. It provides (sub)seasonal and seven-day weather forecasts; monitoring tools to indicate when drought is present; and district-level agricultural contingency plans.

Keywords: Climate change, gender, resilience, social equity, trade-offs