

Panel Session: Impact Assessment

Panel Chair: Nsah Mala

Participants: Thomas Hoyer & Gilbert Nsabimana, Lisa-Marie Schulte, Eva Boonaert, Alexandra Stankovich

Abstracts:

1. **Hoyer, T & Nsabimana, G.** *Agroforestry in Burundi – a realistic perspective for fair trade & organic farmers*

The successful implementation of 13.555 micro agroforestry systems in 20 cooperatives is for us the best strategy how very limited land resources (usually 0,5 hectare/family) can be used in a diversified and with it sustainable, profitable way. By minimizing the land used for coffee, but instead planting bananas, fruit trees, timber trees and shade trees 3 different positive impacts were reached by the implementation of our agroforestry project:

1. A strong contribution to increase of food security and increase of soil fertility by focusing on using land for planting in a diversified way fruits, vegetables and grains for self-consumption of the families.
2. An effective method of reforestation is not meant in forests but in small micro plots. There the planted trees bind CO₂, reduce soil erosion and provide a system of receiving sufficient firewood as well as timber for construction for the families – in a sustainable way.
3. By implementing good organic farming practices the coffee yields were more than doubled. Being sold to Fair Trade buyers and additionally harvesting other cash crops the farmers could visibly improve their income possibilities.

So for us this is fair trade at its best and a realistic perspective for many small-scale fair trade farmers – in Burundi and worldwide!

2. **Schulte, L.-A.** *Certifications and Sustainability Trade-offs: Empirical evidence from the Peruvian Mango Sector*

Certifications are increasingly promoted as instruments to improve farmer welfare and sustainability in agricultural value chains. However, empirical evidence on potential economic and environmental trade-offs remains limited, particularly for tropical fruit sectors that are highly exposed to climate change. Our study analyzes the determinants and impacts of Organic-only and combined Organic + Fairtrade certification on sustainable farm practices, crop diversification, water use, and revenues, using farm-level data from 290 mango farmers in Peru. To account for self-selection and unobserved heterogeneity in certification adoption, we apply a multinomial endogenous switching regression framework. Our results show that certification uptake is shaped by socio-economic, structural, and agro-climatic factors, including farmer age, land ownership, market information access, precipitation, and exposure to certified producer organizations. We also find that Organic certification significantly increases the intensity of sustainable farm practices and promotes water-saving behavior, while it does not have a statistically significant effect on revenues. The addition of Fairtrade certification, however, enhances revenues but is associated with economic–environmental trade-offs, as it reduces sustainable practice intensity relative to Organic certification alone. Our results also suggest that both certification strategies are associated with reduced crop diversification, suggesting increased specialization that may raise economic returns but reduce ecological

diversity. Finally, we find that both Organic only and Organic + Fairtrade certification significantly improve water cost efficiency relative to conventional production. Overall, our findings show that while certifications deliver clear benefits, combined certification schemes may entail important trade-offs between environmental and economic sustainability objectives.

3. **Boonaert, E.** *Certified and Stable? Price and Yield Volatility Under Voluntary Sustainability Standards in Peru*

Prior research analyzes the economic effects of Voluntary Sustainability Standards (VSS)—such as Fairtrade, Organic, and GlobalGAP—but little is known about the stability of these effects over time. Using a nationally representative farm survey of Peru (2015-2019) covering multiple VSS, commodities, and both family farms and agro-industry, this study analyzes whether VSS certification is associated with reduced inter-annual price and yield volatility. Applying pooled OLS, matching, and internal instruments, we find that certification is associated with 27% lower price volatility and 17% lower yield volatility, particularly benefiting family farms, translating into a 81% reduction in their net farm revenue volatility. Additionally, we identify substantial heterogeneity across VSS and commodities. The results highlight VSS' potential to enhance revenue stability, and recommendations for tailored certification designs and support for disadvantaged producers to enhance their potential.

4. **Stankovich, A.** *When fair trade generates meaningful social empowerment for the community: the case of the Peruvian cooperative Sol & Café*

Peru is known worldwide as a leading producer of certified fair trade (FT) and organic coffee, mainly grown by small producers and local cooperatives (Wiegel et al., 2020). Despite increased Peruvian coffee sales in the conventional market in the past years, adherence to FT and organic certifications still gained traction with small producers, resulting in the largest increase in premiums in the Caribbeans and Latin America (CLAC) region (Fairtrade Canada, 2024). Since the investment of this premium mainly finances community initiatives (Jodrell & de Bruin, 2025), the effect extends beyond the individual to the community fostering the growth of social empowerment. To illustrate ways in which social empowerment can take place, this paper is based on preliminary analysis from a field philosophy research, where we focused our attention on different types, conditions and effects of empowerment achieved through FT (Marchildon & Guertin-Fleurent, forthcoming). More specifically, we will focus on a case studied during our fieldwork in Peru (between March and April 2024): an established coffee and cocoa cooperative. FT certified for more than fifteen years, with more than a thousand members in the Jaén region, they have taken part since 2019 in major social projects: an in-house preventive health service office (dental and nursing), as well as a school (welcoming children from kindergarten to high school). Although we did not conduct an impact study, the combination of a FT certification and a cooperative association is known in the literature to foster a greater sense of belonging and collective power (whether it is economic, environmental, organisational and/or technical) among small producers (Lozano Paredes et al., 2025; Ruben & Fort, 2012). In this case, we observed that the choices made by the members of the cooperative generate social empowerment that positively affects, not only them, but ripples to the greater community around.