



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

## Positive deviance in adaptation to climate change with sheep fattening: New pathways for farmer-led extension in Ethiopia

BIRGIT HABERMANN<sup>1</sup>, TIGIST WORKU<sup>2</sup>, SHENKUTE GOSHME<sup>3</sup>, TODD CRANE<sup>1</sup>, ELIZABETH GETAHUN TADESSE<sup>2</sup>

<sup>1</sup>*International Livestock Research Institute (ILRI), Sustainable Livestock Syst., Kenya*

<sup>2</sup>*International Livestock Research Institute (ILRI), Sustainable Livestock Syst., Ethiopia*

<sup>3</sup>*Amhara Region Agricultural Research Institute, Debre Birhan Agricultural Research Centre, Dept. of Animal Breeding and Genetics, Ethiopia*

### Abstract

Farmers in the Ethiopian Highlands experience severe impact of climate change in terms of frost, hail and a shift in seasonality and rainfall patterns and intensity. Crop farming as a source of income has therefore become unreliable and some farmers focus on creating short-term incomes with small investment in livestock as replacement. We used the positive deviance approach as a conceptual framework. We started with an original sample of 34 local innovators that were selected in a qualitative research process. Consequently, we focused on four pioneer farmers for piloting an in-depth survey over more than a year in 2021 to 2022. The data collection involved repeated semi-structured interviews, monthly on farm visits during the implementation of modern sheep fattening, collecting data records on amongst others weight changes and feed. Participatory data collection is a learning process, and pioneers quickly adapted new approaches. We observed that the pioneer farmers were improving their practices over the short period of time we did this research together; that they openly engaged with others regarding this and adopted other farmers' recommendations easily – and vice versa; and that they even changed their self-perception from being an ‘ordinary’ farmer to someone who can become a community facilitator in farmer-to-farmer learning. We conclude that while we still have to learn more about how to partner with pioneers of adaptation in an on-farm scaling mechanism on climate-smart technologies, we see already now a promising reframing of how we can work with farmers. Climate change has a big impact on the farming systems at such high altitudes. To respond to the fast pace of these changes, we have to adapt the way we work with farmers: rather than focusing on mere adoption, we have to understand how farmers are implementing technologies already existing in their communities. While we still have to understand the challenges they are facing, we have to focus more on the solutions they are finding and develop technologies together with them starting from there.

**Keywords:** Adaptation, climate change, participatory action research