



Tropentag, September 18-20, 2019, Kassel

“Filling gaps and removing traps  
for sustainable resource management”

## Rural Female-Headed Households’ Perception, Strategies, and Practices of Pest Management in Amhara Region, Ethiopia

BIRTUKAN ASMARE<sup>1</sup>, BERNHARD FREYER<sup>1</sup>, JIM BINGEN<sup>2</sup>, MERKUZ ABERA<sup>3</sup>

<sup>1</sup>*University of Natural Resources and Life Sciences (BOKU), Div. of Organic Farming, Austria*

<sup>2</sup>*Michigan State University, Dept. of Community Sustainability, United States of America*

<sup>3</sup>*Bahir Dar University, Plant Science, Ethiopia*

### Abstract

Studies on farm pest management perception, strategies, and practices with a specific focus on female headed households (FHHs) (single, divorced, widowed) was found to be very scarce. A mixed method approach was applied, integrating diverse qualitative and quantitative surveys including key informant interviews, focus group discussion (FGD), household survey, field observation and photo documentation. We used data from 334 randomly selected respondents from 4 districts of the Amhara Region of Ethiopia. The results reveal that crop pests, disease and weeds are among the constraints for food security with varied intensity and severity across agro-ecologies. As part of FHHs agricultural activities, crop pests, diseases and weeds are managed through agro-chemicals, following the mainstream and socially accepted agricultural practices. Integrated Pest Management (IPM) as a more environmentally friendly, economically viable and socially acceptable approach is uncommon, and rarely promoted by advisory services. The same is with alternative organic farming practices. An excessive and indiscriminate use of pesticides is a cumulative effect of the adoption of various inputs in the 1990s, driven by the Green Revolution (GR), lack of effective alternative methods of pest management, inadequate extension advisory services, and limited institutional control of local pesticide markets. As part of dealing with agro-chemicals, pesticide handling was made in violation of safety practices; with unsafe storage, with little or no use of personal protective equipment (PPE), unsafe disposal and dependence on less expensive but more acutely toxic and environmentally persistent pesticides such as DDT. By applying the knowledge, attitude and practice approach, however, we identified knowledge and perception have detrimental role in influencing pesticide-handling practices. However, high knowledge and risk perception does not always translate into good behavior, rather influenced by socio-economic, institutional and climatic contexts. Therefore, it is vital to understand the various inter-related factors for identifying consequences and recommend more gender sensitive programs and interventions. Therefore, this study suggests the need for action for the reduction of pesticide risks through research, advisory and policy.

**Keywords:** Environment, Ethiopia, exposure, female headed households, human health