

The Chancellor of Ghent University has the honour of inviting you to attend the public defense of the doctoral dissertation of
Willy Désiré Emera

Title of the doctoral dissertation:

Subsistence Farming, Household Vulnerability, and Child Malnutrition: Understanding Food and Nutrition Security Challenges in Rural Burundi

The public defence will take place on Friday, 27 February 2026 at 2:00 PM in the meeting Room Azalea (AO.1) at Campus Coupure, Coupure Links 653, 9000 Ghent.

There will be a contiguous reception in the HOP meeting room to which you are heartily invited. Please confirm your attendance before Monday, 23 February to: Willy.Emera@UGent.be.

Dissertation supervisors

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Abstract of the doctoral research

Food and nutrition security in subsistence farming systems are shaped by complex interactions between agricultural production, livelihoods, and market access, particularly in predominantly rain-fed smallholder contexts where households depend largely on their own output. However, subsistence production rarely guarantees adequate, diverse, or nutritious diets, as income plays a decisive mediating role in food access by determining households' ability to purchase nutrient-rich and culturally preferred foods beyond staple crops. In Burundi, where subsistence agriculture dominates rural livelihoods, these structural constraints contribute to persistently high levels of food insecurity and child malnutrition despite widespread engagement in farming. This thesis examines how smallholder food production systems influence food and nutrition security among rural households, addressing the broader challenge of achieving Sustainable Development Goal 2 (Zero Hunger). It investigates local perceptions of food and nutrition security, analyses the relationship between agricultural production diversity, income, and dietary diversity, explores the role of food agency in shaping consumption choices, and identifies key determinants of child malnutrition. The findings demonstrate that food insecurity in rural Burundi is not primarily a consequence of insufficient production but a structural livelihood issue rooted in poverty, weak market integration, gender inequality, and limited income diversification. While many households cultivate diverse crops, production diversity alone does not translate into improved dietary diversity or nutritional outcomes; instead, off-farm income and stronger market participation emerge as more powerful determinants of diet quality and child nutrition, underscoring the need for integrated ecological, economic, and social interventions.

Brief Curriculum Vitae

Willy Désiré Emera is a Burundian agricultural economist with over a decade of research experience, currently serving as Researcher at the Institut des Sciences Agronomiques du Burundi (ISABU) and, from 2024, Director of Research Support Services. He holds a Master of Science in Development, Environment and Society from the Universities of Liège and Louvain-la-Neuve, as well as a bachelor's degree in Agricultural Engineering focused on rural economy and agricultural enterprise management from the University of Abdelhamid Ibn Baddis of Mostaganem, Algeria. Emera began his career as a research assistant with the Consortium for Improving Agriculture Livelihoods in Central Africa (CIALCA) and has been with ISABU since 2013. He joined the Department of Agricultural Economics as a doctoral researcher in 2019, contributing to international academic and policy discussions on food systems, nutrition, and agricultural development. His work emphasizes the structural links between agricultural production, markets, and dietary outcomes in subsistence contexts, as well as institutional strengthening and climate-smart strategies to improve smallholder livelihoods, resilience, and sustainable food security.

