

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

### **Mariam Amadou Diallo**

#### Title of the doctoral dissertation:

Evaluating pathways for food systems transformation in Africa and Europe: trade policy, agricultural investment, and digitalisation

The public defence will take place on Thursday, 26 February 2026 at 2:00 PM in the meeting Room Azalea (A0.1) 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 Friday, 20 February to:

[mariamamadou.diallo@ugent.be](mailto:mariamamadou.diallo@ugent.be)

#### **Dissertation supervisors**

**Prof. dr. ir. Jeroen BUYSSE**

Faculty of Bioscience  
Engineering,  
Ghent University

**Prof. dr. ir. Marijke D'HAESE**

Faculty of Bioscience  
Engineering,  
Ghent University

#### **Board of examiners**

**Prof. dr Abdul M. MOUAZEN**

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Faculty of Bioscience  
Engineering,  
Ghent University

**Prof. dr. ir. Wim VERBEKE**

Faculty of Bioscience  
Engineering,  
Ghent University

**Prof. dr. Hans DE STEUR**

Faculty of Bioscience  
Engineering,  
Ghent University

**Dr. Fousseini TRAORE**

The Markets, Trade, and Institutions Unit (MTI),  
International Food Policy Research Institute (IFPRI)

**Prof. dr. Charlotte JANSSENS**

Faculty of Business Economics,  
University of Hasselt

#### **Abstract of the doctoral research**

In Africa, food systems are not only about agriculture, but this sector is fundamental to livelihoods, employment, and food access. Since agriculture remains the main source of jobs and income in rural areas, policies such as AfCFTA trade liberalisation and CAADP public investment programmes are crucial not only economically, but also for improving living conditions across the continent. In Europe, food systems are also changing due to shifts in policy and trade, but also digital technologies. Tools such as precision farming and remote monitoring help increase production, reduce environmental harm, improve food tracking and quality, and can also affect employment by changing the types and number of jobs in the sector. This dissertation explores the socioeconomic implications of these transitions through four studies. It focuses on two geographic contexts, Africa and Europe, and examines how trade policy, public agricultural investment, and digital innovation affect economic growth, poverty, technology adoption, and labor dynamics. The research adopts a multidisciplinary approach, combining computable general equilibrium (CGE) modeling, microsimulation model, econometric analysis, and Theory of Planned Behaviour (TPB) to provide a comprehensive understanding of the mechanisms and outcomes from a food system perspective. This research shows that trade liberalization can reduce poverty but does not benefit everyone equally, that well-designed agricultural investments are key for growth and food security in Africa, and that digital technology adoption depends not only on costs and benefits but also on social influences. Higher digital integration is also associated with small overall employment declines but mainly shifts jobs from agriculture to services, with similar effects for men and women.

#### **Brief Curriculum Vitae**

Mariam A. joined the Department of Agricultural Economics as a doctoral researcher in September 2022. She is from Senegal and holds a Master of Science in Statistics and Economics with great distinction at ENSAE Senegal. She brings seven years of experience as a research analyst at IFPRI and as an associate scientist at AKADEMIYA2063. She also served as a lecturer at UCAD before joining Ghent University. She has contributed to several projects in Africa, including analytical support for National Agricultural Investment Plans (NAIPs) in ECOWAS and Southern African countries, the PARI project supported by the German Federal Ministry for Economic Cooperation and Development (BMZ), the Climate Adaptation Support Program (CASP), and the PAPA Project (Senegal Agricultural Program Support). At the Ghent University, she worked on two European Union Horizon 2020 projects: LEX4BIO and DESIRA while writing her doctoral thesis. She has published in international peer-reviewed journals and presented her work at international conferences.