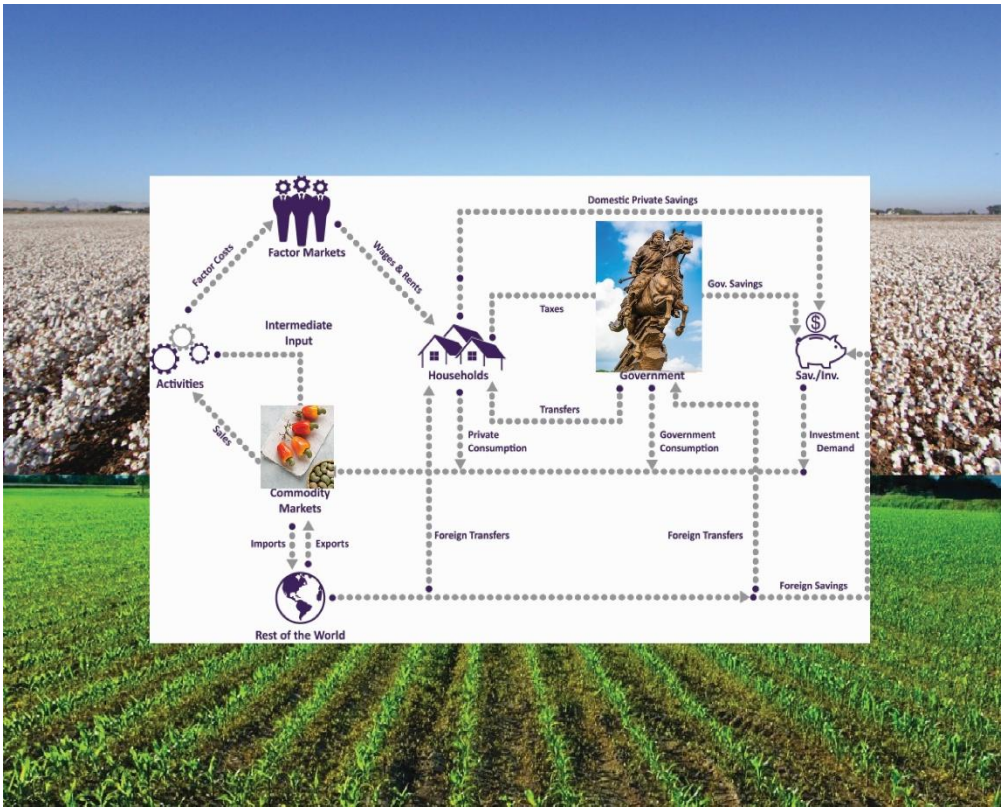

Regional Spring School Benin 2026

Simulation Modelling for the Analysis of Agricultural and Food Systems

University of Parakou, Benin

March 9th to 20th, 2026

Organized by

Agricultural Development and Trade Group, Faculty of Life Sciences, Humboldt-Universität zu Berlin, Germany

In partnership with

Department of Rural Economics and Sociology, Faculty of Agronomy, University of Parakou, Benin

Funded by:

Erasmus+

About the spring school

The 2-week spring school takes place from March 9th to 20th in Parakou (Benin) at the Department of Rural Economics and Sociology, Faculty of Agronomy, University of Parakou, Benin. The program focuses on the theoretical background and applied simulation methods for analyzing agriculture and food system-related markets and policies. The program targets Master and/or PhD students in Agricultural Economics and related fields, early career researchers, and professionals from governmental and non-governmental institutions working in agricultural and food systems, as well as related fields.

Objective

The in-person spring school provide the targeted audience a unique opportunity to develop theoretical and practical skills in economic modelling for agrifood market and policy analysis.

Content

The spring school consists of two weeks: the first week focuses on microeconomic foundations, an introduction to the General Algebraic Modeling System (GAMS) software, and analyses of agrifood markets and policies using partial equilibrium models. The second week covers applications of computable general equilibrium models to assess the economy-wide impacts of Beninese/West African agrifood policies as well as other external shocks. On Wednesday evenings of each week, participants engage in informal networking and cultural exchange events to explore German culture and learn about various research and study opportunities in Germany. Additionally, two public lectures per week, on Wednesdays and Thursdays, discussing the role of science in policy development.

Application requirements

Participation in the spring school is free of charge. However, participants must organize their accommodation and transportation and bring their laptops. To apply, kindly submit your documents via email simultaneously to **shortcourse.adt@hu-berlin.de** and **jacob.yabi@fa-up.bj** by **February 5th, 2026**:

- Motivation letter (max 1 page) highlighting your background and interest in the spring school.
- CV (max 2 pages).
- Proof of registration/enrolment in a Master's or PhD program in agricultural economics or related fields (*for students at universities in Benin and other West African countries*).
- Institutional support letter (*for participants from governmental institutions, research institutions, non-governmental institutions, etc.)*.
- Proof of basic knowledge in microeconomics (e.g., certificate, transcript, etc.).
- Proof of English language skills (e.g., certificate, TOEFL, etc.).

Female applicants are highly encouraged.

Selection procedure

The selection procedure comprises a rigorous selection of 30 participants, which consists of a preselection of applicants (by February 6th), an online interview of short-listed applicants (February 8th to 9th), and a final selection of participants (by February 15th). In some exceptional cases, participants on the waiting list can still be invited to participate.

Teaching team

The spring school is conducted by a diverse team from the Agricultural Development and Trade (ADT) group at Humboldt-Universität zu Berlin. The team has broad experience conducting similar trainings in various countries.

Prof. Dr. Ir. Harald Grethe

Prof. Dr. Ir. Grethe heads the Agricultural Development and Trade Group at Humboldt-Universität zu Berlin. His research interests include economic and agricultural development, economy-wide simulation modelling, and the role of agriculture in society at large. From 2012 to 2020, he chaired the Scientific Advisory Board on Agricultural Policy and Food at the Federal Ministry of Food and Agriculture, Germany. He has worked as an expert for various institutions, including the European Commission, OECD, FAO, and the World Bank. Prof. Grethe co-founded and has been heading the thinktank Agora Agriculture in Berlin since 2022.

Dr. Zuhal Elnour

Dr. Zuhal Elnour is a senior research fellow at the Agricultural Development and Trade Group at Humboldt-Universität zu Berlin and a Senior Researcher at the Agricultural Economics and Policy Research Centre of the Agricultural Research Corporation in Sudan. With extensive experience consulting for international organizations, e.g., the World Bank, she specializes in agricultural and development economics, economy-wide simulation modelling, and labour economics. She is experienced in teaching Bachelor's, Master's, and PhD students. Dr. Elnour has extensive experience delivering simulation modelling training using GAMS, equipping participants in Benin, Ghana, Jordan, Kenya, and Sudan with practical skills in modelling and policy analysis. Her research interests focus on addressing the challenges of poverty alleviation and sustainable development in developing countries. Her current work involves using and developing economy-wide simulation modelling to analyze climate change impacts on human health in Sub-Saharan Africa.

Dr. Ir. Agossoussi Thierry Kinkpe

Dr. Thierry Kinkpe is a lecturer and senior research fellow at Agricultural Development and Trade Group at Humboldt-Universität zu Berlin since 2023. He has broad experience in using and developing general equilibrium models. Dr. Kinkpe has several years of experience in teaching Bachelor's, Master's, and PhD students. He has taught in summer/spring schools on simulation modelling for agricultural development and policy analysis as well as climate change impacts in Benin, Ghana, Jordan, and Kenya. In recent years, his research focused on the economy-wide implications of developing the processing of agricultural products. Geographically, his research focuses on Agriculture-based economies, mostly in Africa. He has been a consultant for several international organizations.

Dr. Jonas Luckmann

Dr. Luckmann has been a lecturer and senior research fellow at the Agricultural Development and Trade Group at Humboldt-Universität zu Berlin since 2016. He is experienced in teaching Master's, Bachelor's and PhD students. He has taught in summer/spring schools on agricultural economics in Bhutan and simulation modelling in Benin, Ghana, Jordan, Kenya, and Sudan. His research focuses on policy analysis, water and resource management, and climate change, including its regional, distributional, and economy-wide implications. Geographically, his research is centered in Africa and the Middle East. Dr. Luckmann is an associate editor of the journal Water Economics and Policy, a 2020-2023 research fellow at the Global Trade Analysis Project (GTAP), and a consultant for various international organizations.

Martial Houessou

Martial Houssou is a doctoral researcher at the Agricultural Development and Trade Group at Humboldt-Universität zu Berlin. His research uses economic modeling to examine the economy-wide impacts of climate change-induced heat stress in Burkina Faso. His experience includes leading monitoring and evaluation (M&E) for significant development projects like the ECOWAS Rice Observatory and the MOVE Competitive Africa Rice Initiative, which focuses on West Africa. He has also taught simulation modelling at the Master's level.

Peter Mwangi

Peter Mwangi is a doctoral researcher at the Agricultural Development and Trade Group at Humboldt-Universität zu Berlin. His research uses economic modelling to focus on the economy-wide impacts of climate change through agricultural yield changes in Kenya. Previously, Peter worked as an Economist and Project Officer for organizations such as the Ministry of Environment and Forestry, Low Emission and Climate Resilient Development Project, and the Forestry and Research Institute in Kenya. He has experience in teaching simulation modelling at the Master's level.

For more information, please visit the spring school link below:

www.tradeanddevelopment.hu-berlin.de

Program Overview

Week 1 **Foundations and Theories of Simulation Modelling and Introduction to GAMS**

Date **09/03/2026 – 13/03/2026**

No	Date	Day	Time	Theme and teaching objective
1	**09/03/2026**	**Monday**	08:30 – 10:00	Welcome and introduction: course structure and content
			10:30 – 12:30	Introduction to policy analysis
			14:00 – 15:30	Methods of policy analysis
			16:00 – 17:30	Microeconomic foundations of demand and supply systems
2	**10/03/2026**	**Tuesday**	08:30 – 10:00	Market equilibrium
			10:30 – 12:30	Elasticities of demand and supply
			14:00 – 15:30	Welfare economics and the efficiency of markets
			16:00 – 17:30	Policy instruments for adaptation to and mitigation of climate change
3	**11/03/2026**	**Wednesday**	09:00 – 11:00	**Public lecture (1):** Can scientific policy advice contribute to practical agricultural and food policy design? Experiences from Germany
			13:30 – 13:30	PC-LAB: A grain market model in Excel
			14:00 – 15:30	Introduction to GAMS
			16:00 – 17:30	Introduction to policy simulation modelling
			18:00 – 19:30	Evening event: German culture, food and cuisine
4	**12/03/2026**	**Thursday**	09:00 – 11:00	**Public lecture (2):** Analyzing the Potential of Cashew By-product Processing in Creating a More Sustainable Agri-Food System: A CGE Analysis on Benin Case
			11:30 – 12:30	PC-LAB: A grain market model in GAMS
			14:00 – 15:30	PC-LAB: Improving the efficiency of the model
			16:00 – 17:30	PC-LAB: Subsidies and welfare analysis
5	**13/03/2026**	**Friday**	08:30 – 10:30	PC-LAB: Multiregional model and data input/export from Excel
			11:00 – 12:30	Interpretation and discussion of model results
			14:00 – 15:30	Limitations of PE models and overview of available PE models
			16:00 – 17:00	Evaluation of Week 1

Week 2 **Quantitative Analysis of Agricultural and Food Policies in General Equilibrium Models**

Date **16/03/2026 – 20/03/2026**

No	Date	Day	Time	Theme and teaching objective
6	**16/03/2026**	**Monday**	08:30 – 10:30	Introduction to Social Accounting Matrices
			11:00 – 12:30	Introduction to Social Accounting Matrices
			14:00 – 15:30	PC-LAB: social accounting matrix analysis
			16:00 – 17:30	Introduction to CGE modelling
7	**17/03/2026**	**Tuesday**	08:30 – 09:30	Prices and accounting identities in CGE modelling
			09:30 – 10:30	A basic 2-sector CGE model
			11:00 – 12:30	PC-LAB: Policy experiments in a basic 2-sector CGE model
			14:00 – 15:30	Interpretation and discussion of the model results
			16:00 – 17:30	Extension of the basic 2-sector CGE model
5	**18/03/2026**	**Wednesday**	09:00 – 11:00	**Public lecture (3):** Irrigation Expansion in Africa – A Comparative Economy-wide Study on Benin and Kenya
			11:30 – 12:30	- Model setup and calibration - Market clearing and macroeconomic closures in CGE
			14:00 – 15:30	PC-LAB: Policy experiments in an extended basic 2-sector CGE model
			16:00 – 17:30	Open economy CGE model
			18:00 – 20:00	Evening event – Agricultural research and study opportunities in Germany
6	**19/03/2026**	**Thursday**	09:00 – 11:00	**Public lecture (4):** Economy-wide impacts of climate change on economies of the Global South
			11:30 – 12:30	PC-LAB: Policy experiments in extended open economy CGE model
			14:00 – 15:30	Limitations of CGE models and overview of available CGE models
			16:00 – 17:30	Group work
			17:30 – 18:30	Group work
7	**20/03/2026**	**Friday**	08:30 – 10:30	Group presentation
			11:00 – 12:30	Group presentation
			14:00 – 15:30	Group presentation
			16:00 – 17:00	Evaluation of Week 2 and Certificate Awards