



## Summer School 2018 on Policy Analysis of Agricultural and Food Systems Using Economic Modelling

On the campus of the School of Economics Socio-Anthropology and Communication for Development (EESAC/FSA/UAC) at Abomey-Calavi, Benin

**Workshop 1** Agricultural and Food policy: Foundations and theories (20.08 – 24.08.2018)

**Workshop 2** Quantitative analysis of policies with partial equilibrium models (27.08 –31.08.2018)

**Workshop 2** Quantitative analysis of policies with general equilibrium models (03.09 –07.09.2018)

### Organized by

Humboldt University of Berlin, Germany

School of Economics Socio-Anthropology and Communication for Development  
(EESAC/FSA/UAC), Benin

**In partnership with:** African School of Economics (Benin), Faculty of Agronomics of the University of Parakou (Benin), Institute of Technology of the University of Parakou (Benin)



Funded by the German Academic Exchange Service (DAAD)

# DAAD

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German Academic Exchange Service

- You would like to enhance your theoretical and practical knowledge in applied economics
- You are interested in learning about the principles of policy analysis in the agricultural and food systems



- You would like to acquire analytical skills by applying methods hands-on with real world examples
- You want to learn about using economic models to address policy relevant questions

... then apply for the Summer School 2018!

**Application deadline: 31<sup>st</sup> of May 2018**

## What is the summer school 2018 about?

The summer school 2018 is a three-week program from August 20 to September 07, 2018 focusing on the theoretical foundations of policy analysis and the practical quantitative tools to analyse agricultural and food policy. The school is jointly organized by the International Agricultural Trade and Development Group of the Humboldt University of Berlin and the School of Economics Socio-Anthropology and Communication for Development of the University of Abomey-Calavi. Students from the following partner universities are also eligible for participation in the Summer school: African School of Economics, Faculty of Agronomics of the University of Parakou and Institute of Technology of the University of Parakou.

## Objective and content

The agri-food sector is one of the pillars of Benin's economy contributing to over 23% of the GDP (in 2015). Therefore, this sector deserves a particular attention when it comes to policymaking. Economic models are specifically useful to analyse the consequences of policy changes.

The objective of the summer school is to familiarize participants with state of the art theories and research methods for the quantitative analysis of policy-relevant questions in the agri-food systems. The summer school consists of three one-week workshops, during which the participants are taught hands-on tools that they could use to address policy questions for their master theses and later in their professional life.

The first workshop focuses on the theoretical foundations of scientific policy analysis. The workshop will reinforce the microeconomic foundations of the participants and will introduce the main policy instruments related to the agri-food system as well as the methods to measure the effects of policy intervention. The second workshop deals with the quantitative analysis of agricultural and food policies using partial equilibrium models. Through hands-on case studies, the participants learn how to apply this class of models. They also learn about their advantages and shortcomings. The third workshop addresses the use of applied computable general equilibrium models to explore and quantify the effects of agricultural and food policies. Participants are first introduced to the construction of the database used as benchmark for such models, the social accounting matrix. Next, they learn how to apply such models with hands-on case studies, as well as the strengths and limitations of this class of models.

The workshops will take place on the campus of the School of Economics Socio-Anthropology and Communication for Development in Abomey-Calavi (EESAC/FSA/UAC). Attendance to the workshops is restricted to selected participants.

Besides the workshops, the summer school also includes open scientific talks every Friday during the three weeks. Attendance to the talks is opened to anyone who is interested. The talks are an opportunity for the scientific community to engage in discussion about the research topics covered at the International Agricultural Trade and Development Group and discuss potential areas for research cooperation. Finally, every Wednesday evening a social event is organized to present opportunities for studies and research in Germany. Attendance to the social events is also opened to the public.

## Who is teaching?

Lecturers and speakers during the summer school 2018 are professors and researchers from the Humboldt University of Berlin, one of the leading universities in Germany. They are all international experts in the field of policy analysis of the agricultural and food systems.

### **Prof. Dr. Harald Grethe**

Prof. Dr. Grethe holds the chair of International Agricultural Trade and Development at the Humboldt University of Berlin. He has ample experience in the analysis of policies related to agriculture, development and trade in the European Union as well as many other countries such as Ethiopia, Sudan, Palestine, Turkey, Israel, and China. Since 2013, Prof. Dr. Grethe is the chair of the Scientific Advisory Board on Agricultural Policy, Food and Consumer Health Protection at the Federal German Ministry of Food and Agriculture. Prof. Dr. Grethe is also consultant for several international organizations. In 2017, he published a report on “Trade policies in Sub-Saharan Africa: Consistency with domestic policies and implications for sustainable and inclusive agricultural development” with one of the focuses being the trade and domestic policies in Benin. Prof. Dr. Grethe is the responsible person for the Master program on agricultural economics at the Humboldt University of Berlin and conducted several summer and winter schools for international students in Germany, Ethiopia, Sudan and Bhutan.



### **PD. Dr. Khalid Siddig**

Khalid Siddig is a senior researcher at the International Agricultural Trade and Development Group of the Humboldt University of Berlin since April 2016 and an associate Professor of Agricultural Economics at the University of Khartoum in the Sudan since March 2012. Dr. Siddig's research interest and publications are focused on examining the effectiveness of policies applied to agriculture and natural resources in developing countries, especially in Africa. Currently at the Humboldt University of Berlin, he offers courses on economics of agricultural and rural development, simulation modelling of policies and markets and general equilibrium modelling. Dr. Siddig has previously contributed to the organization and instruction of various training courses and summer/winter schools on simulation modelling of policies and markets in Sudan (2013) and Ethiopia (2014), on simulation modelling in Germany (2015) and in Egypt (2015) and on the estimation and development social accounting matrices in Egypt (2015).



### **Dr. Jonas Luckmann**

Dr. Luckmann is lecturer and researcher at the International Agricultural Trade and Development Group of the Humboldt University in Berlin since 2016. He is well experienced in lecturing Master and Bachelor students in both German and English. He is also involved in a summer school on agricultural economics in Bhutan. His research interests focus on economic modelling of the water sector. He developed a general equilibrium model centred on the water sector and published in several internationally peer-reviewed journals. He is associate editor of the journal *Water Economics and Policy*, and is consultant for various international organizations.



## Johanes Agbahey

Johanes Agbahey is an agricultural economist with several years of experience in economic analysis and policy-oriented research. He is currently research assistant at the International Agricultural trade and Development Group of the Humboldt University of Berlin. His current focus is on economic modelling to explore and quantify the impact of policies in agriculture and food sectors, trade, labour markets and development issues. From 2008 to 2011, he worked as consultant for the International Institute of Tropical Agriculture in Benin, where he collected extensive experience on the agri-food systems and policies in Benin. Johanes Agbahey is well experienced with the General Algebraic Modeling System (GAMS), which will be used in the summer school.



## How to apply for the summer school

The summer school is designed for Master students who are in their third semester with background in agricultural economics, economics, international trade, and related fields. Qualified applicants should be currently enrolled in one of the partner universities. The minimum qualification is the completion of the module Introduction to microeconomics. In addition, good command of English language is desired. The maximum number of participants in the workshops is 30.

The summer school is free of charge and the application process is also free of charge. Interested applicants should register by sending the following details to the coordinators Johanes Agbahey ([ssbenin-thaer-institut@hu-berlin.de](mailto:ssbenin-thaer-institut@hu-berlin.de)) and Prof. Vissoh Pierre ([pierrevissoh@gmail.com](mailto:pierrevissoh@gmail.com)).

- Name and contact details (email and cell phone)
- Proof of registration at one of the partner universities
- Transcript of records with grades in microeconomics and in English (alternatively score for TOEFL or GRE tests)
- Please state whether you have already had some introduction to GAMS and to modelling techniques
- Please state whether you could bring your own laptop with Microsoft Windows as the operating system

## Accommodation, transportation and food

Participation in the summer school does not include the coverage of accommodation and transportation costs. Participants have to organize accommodation, transportation and food on their own. Snacks will be offered during breaks and the social events.

We are looking forward to your registration and please feel free to contact us if you have any question!

### Contact details:

Johanes Agbahey

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Prof. Vissoh Pierre

[pierrevissoh@gmail.com](mailto:pierrevissoh@gmail.com)

For more information, please visit <https://www.agrar.hu-berlin.de/de/institut/departments/dao/ihe/summer-school-benin-2018>

## Program overview

### Workshop 1 (20.08 – 24.08.2018) – **Agricultural and Food policy: Foundations and theories**

Lecturer: Prof. Dr. Harald Grethe

Assistant: Johanes Agbahey

	Monday	Tuesday	Wednesday	Thursday
9.00 – 10.30	Welcome and introduction Course structure and content	Microeconomic foundations of supply systems	Welfare economics and the efficiency of markets	Policy instruments: price stabilization
11.00 – 12.30	Introduction to Scientific Policy Analysis	Market equilibrium	Distribution of welfare	The measurement of agricultural support
14.00 – 15.30	Methods of scientific policy analysis	Elasticities of demand and supply	Policy instruments: tariffs, import quotas and tariff rate quotas	The measurement of the effects of policy intervention
16.00 – 17.30	Microeconomic foundations of demand systems	Market structures: perfect and imperfect competition	Policy instruments: subsidies and price controls	Evaluation of the course

Wednesday 7pm: Social event

Friday 9:00 am – 12:00 pm: Scientific talk followed by discussion: *Trade policies in Sub-Saharan Africa: Consistency with Domestic Policies and Implications for Sustainable and Inclusive Agricultural Development*



Workshop 2 (27.08 – 31.08.2018) – **Quantitative analysis of policies with partial equilibrium models**

Lecturer: Dr. Jonas Luckmann

Assistant: Johanes Agbahey

	Monday	Tuesday	Wednesday	Thursday
9.00 – 10.30	Introduction to policy simulation modelling	PC-LAB: Introduction to GAMS	PC-LAB: Corn market model: simulation of subsidies	PC-LAB: Extension to multiple products model
11.00 – 12.30	Introduction to partial equilibrium models	PC-LAB: Corn market model in GAMS	Interpretation and discussion of the model results	Interpretation and discussion of the model results
14.00 – 15.30	Price and quantity systems in partial equilibrium modelling	PC-LAB: Corn market model: simulation of border policies	PC-LAB: Corn market model: welfare analysis	- Limitations of PE models - Overview of available models
16.00 – 17.30	PC-LAB: Wheat market model in Excel	Interpretation and discussion of the model results	Interpretation and discussion of the model results	Evaluation of the course

Wednesday 7pm: Social event

Friday 9:00 am – 12:00 pm: Scientific talk followed by discussion: *Ex-ante analysis of water policies with equilibrium models*

Workshop 3 (03.09 – 07.09.2018) – **Quantitative analysis of policies with general equilibrium models**

Lecturer: PD. Dr. Khalid Siddig

Assistant: Johanes Agbahey

	Monday	Tuesday	Wednesday	Thursday
9.00 – 10.30	Introduction to social accounting matrices	PC-LAB: A basic 2 sector CGE model	PC-LAB: extension of the basic 2 sector CGE model	PC-LAB: A basic 1*2*3 open economy CGE model with real world data
11.00 – 12.30	- A SAM approach to modelling - SAM multiplier analysis	- Model setup and calibration - Market clearing and macroeconomic closures in CGE	PC-LAB: A basic 1*2*3 open economy CGE model	Policy simulation in a 1*2*3 open economy CGE model with real world data with discussion of the results
14.00 – 15.30	Introduction to CGE modelling	PC-LAB: Policy experiments in a basic 2 sector CGE model	PC-LAB: Policy experiments in a basic 1*2*3 open economy CGE model	- Limitations of general equilibrium models - Overview of available models
16.00 – 17.30	Prices and accounting identities in CGE modelling	Interpretation and discussion of the model results	Interpretation and discussion of the model results	Evaluation of the course

Wednesday 7pm: Social event

Friday 9:00 am – 12:00 pm: Scientific talk followed by discussion: *Assessing food, energy and water securities under a changing climate: a nexus modelling approach*

## SUMMER SCHOOL 2018

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### Contact details

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