

Dr. Amy Faye

Born on March 1st 1986
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AREAS OF INTEREST: Agricultural and resource economics, Development economics, Institutional economics.

Education

- February 2018 **Doctor in economics with emphasis on agricultural and resource economics, with honors**
University Cheikh Anta Diop of Dakar
Title: Climate and agriculture in Senegal : An economic analysis of irrigation water availability in a context of rainfall variability in the Niayes area of Senegal
Thesis supervisor: Professor Ahmadou Aly Mbaye
- 2009 – 2010 **Master 2 in Economics of Markets and Organizations, with honors**
Toulouse School of Economics (TSE), University Toulouse 1 Capitole
- 2008 – 2009 **Master 1 in Economics**
Toulouse School of Economics (TSE), University Toulouse 1 Capitole
- 2005 – 2008 **Bachelor in Mathematics and Economics, with honors**
Université Toulouse 1 Capitole
- 2005 **High school diploma in science with emphasis on Mathematics, Physics and Chemistry, and Natural Sciences, with honors**
Thierno Saidou Nourou Tall High School (Dakar, Senegal)

Work Experience

- November 2020-Present Post-doctoral Researcher at the **Center for Development Research (ZEF)**
Supervisors: Professor Joachim von Braun and Doctor Heike Baumüller
- January 2017-October 2020 Researcher at the Bureau d'Analyses Macro-économiques (Bame) of the **Senegalese Institute of Agricultural Research (ISRA)**
- April 2012-December 2016 Research assistant at the Bureau d'Analyses Macro-économiques (Bame) of the **Senegalese Institute of Agricultural Research (ISRA)**
- July 2011-April 2012 Intern at the Bureau d'Analyses Macro-économiques (Bame) of the **Senegalese Institute of Agricultural Research (ISRA)**
My mission consisted of assessing the economic profits of cultivating *Jatropha* in the Peanut Basin (center of Senegal).
- June-October 2010 Intern at the department of Regulatory Affairs of **France Telecom**, Paris (France)
My mission consisted of performing an analysis of Google's strategic development with tools of industrial organization.
- July-August 2008 Intern at the **Central Bank of West African Countries-BCEAO** (Senegal)
As part of a team, other interns and I were in charge of doing a monthly survey of major Senegalese companies in order to evaluate their economic progress from month to month and infer the global trend of the economy of Senegal.

Computer skills and Language proficiency

Computer Skills

- Microsoft Office: Good working knowledge of Word, Excel, PowerPoint, Outlook
- Statistics and Econometrics: Good working knowledge of STATA, SPSS, CSpro, Limited knowledge of SAS, R, EViews
- Mathematical Programming: Good working knowledge of GAMS (Micro-Economic Modeling of farms, hydro-economic modeling)
- Other modeling abilities: Good working knowledge of the Tradeoff Analysis for Multi-dimensional Impact Assessment model (TOA-MD)

Language proficiency

- English: Fluent
- French: Fluent
- German: Basics (3rd language at high school)
- Wolof: Mother language

Received professional Training

March 2013 to June 2013: Training on the Tradeoff Analysis for Multi-dimensional Impact Assessment model (TOA-MD 5) by John Antle and Roberto Valdivia (off-site courses with webinars and one-week workshop at the Oregon State University).

August 2013 (two weeks): GAMS training at the International Food Policy Research Institute's headquarters (Washington, DC) with Siwa Msangi (Senior Research Fellow).

November 2013 (26-29): Agro-Economic Modelling with GAMS, by Maria Blanco at Universidad Politécnica de Madrid.

April 2014 (28–May 2): Training on Quantitative Methods for Policy Analysis using GAMS, by Richard Howitt, Siwa Msangi, and Duncan MacEwan at ICRAF Nairobi, Kenya.

April-May 2015 (2 months): GAMS training at the International Food Policy Research Institute's headquarters (Washington, DC) with Siwa Msangi (Senior Research Fellow).

October 2017 and September 2018 (13 days): Introductory and advanced training on the Farm System SIMulator for developing countries (FSSIM-Dev)—6 days at ISRA (Dakar) and 7 days at the Joint Research Center of the European commission in Sevilla. Offered by Kamel Louhichi, Sergio Gomez Y Paloma, Aymeric Ricome, Liesbeth COLEN and Bruno Barbier.

Publications

Research papers

- **Peer reviewed**
 - **Faye, Amy**, Emanuele Zucchini, Yacine Ngom, Patrizio Vignaroli, Vieri Tarchiani, and Djiby Dia. (2020) 'Assessing the Sustainability of Horticultural Farms in Central Senegal: An Adaptation of the IDEA Method', *Journal of Agriculture and Sustainability*, Vol 13, p. 40. doi: <https://doi.org/10.28924/ip/jas.1923>.
 - Wouterse, Fleur Stephanie; and **Faye, Amy**. 2020. Institutions of collective action and smallholder performance: Evidence from Senegal. In 2020 Annual trends and outlook report: Sustaining Africa's agrifood system transformation: The role of public policies. Resnick, Danielle; Diao, Xinshen; and Tadesse, Getaw (Eds). Chapter 8, Pp. 87-101. Washington, DC, and Kigali: International Food Policy Research Institute (IFPRI) and AKADEMIYA2063. https://doi.org/10.2499/9780896293946_08

- **Conference proceedings**

- **Faye, Amy** and Msangi, Siwa, (2015), Optimal groundwater management under uncertain climate and its implication on irrigation water availability in the coastal North-Niayes region of Senegal, No 8595, EcoMod2015, EcoMod, <https://EconPapers.repec.org/RePEc:ekd:008007:8595>
 - Newest version: **Faye, Amy** and Msangi, Siwa (2018) 'Rainfall variability and groundwater availability for irrigation in Sub-Saharan Africa: evidence from the Niayes region of Senegal'. *Munich Personal RePEc Archive*, vol. 92388
- Ulimwengu, John M., Savadogo, Kimsey, Sall, Leysa M., **Faye, Amy** & Dia, Khadim (2019). 'Agricultural value chains and structural transformation in Senegal: A product space approach', 2019 Sixth International Conference, September 23-26, 2019, Abuja, Nigeria 295781, African Association of Agricultural Economists (AAAE).

- **Working papers**

- **Faye, A.**, Maruyama, E., Scollard, P., & Xie, H. "Targetting investments in small scale irrigation and rural electrification in Senegal". ZEF/PARI report (Unpublished).

- **Submitted to journals**

- Institutions of collective action and smallholder welfare: new evidence from Senegal (contributed as the second author)

- **Under preparation for submission**

- Investing in Risky Inputs in Senegal: Implications for farm profit and food production (contributed as second author, draft available)
Note: this paper is part of a Ph.D. thesis that has been defended at the University of Kiel in May 2020 and will be available online soon.
- Impact of extension services on rural households' food security: evidence from Senegal (order of authorship not yet defined)
- Domestic or imported rice? An empirical analysis of consumers' choices in Senegal (contributing as third author)
Note: This paper is developed under the framework of the STAAARS+ fellowship program of Cornell University
<http://barrett.dyson.cornell.edu/staars/fellows/>

Teaching and Participation to capacity Building Activities

December 2015,
November 2016, May
& June 2018

Assisting a senior researcher for trainings on mathematical programming using Excel and GAMS

First semester of
2019-2020 academic
year

Teaching value chain analysis course to students of the Master 2 in rural economics at the Faculty of economic and management sciences of the University Cheikh Anta Diop of Dakar

Supervision of Master students

March-June 2017	Supervision of an intern from the National School of Statistics and Economics (ENSAE) of Senegal for his master's dissertation. Topic: Determinants of out of home consumption in the region of Dakar (Capital of Senegal)
March-June 2018	Supervision of two interns from the National School of Statistics and Economics (ENSAE) of Senegal for their master's dissertation. Topic intern 1: Determinants of farmers' participation in contract farming: Case study of tomato producers in the Senegal River Valley Topic intern 2: Comparative analysis of onion producers' performance in two agroecological zones of Senegal using a stochastic frontier approach: the Niayes and the Senegal River Valley
March-June 2020	Supervision of an intern from the National School of Statistics and Economics (ENSAE) of Senegal for his master's dissertation. Topic: Investments in inputs and producer efficiency in production systems in Senegal

Conferences (selected)

- Conference on Next Generation Agricultural and Farming Systems Models, Bill & Melinda Gates Foundation, Seattle, August 2014
- EcoMod2015 International Conference on Economic Modeling, Boston College, July 2015
- International scientific conference "Our Common Future under Climate Change", Paris, July 2015
- 11th Annual Meeting of the International Water Resource Economics Consortium (IWREC), The World Bank, Washington, DC—September 2016
- Conference on Impacts of International Agricultural Research: Rigorous Evidence for Policy, World Agroforestry Centre (Nairobi, Kenya), July 2017

Consultancy

- **Center for Development Research (ZEF)**
December 2019-February 2020: Critical literature review on observed and current trends related to the environment, energy, and climate change and adaptation strategies (including policies, technological and community responses) in Senegal.
Output: Report
- **International Food Policy Research Institute (IFPRI)**
December 2018-June 2019: Analysis of the areas to target for investments in small scale irrigation and rural electrification in Senegal.
Outputs: Scientific report and policy brief
- **Program evaluation**
May 2019-July 2019: Member of an evaluation team that was in charge of evaluating the impact of the "Programme d'Appui au Développement Agricole et à l'Entreprenariat Rural (PADAER)" using both qualitative and quantitative tools.
Output: Evaluation report

- **ATRAXIS Group**

October-November 2016: Baseline data collection for warehouse receipts systems (WRS) and traceability standard project for the cashew nut value chain in Côte d'Ivoire.

Output: Inception report

March-April 2017: Analysis of market opportunities for the Senegalese agro-industrial sector in ECOWAS

Output: Non-technical report

References

Dr Siwa Msangi, Senior Researcher

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Professor Ahmadou Aly Mbaye, thesis supervisor, University Cheikh Anta Diop of Dakar

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Dr Fleur Wouteurse, Senior Research Fellow, International Food Policy Research Institution (IFPRI)

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