

**CURRICULUM VITAE, VALENTIN GUYE**[Latest version](#)

29 years old

He/his/him

French citizenship

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**I do applied research on the economics of using land resources sustainably.****Education**

- 2019-2022 PhD in cotutelle from **Université Paris-Saclay** in economics & from **Humboldt Universität zu Berlin** in geography (*magna cum laude*)
- [\*Forest, Food and Fuel: Empirical Identification of Global Sustainability Trade-offs\*](#)
- Supervision  
**Raja Chakir** (Paris Saclay Applied Economics, INRAE), **Sabine Fuss** (MCC, HU) and **Nicolas Koch** (MCC)
- Jury  
**Rachael Garrett** (reviewer), **Ben Groom** (president & reviewer), **Franck Lecocq** (examiner) and **Hermann Lotze-Campen** (examiner)
- Doctoral training  
Estimation of Treatment Effect Winter Semester 2019/20 Humboldt Universität Berlin  
Introduction to GIS, Geospatial Data & Spatial Statistics – Nick Bearman  
Google Earth Engine for Remote Sensing & GIS – Udemy, online  
Several trainings in open science, research ethics and scientific documentation - ABIES
- 2016-2017 M2 *EDDEE – Economics of Sustainable Development and of the Environment* – with distinction, **AgroParisTech**
- Master thesis  
*A cost-effectiveness assessment of result-based agri-environment payment schemes across Europe.* (available upon request)  
Grade: 16/20  
Jury: Jean-Christophe Bureau (INRAE) and Stephane DeCara (INRAE)
- 2015-2016 M1 *Master in Economics* Université Paris-Saclay, **Ecole Polytechnique** & erasmus program at **Humboldt Universität zu Berlin**
- 2014-2015 L3 Economics & Management department, **Ecole Normale Supérieure de Cachan**
- 2012-2014 “*Classe préparatoire D2*” leading to admission at the entry exam to become a 4-year civil servant student at ENS Cachan. Lycée Juliette Récamier – Lyon

2012 "Baccalauréat" economics and social sciences (European English distinction), with honours, Lycée Saint-Just – Lyon

## Professional experience

- 2025-** **Chargé de recherche** de classe normale (researcher) INRAE, based in Centre d'Economie de l'Environnement de Montpellier (CEE-M).
- 2023-2025** **Postdoctoral researcher**, UCLouvain, Earth and Life Institute, [Land Systems for Sustainability Lab](#)  
Working at [Trase](#) and the [Sustain Cocoa](#) project  
  
Reference: Patrick Meyfroidt – patrick.meyfroidt[at]uclouvain[dot]be
- 2018-2019 **Pre-doc** (research internship) Mercator Research Institute on Global Commons and Climate Change (MCC Berlin), Sustainable Resource Management Working Group  
Reference: Nicolas Koch – Koch[at]mcc-berlin[dot]net
- 2017-2018 **Gap year:** travelling and volunteering.
- 2017 **Internship** at DG AGRI, European Commission, Unit D.4 "Environment, climate change, forestry and bio-economy"  
Reference: Olivier Diana – olivier[dot]diana[at]ec[dot]europa[dot]eu
- 2016 **Internship**, CNRS research unit on sustainable development and energy economics (EDDEN, Grenoble Applied Economics Laboratory)  
Reference: Odile Blanchard – odile[dot]blanchard[at]univ-grenoble-alpes[dot]fr
- 2015 **Internship**, economic service of the French embassy in Helsinki, Finland

## Miscellaneous

<u>Languages</u>	<u>Softwares</u>	<u>Others</u>
French: Native language English: Advanced (C1) German: Intermediate (B1)	Active: R, Google Earth Engine, Git, Stata, MS Office, LaTeX, Zotero Passive: QGIS, GeoDa, Gams	Driving licence (B) Sailing instructor ( <i>Les Glénans</i> )

## Grants & awards

### 2022

- Best paper award, Shifting Landscapes conference (LSE, Department of Geography and Environment)
- ABIES international mobility grant
- ADRES international conference participation grant

### 2019-2022

- PhD grant "Contrat doctoral spécifique pour normaliens" (CDSN) 2019-2022

### 2019-2020

- DAAD Doctoral cotutelle scholarship 2019-2020

2014-2018

- Civil servant “normalien” 4-year salary

## Presentations at conferences

2024

- Workshop on the EUDR impact on sustainable sourcing strategies in cocoa supply chains, Brussels, 25 April
- 5th Global Food Security Conference, Leuven, 9-12 April
- World Cocoa Foundation Meeting, Amsterdam 5-7 February – booth in Marketplace “Innovations for Global Impact”

2023

- Journée forêts, Université de Namur
- IDEF workshop, Abidjan
- XVII EAAE Congress (Rennes)
- 10<sup>th</sup> FAERE annual conference (Montpellier)

2022

- ADRES Doctoral Conference
- 13<sup>th</sup> Conference on The Economics of Energy and Climate (at TSE)
- Shifting Landscapes conference (at LSE)
- 9<sup>th</sup> EAAE PhD workshop
- 185<sup>th</sup> EAAE seminar: AgEconMeet – Early career development seminar for agricultural economists in Europe

2021

- AERE Summer Conference
- EAERE Annual Conference
- International Conference in Development Economics
- PhD Lunch Talk CEE-M

2019-2020

- PSAE and MCC internal seminars

## Contributions

### Peer-reviewed

- ***Committed to restoring tropical forests: an overview of Brazil's and Indonesia's restoration targets and policies.*** Dockendorff, C., Fuss, S., Agra, R., Guye, V., Herrera, D., Kraxner, F., 2022. *Environ. Res. Lett.* **17** 093002, DOI [10.1088/1748-9326/ac8ab2](https://doi.org/10.1088/1748-9326/ac8ab2)

### Non peer-reviewed

- ***Côte d'Ivoire cocoa exports and deforestation.*** Guye, V. (2024). Trase. <https://doi.org/10.48650/9HPW-8W11>
- ***SEI-PCS Côte d'Ivoire cocoa v1.1 supply chain map: Data sources and methods.*** Trase, 2024. <https://doi.org/10.48650/3KGC-VB46>
- ***Cocoa traders fall short on supplier disclosure in Ghana.*** Richens, J. A. E., Guye, V., & zu Ermgassen, E., 2023. Trase. <https://doi.org/10.48650/HY9G-N485>

### Data

- ***Côte d'Ivoire cocoa supply chain v.1.1 (2020-2022) (Version 1.1) [Data set]. Trase.*** Guye, V., Gollnow, F., Biddle, H., Ribeiro, V., Meyfroidt, P., Renier, C., & zu Ermgassen, E. K. H. J., 2024. <https://doi.org/10.48650/E5CN-FH18>
- ***Ivorian Cocoa Cooperatives and their Buyers (IC2B)***, Guye, V., 2024. <https://doi.org/10.14428/DVN/YBWJOR>, Open Data @ UCLouvain
- ***Manufacturing census and Universal Mill List attributes of Indonesian palm oil mills, 1998-2015***

### Consultation & Press

- ***Chocolate and Cosmetics Face Price Jolt From Cocoa Supply Chain Law***, [Bloomberg](#), 27/02/2024
- [Chocolate Scorecard](#), Traceability & Transparency scoring, 2023 & 2024
- Research consultancy, July-September 2024 project [Transparent Monitoring](#), International Institute for Applied Systems Analysis (IIASA)

### Peer-reviewing

2023

- Agricultural and Food Economics
- Ecological Economics
- Cogent Economics and Finance
- Cogent Social Sciences

## Research papers

***Price incentives and unregulated deforestation: Evidence from Indonesian palm oil mills***, with [S. Kraus](#)  
FAERE Working Paper, 2021.11. [Most recent version](#)  
**Revise and resubmit**, *American Journal of Agricultural Economics*

### Abstract

Global demand shifts and supply chain interventions have the potential to reduce palm oil's environmental footprint, especially in otherwise unregulated (informal or illegal) plantations. This ultimately depends on deforestation reacting to prices in upstream, complex plantation-mill systems. We produce the first microeconomic panel of geolocalized palm oil mills, and we model their influence on palm plantations across Indonesia where the issue is most critical. We leverage our data granularity and the nature of the value chain to isolate downstream mill-gate price shocks that are exogenous to deforestation upstream. We find that deforestation for smallholder (informal) plantations and for illegal industrial plantations is elastic to the mill-gate price of crude palm oil. However, smallholder deforestation decelerates as palm fruit prices increase. These results inform the design of fair and effective conservation policy.

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***Indirect land use change mechanisms: tests from biofuel mandates and pan-tropical agriculture***  
**Best paper award** at Shifting Landscapes conference (LSE, Department of Geography and Environment)

**Revise and resubmit**, Environmental and Resource Economics

[Most recent version](#)

#### Abstract

Agricultural supply and demand shocks can indirectly cause environmental damages as they propagate across space, time and commodity markets according to mechanisms that have been vastly simulated but barely verified empirically. In this paper, I propose a mapping of these indirect land use change (ILUC) mechanisms to major commercial crops. Within this framework, I derive empirical tests of ILUC mechanisms from moderation effects of crop-specific incentives on land use change responses to a market shock. As a quasi-experimental market shock, I leverage the pre-determined nature of the biofuel mandate agenda under the Renewable Fuel Standard program (RFS) -- one of the largest shocks on global agricultural markets. This detects signals of ILUC for eight different crops across the global tropics, yielding three main results: it corroborates land use displacement specifically; it indicates the prevalence of mechanisms that propagate the incentives to expand cropland -- including for the main commodities associated with deforestation; but it also reveals the existence of general-equilibrium shock-inversion mechanisms. These results warn about the reality of ILUC, and partially identify how it occurs.

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***Biofuel policy and food security: international evidence from the US ethanol mandates***

Poster presentation at the 5th Global Food Security Conference, Leuven, 2024

Draft available upon request.

#### Abstract

Reliance on trade, especially for food security, is increasingly questioned as intractable disruptions of global markets get more frequent. While biofuel policies are most suspected disruptions, observational evidence of their effects on global food security has remained elusive. Here, I propose quasi-experimental estimates of the dynamic relationship between policy support for biofuel demand and international undernourishment, through trade. I leverage that in 2007, the United States (US) have ruled annual maize-ethanol mandates up to 2022. During this period, I relate undernourishment in 129 countries to the pre-determined past, current and future (expectable) mandates. I measure countries' exposures as their long-run calorific import dependency.

I find that, as more dependent countries anticipate mandates ahead, they offset the otherwise worsening effect of past mandates on undernourishment. From these conditional dynamics I derive that a sudden, temporary 4 million tonne disruption to the US maize market, could precipitate 19 million people in undernourishment globally within the 4 next years. These results call for transparent political agendas on traded commodities and they corroborate that food security is exposed through import dependency.

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***Supply chain transparency remains relevant in a world of due diligence regulations.*** (with P. Meyfroidt and E. zu Ermgassen)

**Revise and resubmit**, Environmental Research Letters, Perspectives

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***Direct and indirect cocoa deforestation in the forest landscapes of Ghana*** (led by C. Renier)

### Ongoing research

- ***Global trade of Ivorian cocoa: dynamic baseline in the lead-up to EUDR***

- ***Selection, additionality and spillovers of cocoa sustainable sourcing initiatives*** (with R. Garrett, P. Meyfroidt, C. Renier, G. Van den Broeck, E. zu Ermgassen)
- ***Who benefits from certification? Impacts of Roundtable for Sustainable Palm Oil certification on wages and prices*** (led by R. Heilmayr)
- ***Land use displacement and indirect cocoa deforestation in Ghana*** (led by T. Adoah)
- ***Land use carbon emissions linked to Ivorian cocoa exports*** (led by Carina Mueller and Vivian Ribeiro)
- ***Quantification of emissions from indirect land use change for the main tropical commodities in response to the US Renewable Fuel Standards***, with [R. Chakir](#), [S. Fuss](#) and [N. Koch](#)