



Edouard Pignède

Curriculum Vitae

Current position

2025–Present **Post-doctoral scholar**, *French National Research Institute for Sustainable Development (IRD), Université Paris-Saclay, UMI SOURCE*, Paris,
Member of the BETSAKA project, initiative to assess the environmental and socio-economic impacts of protected areas in Madagascar from 2000 to 2024.

Academic appointments

2025 **Research Fellow**, *NovAfrica (NOVA SBE)*, Lisbon,
Member of the FCTPex project *Artisanal Gold Mining and Sustainable Development*.

Education

- 2021–2025 **PhD, Development and environmental economics**, *AgroParistech (Paris-Saclay University) & Climate Economic Chair*, Paris,
Climate change adaptation in Sub-Saharan Africa: Inequalities and vulnerabilities.
 - Chapter 1: impact of drought on inequalities using quantile treatment effect and distribution regression, as well as the initial endowment in capital.
 - Chapter 2: empirical analysis of the link between artisanal mining and urbanization.
 - Chapter 3: quantitative spatial modeling of climate change-induced migration with liquidity constraints.
 - Chapter 4: quantitative spatial modeling of climate change impact on mortality.
- 2019–2020 **Master's degree in environmental economics**, *AgroParistech (Paris-Saclay University)*, Paris,
Average: 15.95.
Courses: environmental econometrics, economy of natural resources, international trade and environment, public policies and environment, climate change economy
- 2016–2020 **Master's degree in industrial engineering**, *CentraleSupélec (Paris-Saclay University)*, Paris,
Average: 16.35.
 - Specialization in industrial engineering and management of international project.
 - Courses: advanced probability, advanced statistics, economy, sustainable development, modelling and optimization.
 - Six-month project on applied mathematics: development of modelling algorithm of Hawkes process computed with Python.
- 2014–2016 **Classes préparatoires**, *Henri IV*, Paris.
A two-year intensive program in mathematics and physics to prepare for nationwide competitive entrance in top French graduate schools of engineering.

Publications

Journal Articles

- 2025 **Edouard Pignède**. Who carries the burden of climate change? Heterogeneous impact of droughts in sub-Saharan Africa. *American Journal of Agricultural Economics*, 2025.
<https://doi.org/10.1111/ajae.12507>.

- 2021 **Edouard Pignède**, Philippe Roudier, Arona Diedhiou, Vami Hermann N'Guessan Bi, Arsène T. Koba, Daouda Konaté, and Crépin Bi Péné. Sugarcane yield forecast in Ivory Coast (West Africa) based on weather and vegetation index data. *Atmosphere*, volume 12, page 1459, 2021. <https://doi.org/10.3390/atmos12111459>.

Non-refereed journal articles

- 2021 **Edouard Pignède** and Guillaume Daudin. French Trade in the 18th century: Inflation and Revolution. *Dialogue*, 2021. English version: [link](#). French version: [link](#).

On-going works

- 2024 **Edouard Pignède**, and Julien Wolfersberger, Climate immobility in sub-Saharan Africa, Available upon request.
- 2024 **Edouard Pignède**, and Victoire Girard, Golden cities: Artisanal mining and urbanization in sub-Saharan Africa, Available upon request.
- 2025 **Edouard Pignède**, Climate change, adaptation, and mortality.

Research Experience

- Nov,2020 – **Research engineer**, French National Research Institute for Sustainable Development (IRD),
Nov,2021 DIAL, Paris.
- Mapping of Sub-Saharan vulnerability to climate change through three components: exposition, sensibility and adaptation capacities. Building of multiple indicators of vulnerability using household survey (DHS, agricultural survey), satellite data (CHIRPS, ISRIC) and country data (infrastructures, mines localisation) computed with RStudio and QGIS.
 - Application of an original statistical method of spatial matching to assess the effect of roads on inter-sectoral mobility and population migration in Mali, using national census data and RStudio.
 - Building a global database of coast escarpment, nightlight and wave height to assess the role of piracy on coast development using RStudio and QGIS.
 - Computing of price indexes in France in the 18th century using the repeated sales method, RStudio and data from the TOFLIT project (published in Dialogue n°62, English version: [link](#). French version: [link](#)).
- May,2020 – **Research engineer**, French Development Agency (AFD), Paris, End-of-study internship.
- Nov,2020
- Development of statistical models of prediction of sugarcane yields in Ivory Coast based on machine learning algorithm (random forest) and using meteorological data (precipitations, temperatures) and satellite data (NDVI, EVI). Computation with RStudio and QGIS.
 - Publication of a scientific paper in a peer-reviewed journal as well as a research paper in French.

Conference and talks

- 2025 CEEM Seminar, Agro Institute of Montpellier - INRAE.
CSAE Conference in Development Economics, Oxford (England).
Lisbon Micro Group, ISEG, Lisbon (Portugal).
DIAL Seminar, Paris-Dauphine University.
- 2024 EAERE - 29th Annual Conference of the European Association of Environmental Economics, Leuven (Belgium).
NOVAFRICA Conference on Economic Development, Lisbon (Portugal).
CSAE Conference in Development Economics, Oxford (England).
Workshop in Environmental Economics, Toulouse School of Economics (France).

- 2023 PhD Research Group of NOVAFRICA, Lisbon (Portugal).
 Lisbon Micro Group, ISEG, Lisbon (Portugal).
 FAERE - 10th Annual Conference of the French Association of Environmental Economists, Montpellier (France).
 EAAE - 17th European Association of Agricultural Economists Congress, Rennes (France).
 ICDE - International Conference in Development Economics, Paris (France).
 AFSE - The 71st Congress of the French Economic Association, Paris (France).
 Paris-Saclay Applied Economics Internal Seminar, Paris (France).
 EAERE Winter School on Natural Resources and Development, Ascona (Switzerland).
- 2022 AgEconMeet - Early career development seminar for agricultural economists in Europe, Göttingen (Germany).

Skills

- Computer skills Advanced knowledge of R, Python and QGIS
 Basic knowledge of STATA
- Languages French: Native
 English: Fluent
 Spanish: Intermediate

Teaching experience

- 2023 **Introduction to Environmental Economics**, *Master BIOCEB - AgroParistech (Paris-Saclay University)*, Paris.
 Taught in English. 9-hour course at the Master level.
- 2022 **Introduction to Climate Change in Economics**, *Master ADEPP - ENSAE Dakar*, Dakar.
 Taught in French. 2-hour course at the Master level.
- 2022 **Microeconomy**, *CPES - PSL University*, Paris.
 Taught in French. 20-hour course at the Bachelor level (2nd year).
- 2022 **On the use of GIS data in economy**, *AgroParistech (Paris-Saclay University)*, Paris.
 One session introduction lecture course to M2 students.
- 2018 **Teaching assistant in Information System**, *CentraleSupélec (Paris-Saclay University)*, Paris.
 Course for 1st year student.
- 2018 **Personal mathematics teacher**, Paris.
 Teaching mathematics to 10 high-school students.

References

Dr. Philippe Delacote

Senior Researcher, Department of Economy
 Bureau d'Economie Théorique et Appliquée (BETA)
 INRAE
 ✉ philippe.delacote@inrae.fr

Dr. Raja Chakir

Senior Researcher, Department of Economy
 Paris-Saclay Applied Economics (PSAE)
 INRAE-AgroParisTech
 ✉ raja.chakir@inrae.fr

Dr. Julien Wolfersberger

Research fellow, Department of Economy
 Paris-Saclay Applied Economics (PSAE)
 AgroParisTech
 ✉ julien.wolfersberger@agroparistech.fr

Dr. Victoire Girard

Research faculty, Department of Economy
 NovAfrica
 Nova SBE
 ✉ victoire.girard@novasbe.pt