

# Anouch MISSIRIAN

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**Field & Interests:** I am an empirical environmental economist with a background in ecology. I use and develop the tools and models of economics (causal inference, policy design) and from the natural sciences (chiefly ecology) to study conservation, human migration, biodiversity, land use.

## ACADEMIC POSITIONS

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- From 2022: INRAE, France. Chargée de recherche.
  - From 2021: **Toulouse School of Economics**, France. Assistant Professor of Economics.
  - 2020–2021: UC Santa Barbara, USA. Postdoctoral scholar at emLab (Environmental Market Solutions Lab).

## EDUCATION

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- 2014–2020: PhD in Sustainable Development (i.e. Economics & Natural sciences), Columbia University.
  - 2012–2013: MSc. in Environmental and Energy Economics, AgroParisTech.
  - 2009–2014: École normale supérieure, Biology/Ecology.
  - 2007–2009: Classes préparatoire aux grandes écoles, BCPST (biology chemistry physics math).

## ACADEMIC PUBLICATIONS

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- Noack, F., Engist, D., Gantois, J., Gaur, V., Hyjazie, B. F., Larsen, A. E., M'Gonigle, L. K., **Missirian, A.**, Qaim, M., Sargent, R. D., Souza-Rodrigues, E., & Kremen, C. (2024). Environmental impacts of genetically modified organisms. *Science*, 385(6712), eado9340. [10.1126/science.ad9340](https://doi.org/10.1126/science.ad9340)
  - Huebner, G. M., Chabé-Ferret, S., **Missirian, A.**, Wang, S., Lopez-Feldman, A., Sogari, G., Wang, Z., Li, H., Zhang, B., Wang, B., Mediratta, S., & Ivanova, D. (2023). Effectively and equitably steering pro-environmental behavior. *One Earth*, 6(4), 329–332. [10.1016/j.oneear.2023.04.002](https://doi.org/10.1016/j.oneear.2023.04.002)
  - Naeem, S., Bruner, S. G., & **Missirian, A.** (2021). Environmental risk in an age of biotic impoverishment. *Current Biology*, 31(19), R1164–R1169. [10.1016/j.cub.2021.09.001](https://doi.org/10.1016/j.cub.2021.09.001)
  - Missirian, A.**, Frank, E. G., Gersony, J. T., Wong, J. C. Y., & Naeem, S. (2019). Biodiversity and Thermal Ecological Function: The influence of Freshwater Algal Diversity on Local Thermal Environments. *Ecology and Evolution*, 9(12), 6741–7373. [10.1002/ece3.5262](https://doi.org/10.1002/ece3.5262)
  - Missirian, A.**, & Schlenker, W. (2017). Asylum applications respond to temperature fluctuations. *Science*, 358(6370), 1610–1614. [10.1126/science.ao0432](https://doi.org/10.1126/science.ao0432)
  - Missirian, A.**, & Schlenker, W. (2017). Asylum Applications and Migration Flows. *American Economic Review: Papers & Proceedings*, 107(5), 436–440. [10.1257/aer.p20171051](https://doi.org/10.1257/aer.p20171051)

## WORK IN PROGRESS

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- Can Supply Side Interventions Rebuild Global Fisheries?** With Olivier Deschênes, Christopher Costello, Michael Melnychuk, Gavin McDonald.
  - Yes, in Your Backyard: Forced Technological Adoption and Spatial Externalities.**
  - Local Benefits of Apex Predators: Evidence from a River Discontinuity.** With Eyal G. Frank, Dominic P. Parker, Jennifer L. Raynor.
  - The Value of Disaster Prevention: The Desert Locust.** With Joséphine Gantois, Evelina Linnros, Anna Tompsett, Amir Jina, Gordon McCord, Eyal G. Frank.
  - Reversing Local Extinctions: The Economic Impacts of Reintroducing Wolves in North America.** With Eyal G. Frank, Dominic P. Parker, Jennifer L. Raynor.
  - The Impact of Organic farming on Productivity and Biodiversity: Evidence from a Natural Experiment.** With Sylvain Chabé-Ferret, Clélia Sirami, David Sheeren, Marine Coinon, Arnaud Reynaud, Eva Tène, François Libois, Marta Pinzan.
  - When Do Incentives for Preemptive Action Erode Gains from Policy? Studying the Effectiveness of the Endangered Species Act,** with Eyal Frank, Sushant Banjara.
  - A Less Simplistic Approach to Landscape Complexity: Agricultural landscape complexity and pest pressure,** with Eyal Frank.
  - Payment for Ecosystem Services and the Preservation of Forest Cover in Ecuador.**
  - What Drives Migratory Pressure at the Southern EU Borders?** CEEP Working Paper Number 5. June 2019.

## TEACHING

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### At TSE

- 2022-25: Ecosystem Management and Policy (M2, 30h CM).  
2022-25: Empirical Environmental Economics (PhD/M2, 15h CM).  
2022, 2024-25: Advanced Environmental Economics (PhD/M2, 15h CM) with Stefan Ambec (22), Mathias Reynaert.

## ACADEMIC PRESENTATIONS

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- 2024: Paris School of Economics (PSE). Banque de France–TSE Climate & Biodiversity Conference (Paris). Universidad de los Andes (Bogotá, CO). ANR FAST annual meeting (invited speaker; Saint-Malo). EAERE 2024 (29th Annual Conference of the European Association of Environmental and Resource Economists, Leuven). XXV BioEcon Conference (Cambridge, UK). LSE Environment Week (London). GAEL seminar (Grenoble).  
2023: ASSA (New Orleans). Alliance Summer School in Science and Policy (Paris). Oxford Environmental Economics Seminar (Oxford, UK). Agriculture, Technological Progress, and Biodiversity Workshop (Vancouver, CA). PSE Forest Water Energy Interdisciplinary Workshop (Paris). FAERE annual conference (Montpellier). SMART seminar (Rennes). XXVI Annual Conference of the Central Bank of Chile “Implications of Climate Change and Ecosystem Services Degradation for Macroeconomic and Financial Stability” (invited discussant, Santiago/online). Conférence sur la forêt (Université de Namur, BE). Aix-Marseille School of Economics (Marseille).  
2022: LSE Workshop in Environmental Economics (London). Causal Inference with Spatial Data workshop (Essen, DE). Planetary Management Seminar (online). Alliance Summer School in Science and Policy (Paris). Armenian Economics Association: Women in Economics (online). LSE Environment Week (London). Séminaire AEDE (Seminar on Empirical Legal Research on Environmental Law, Toulouse). Environmental Protection and Sustainability Forum (Graz, AT). Arizona State University CEESP seminar series (online).  
2019: NBER Summer Institute (Boston).  
2018: WCERE (Gothenburg).  
2017: ASSA (Chicago).

## OUTREACH

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- 2024: Panelist at the Commemorative Event of Judgement T-025 of 2004 by the Constitutional Court of Colombia “Constitutional Justice in Contexts of Conflict: Lessons from Judgement T-025 of 2004 and Reflections on the Future of Internal Forced Displacement” (Bogotá, CO). Groupe La Poste executive seminar. Lecture at [Université Populaire de Caussade](#) (Fête de la Science).  
2022: TSE inaugural lecture.

## GRANTS, FELLOWSHIPS, AWARDS

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- 2024: Agence Nationale pour la Recherche (ANR): Jeunes chercheuses - jeunes chercheurs (JCJC) (French National Research Agency, Junior Researcher Grant). CACTEE: “Consolidation Agricole : Conséquences Techniques, Economiques et Environnementales” (Economic and Environmental Consequences of Farm Consolidation). 240 k€, coordinator.  
2024: Agence Nationale pour la Recherche (ANR): Projet de recherche mono-équipe (PRME) (French National Research Agency, Single-Team Research Project grant). MLSEDV: “De l’apprentissage automatique à l’économétrie structurelle avec des variables discrètes.” 500 k€, team member (coordinator: Nour Meddahi, TSE).  
2022: Property and Environment Research Center (PERC): Lone Mountain Fellowship.  
2019-22: Beijer Institute (Royal Swedish Academy of Sciences): Beijer Young Scholar.

## SKILLS

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### Languages

*Mother tongue:* French.  
*Fluent:* English.  
*Notions:* Chinese (Mandarin), German, Spanish.

### Software

Mostly: R, Stata, Matlab, L<sup>A</sup>T<sub>E</sub>X, JavaScript (Earth Engine).  
Also: Python, Qgis, ArcGIS.

## SERVICE

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**Referee**

Science, PNAS, JEEM, the Economic Journal, Journal of Political Economy Microeconomics, American Journal of Agricultural Economics, Journal of Development Economics, Nature Sustainability, Management Science, World Development, Ecological Economics, European Economic Review, Environment and Development Economics, European Review of Agricultural Economics, Environmental Research Letters, Environmental Modeling and Assessment.

**Institutional**

PhD job market placement coordinator (TSE, 2023-24).

Elected member on the Conseil de la Recherche (TSE, 2023-).

**Organizer**

Departmental seminar (TSE, 2022-2025), weekly.

Departmental workshop (TSE, 2022-), weekly.

Sustainable Development book club (Columbia).

Internal training (Columbia): Improving communication skills in research to overcome bias.

**Co-organizer**

[Workshop on biodiversity economics](#) at TSE (2023, with Nicolas Treich).

Reading group in Environmental Economics and Finance (TSE, 2023-24, with Sophie Moinas, François Salanié, Stefan Ambec).

Alliance Summer School in Science and Policy (Columbia, 2015, 2016). Interdisciplinary PhD Workshop in Sustainable Development (Columbia, 2017). Interdisciplinary speed talks (Columbia, 2016, 2017).

**Other service**

Volunteer at the Santa Barbara Museum of Natural History (2020-21): created docent manual.

Judge in the 2017 NASPAA Student Simulation Competition (theme: [Global Food Security](#)).

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**OTHER EXPERIENCE****Research***Research assistant*

2016-2018: Wolfram Schlenker, Columbia University.

2017: Geoffrey Heal, Columbia University.

2016: Douglas Almond, Columbia University.

2013, 2014: David Laborde, International Food Policy Research Institute (IFPRI).

**Teaching***Teaching assistant*

2019: Human Ecology (PhD), Jeffrey Shrader.

2016, 2018: Environmental Science for Sustainable Development (PhD), John C. Mutter.

2015: Environmental Fundamentals (MA), Sara Tjossem.

*Other*

2015: Economic Analysis of Environmental Policies (MA), Christian Gollier. Grader.

2011: French as a foreign language, Alliance Française, Beijing. Instructor.

**Non-academic**

2015: Alternatives Économiques (summer internship), Paris.

2011-2012: EDF (Électricité de France), Beijing.