

Dr. Vilane Gonçalves Sales

Postdoctoral Researcher | Environmental Economics, Tourism & Climate Adaptation

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PROFILE

Highly motivated Postdoctoral Researcher specializing in environmental economics, climate change economics, and sustainable development policy. Expert in applied microeconometrics, machine learning, and large-scale geospatial data analysis (remote sensing, climate, socio-economic data). Research focuses on quantifying climate impacts, assessing vulnerability, and developing equitable adaptation strategies for natural disasters, coastal zones, and land use change. Marie Skłodowska-Curie Fellow with a proven track record of publishing in high-impact peer-reviewed journals and securing competitive research funding. Currently applying Statistical Topic Modeling and NLP to analyze policy shifts in sustainable tourism transformation.

RESEARCH INTERESTS

- Environmental Economics & Climate Change Economics
- Applied Microeconometrics for Sustainability (Causal Inference, Spatial Econometrics)
- Climate Impacts, Vulnerability Assessment & Adaptation Strategies
- Sustainable Tourism & Policy Integration
- Computational Methods: Machine Learning, AI, Remote Sensing, NLP

EDUCATION

PhD in Economics

University of Birmingham, United Kingdom (2015 – 2019)

- Thesis: Essays on the Economics and Policies of Deforestation in Brazil
- Funding: CAPES PhD Abroad Scholarship (Doutorado Pleno no Exterior)

MPhil in Management and Rural Development

Universidade Federal Rural de Pernambuco, Brazil (2013 – 2015)

- Distinction (First Place Award) | CAPES Master Scholarship

BA in Economics

Universidade Federal Rural de Pernambuco, Brazil (2008 – 2012)

- Academic Honors Diploma (First Class) | CAPES Scientific Initiation Fellowship

RESEARCH EXPERIENCE

Postdoctoral Research Fellow

Leibniz Centre for Tropical Marine Research (ZMT), Bremen, Germany (Aug 2025 – Present)

- Applying Statistical Topic Modeling and NLP to analyze policy shifts in sustainable tourism
- Investigating how tropical destinations are reimagining tourism post-pandemic
- Bridging data science, climate adaptation, and sustainable development for evidence-based policy

Research Collaborator

CMCC Foundation – Euro-Mediterranean Center on Climate Change, Venice, Italy (Jun 2025 – Present)

- Continuing collaborative research on climate impacts and coastal vulnerability

Marie Skłodowska-Curie Postdoctoral Fellow (SEA-LIMITHS Project)

Ca' Foscari University of Venice & CMCC Foundation, Italy (Jun 2023 – May 2025)

- Led interdisciplinary project (Grant 101106544) on economic impacts of sea-level rise on Italy's hospitality sector
- Developed large geospatial databases integrating remote sensing, AI, and economic data
- Applied spatial analysis, machine learning, and CGE modeling for vulnerability and adaptation cost estimation
- Translated findings into policy-relevant insights for sustainable coastal management

Postdoctoral Researcher

Oeschger Centre for Climate Change Research & University of Bern, Switzerland (Jul 2019 – Jun 2023)

- Conducted independent research in environmental econometrics and climate change economics
- Developed novel methodologies including Extreme Value Theory applications for disaster risk
- Published peer-reviewed research and supervised master's students

PUBLICATIONS

Peer-Reviewed Articles

- Sales, V.G. (2025). "Sea Level Rise: Scientific Evidence, Socio-Economic Realities, and Adaptation Challenges for Coastal Communities." *Sea Level Rise: Implications for Human Rights, Security and Peace*, 17-60.
- Sales, V.G. (2025). "A coastal hospitality sector database for vulnerability assessments in Veneto and Emilia-Romagna, Italy." *Data in Brief*, 111921.
- Sales, V.G. (2023). "Assessing the impact of governance policies on landslide risk in Brazilian municipalities." *International Journal of Disaster Risk Reduction*, 99:104058. [15 citations]
- Sales, V.G. & Strobl, E. (2023). "Using extreme value theory to assess the mortality risk of tornado outbreaks." *International Journal of Disaster Risk Science*, 14(1):14-25.
- Sales, V.G. (2023). "Modelling non-linear deforestation trends for an ecological tension zone in Brazil." *Science of Remote Sensing*, 7:100076.
- Fornalé, E., Cristani, F. & Sales, V.G. (2022). "Sustainable management of fisheries resources in a time of climate change: An overview of initiatives in the Mediterranean region." *Italian Yearbook of International Law Online*, 31(1):171-187.
- Sales, V.G., Strobl, E. & Elliott, R.J.R. (2022). "Cloud cover and its impact on Brazil's deforestation satellite monitoring program: Evidence from the cerrado biome of the Brazilian Legal Amazon." *Applied Geography*, 140:102651. [18 citations]

Working Papers & Manuscripts Under Review

- Sales, V.G., Denamiel, C. & Bosello, F. (2025). "Impact of climate change on the direct economic costs of coastal hazards to hospitality: a meter-scale experiment in the Adriatic basin." [Presented at EGU General Assembly 2025]
- Sales, V.G. "Spatial Analysis and Risk Assessment of Coastal Hospitality in Northern Italy." [Under Review]
- Sales, V.G. "When Nature Strikes Tourism: Tourism Asset Protection and Policy Integration Analysis." [In Progress]

TEACHING EXPERIENCE

- **Lecturer (MSc):** Environmental Econometrics, University of Bern (2021–2022)
- **Lecturer (MSc):** Environmental Economics for Non-Economists, University of Bern (2019–2020)
- **Graduate Teaching Associate:** Political Economy and Economic Policy, University of Birmingham (2019)
- **Teaching Assistant:** Environmental Economics; Sustainable Development, University of Birmingham (2017–2018)
- **Lecturer:** Economics and Management, Universidade Federal Rural de Pernambuco (2013–2015)

TECHNICAL SKILLS

- **Econometrics & Statistics:** Applied Microeconometrics, Causal Inference, Panel Data, Spatial Econometrics, Time Series, Extreme Value Theory, GAMs, Survival Analysis
- **Computational:** Python (pandas, geopandas, scikit-learn, statsmodels), R (tidyverse, sf, lme4), Stata, MATLAB, ArcGIS/QGIS, SQL, Git, HPC environments
- **Data Analysis:** Large Dataset Management, Machine Learning (Supervised & Unsupervised), AI Applications, Remote Sensing, NLP, Statistical Topic Modeling
- **Languages:** Portuguese (Native), English (Fluent), Italian (Professional Working), Spanish (Intermediate), German (Elementary A2/B1)

PROFESSIONAL NETWORKS & AFFILIATIONS

COST Action CA22122 – RethinkBlue

Rethinking the Blue Economy: Socio-Ecological Impacts and Opportunities (Oct 2023 – Oct 2027)

- Member, Working Group 5: Climate Change & Natural Hazards
- Contributing to interdisciplinary research on socio-ecological impacts of blue economy transitions

Earth System Governance Project

Global Research Alliance (2025 – Present)

- Research Fellow (Voluntary)
- Contributing expertise in climate adaptation, environmental economics, and AI applications for governance research
- Engaged with Justice and Allocation research lens and Anthropocene contextual conditions

AWARDS & FELLOWSHIPS

- Marie Skłodowska-Curie Postdoctoral Fellowship, European Commission (2023–2025)
- PhD Abroad Scholarship (Doutorado Pleno no Exterior), CAPES Brazil (2015–2019)
- Master Scholarship – First Place Award, CAPES Brazil (2013–2015)
- Scientific Initiation Fellowship (PIBIC), CAPES/CNPq Brazil (2008–2012)

SUPERVISION

- **MA Advisor:** Elise Moret, University of Bern (Topic: Extreme Value Analysis of Avalanches)
- **MBA Co-supervisor:** Laisa G. Sales (Topic: Sustainability & Design Thinking)

CITATION METRICS

Google Scholar: 40 citations | h-index: 2 | i10-index: 2

REFERENCES

- **Prof Marie Fujitani**, Leibniz – ZMT – marie.fujitani@leibniz-zmt.de
- **Prof. Francesco Bosello**, Ca' Foscari University of Venice – francesco.bosello@unive.it
- **Prof. Eric Strobl**, University of Bern – eastrobl13@gmail.com
- **Dr. Cléa Denamiel**, Ruđer Bošković Institute – clea.Lumina.Denamiel@irb.hr