Dr. Vilane Gonçalves Sales

Postdoctoral Researcher | Environmental Economics, Tourism, and Climate Adaptation

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Profile

Postdoctoral researcher in environmental economics, climate change economics, and sustainable development policy. Methodological focus on applied microeconometrics, machine learning, and large-scale geospatial analysis, drawing on remote sensing, climate, and socio-economic data sources. Current and recent work examines climate impacts, vulnerability, and adaptation strategies for natural disasters, coastal zones, and land-use change, with empirical settings spanning Brazil, the coastal Mediterranean, and tropical and coastal countries more broadly. Current research applies statistical topic modelling and natural language processing to analyse policy shifts in sustainable tourism transformation. Marie Skłodowska-Curie Postdoctoral Fellow (2023–2025).

Research Interests

- Environmental economics and climate change economics
- Applied microeconometrics for sustainability (causal inference, spatial econometrics)
- Climate impacts, vulnerability assessment, and adaptation strategies
- Sustainable tourism and 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*, in Portuguese)

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 Honours Diploma (First Class); CAPES Scientific Initiation Fellowship

Research Experience

Postdoctoral Research Fellow *Leibniz Centre for Tropical Marine Research (ZMT), Bremen, Germany* (Aug 2025 – Present) - Leads Work Package 1 (WP01) of the STEPS project (Sustainable Tourism Evolving Paradigms), covering data science and quantitative social science. - Applies statistical topic modelling and natural language processing to analyse policy shifts in sustainable tourism. - Examines how tropical destinations have reframed tourism in the post-pandemic period. - Integrates data science, climate adaptation, and sustainable development for evidence-based policy work.

Research Collaborator *CMCC Foundation – Euro-Mediterranean Center on Climate Change, Venice, Italy* (Jun 2025 – Present) - Continues collaborative research on climate impacts and coastal vulnerability.

Marie Skłodowska-Curie Postdoctoral Fellow (SEA-LIMITHS Project) *Ca' Foscari University of Venice and CMCC Foundation, Italy* (Jun 2023 – May 2025) - Led the interdisciplinary project (Grant 101106544) on the 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 modelling for vulnerability and adaptation cost estimation. - Translated findings into policy-relevant insights for sustainable coastal management.

Postdoctoral Researcher *Oeschger Centre for Climate Change Research and University of Bern, Switzerland* (Jul 2019 – Jun 2023) - Conducted independent research in environmental econometrics and climate change economics. - Developed methodological contributions, including extreme value theory applications for disaster risk. - Published peer-reviewed research and supervised master's students.

Publications

Peer-Reviewed Articles and Book Chapters

Sales, V.G. (2026). Divergent risk patterns across coastal hospitality sectors in the Northern Adriatic. *Open Research Europe*, 6:190 [version 1; peer review: 2 approved, 2 approved with reservations]. https://doi.org/10.12688/openreseurope.23489.1

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. [17 citations]

Sales, V.G. and 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. and 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. and 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. [25 citations]

Working Papers and Manuscripts Under Review

Sales, V.G., Denamiel, C., Standardi, G. and Bosello, F. From Asset to Economy: Coastal Flood Damage, Adaptation, and General Equilibrium Effects in the Italian Adriatic. *[Final draft; earlier version presented at EGU General Assembly 2025]*

Sales, V.G. and Fujitani, M. 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 and statistics:** applied microeconometrics, causal inference, panel data, spatial econometrics, time series, extreme value theory, generalised additive models (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 and unsupervised), AI applications, remote sensing, NLP, statistical topic modelling.
- **Languages:** Portuguese (native), English (fluent), Italian (professional working), Spanish (intermediate), German (elementary, A2/B1).

Professional Networks and Affiliations

COST Action CA22122 — RethinkBlue *Rethinking the Blue Economy: Socio-Ecological Impacts and Opportunities* (Oct 2023 – Oct 2027) - Member, Working Group 5: Climate Change and Natural Hazards. - Contributing to interdisciplinary research on the socio-ecological impacts of blue economy transitions.

Earth System Governance Project *Global Research Alliance* (2025 – Present) - Research Fellow (voluntary). - Contributes expertise in climate adaptation, environmental economics, and AI applications for governance research. - Engaged with the Justice and Allocation research lens and the Anthropocene contextual conditions. - Member, Organizing Committee, South-South Initiative (SSI); compiles a monthly round-up of funding calls for the group (2026 – Present).

Service

ZMT Early-Career Representatives *Leibniz Centre for Tropical Marine Research (ZMT), Bremen* (Apr 2026 – Present) - Member of the representatives group; monthly meetings on onboarding, working conditions and institutional structures for early-career researchers.

Awards and Fellowships

- Leibniz Mentoring Programme 2026/27, Leibniz Association (selected 2026; programme runs to January 2028).
- Marie Skłodowska-Curie Postdoctoral Fellowship, European Commission (2023–2025).
- PhD Abroad Scholarship (*Doutorado Pleno no Exterior*, in Portuguese), 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 and design thinking.

Citation Metrics

- Google Scholar: 60 citations | h-index: 3 | i10-index: 2 (as of October 2026)
- ResearchGate: 46 citations | h-index: 3 | Research Interest Score: 34.2 (as of October 2026)

References

- **Prof. Marie Fujitani**, Leibniz Centre for Tropical Marine Research (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