

Daniel S Silva

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PROFILE

Land Systems Scientist with over 15 years working across sustainability, climate finance, restoration, and environmental policy. Experience advising institutions and investors on sustainability risks, economic opportunities, deforestation-free supply chains, restoration economics, and climate-smart land-use strategies. Author of scientific papers about the Amazon and Cerrado regions, combining quantitative analysis and stakeholder key information to support decision-making for sustainable landscapes.

EDUCATION

Ph.D. in Geography & Environment. University of Texas at Austin, 2021 to Fall 2025.

M.A. in Geography & Environment. University of Texas at Austin, 2019 to 2021.

B.S. in Economics. University of Amazonia (UNAMA), 2006 to 2010.

ACADEMIC APPOINTMENTS

Texas A&M University, United States.

Position: Lecturer, January 2026 to present date.

Teach undergraduate courses in Environmental Systems Science, develop a new course in Environmental Regulation for Geosciences, and supervise student capstone projects on sustainability and applied environmental analysis.

University of Texas at Austin, United States.

Position: Graduate Research Assistant, 2025.

I Supported a project on avocado supply chain, and population displacement in Mexico. This included Data Analysis & Spatial Modeling, and creation of dashboards to decision-makers.

University of Texas at Austin, United States.

Position: Teaching Assistant, from 2019 to 2024.

I lead laboratory sections to undergrad students, in the topics of Spatial Data Analysis, Geographic Information Systems (GIS), Remote Sensing, and Human Geography.

APPLIED & PRIVATE SECTOR EXPERIENCE

The Amazon Environmental Research Institute (IPAM), Brasilia, Brazil.

Position: Researcher, from 2017 to 2019.

I evaluated economic incentives for the implementation of environmental laws and agricultural intensification in Brazil; and developed a deforestation risk model and opportunity cost mapping to Amazon to implement a program of payment for conservation in private lands, known as Conserv Program.

International Institute for Sustainability (IIS), Rio de Janeiro, Brazil.

Position: Business analyst, from 2014 to 2016.

I worked on the writing and the analysis of reports/papers to inform the economic benefits of agricultural intensification, and the restoration of biomes such as the Atlantic Rainforest.

Amazon Institute of People and the Environment (Imazon), Belem, Brazil.

Position: Technical Coordinator of projects, from 2010 to 2014.

I coordinated research about the economic performance of farms in the Amazon and analyzed the drivers of deforestation (such as rural credit), then wrote technical reports to support state-level government agencies.

SELECTED PUBLICATIONS (from >30)

Publication record: 15 peer-reviewed articles, more than 900 citations. Reviewer for journals including Global Environmental Change, One Earth and Forest Policy & Economics.

Peer-review journals:

Silva, D. S., & Arima, E. (2025). When Land Becomes Capital: Farmland Financialization and Sustainability in Brazil. *Environmental Research Letters*. <https://doi.org/10.1088/1748-9326/ae0faf>

Silva, D., Prolo, C., Braga, P., Witzke, A., Gomes, T., Velez, L. (2025) Corporate emissions and climate targets: Insights from high-emitting firms in Brazil's transition to sustainability. *PLOS Sustain Transform* 4(9): e0000198. <https://doi.org/10.1371/journal.pstr.0000198>

Silva, D. S., & Nunes, S. (2025). Leakage Effects from Reforestation: Estimating the Impact of Agricultural Displacement for Carbon Markets. *Land*, 14(5), 963.

Silva, D. S., & Arima, E. Y. (2023). Sustainability Consequences of Making Land Change Decisions Based on Current Climatology in the Brazilian Cerrados. *Land*, 12(4), 914.

Silva, D. S., Arima, E. Y., dos Reis, T. N., & Rattis, L. (2023). Temperature effect on Brazilian soybean yields, and farmers' responses. *International Journal of Agricultural Sustainability*, 21(1), 2173370.

Stabile, M.C.C., Guimarães, A.L., **Silva, D.S.**, Ribeiro, V., Macedo, M.N., Coe, M.T., Pinto, E., Moutinho, P., Alencar, A. (2019). Solving Brazil's land use puzzle: Increasing production and slowing Amazon deforestation. *Land Use Policy*.

Latawiec, A. E., Strassburg, B. B., **Silva, D.**, Alves-Pinto, H. N., Feltran-Barbieri, R., Castro, A., & Beduschi, F. (2017). Improving land management in Brazil: A perspective from producers. *Agriculture, Ecosystems & Environment*, 240, 276-286.

Strassburg, B. B. N., Barros, F. S. M., Crouzeilles, R., Iribarrem, A., Santos, J. S. d., **Silva, D.**, Sansevero, J. B. B., Alves-Pinto, H. N., Feltran-Barbieri, R. and Latawiec, A. E. (2016). The role of natural regeneration to ecosystem services provision and habitat availability: a case study in the Brazilian Atlantic Forest. *Biotropica*, 48: 890–899. Doi:10.1111/btp.12393

Conference papers:

Savian, G. C. P. S., Stabile, M. C. C., Moutinho, P. R. S., Siqueira, E. D., Russo, G., Ribeiro, J. P., Ribeiro, V., **Silva, D. S.**, Mitraud, S., Gomes, J., Cardoso, A., Espinoza, J., Cabral, R., Lessa Silveira, D., Disarz, R., Mastrangelo, J. P., Reydon, B., & Siqueira, G. P. (2019). Land tenure regularization in the Brazilian Amazon: Perspectives on identifying social economic and environmental variables for assessing its impacts. Conference: Land and Poverty Conference 2019, at Washington, DC. Available at: https://www.researchgate.net/publication/332275679_Land_tenure_regularization_in_the_Brazilian_Amazon_Perspectives_on_identifying_social_economic_and_environmental_variables_for_assessing_its_impacts

Reis, T., Russo, G., Ribeiro, V., Moutinho, P., Guimarães, A., Stabile, M., Alencar, A., Crisostomo, A. C., **Silva, D.**, & Shimbo, J. (2017). Climate challenges and opportunities in the Brazilian Cerrado. Paper presented at the Conference: UNFCCC COP23 - Side events at: Bonn, Germany. Available at: <https://ipam.org.br/wp-content/uploads/2017/11/PB-Cerrado-COP23-web.pdf>

Barreto, P. & **Silva, D.** (2010). Will cattle ranching continue to drive deforestation in the Brazilian Amazon? Paper presented at the International Conference on environment and natural resource management in developing economies and transition, in Clermont Ferrand, France. Available in: <http://www.cerdi.org/uploads/sfCmsContent/html/323/Barreto.pdf>.

Technical reports:

Fama re.capital. (2025). Regenerative Agriculture, Climate Resilience, and Productivity: Lessons from the SLC Agrícola Case. Available at: <https://famarecapital.com/en/project/estudo-agricultura-regenerativa-resiliencia-climatica-produtividade-caso-slc-agricola/>

Silva, D., Nunes, S. (2017). Evaluation and economic modeling of forest restoration in the State of Pará, eastern Brazilian Amazon (p. 92). Belém: Imazon.

Silva, D., Stabile, M., Bauch, S. (2017). Instrumentos financeiros para a agricultura sustentável: O estudo de caso do Mato Grosso. DOI: 10.13140/RG.2.2.28490.21442 . Available at: https://www.researchgate.net/publication/328562903_Instrumentos_financeiros_para_a_agricultura_sustentavel_O_estudo_de_caso_do_Mato_Grosso

Silva, D., & Barreto, P. (2014). O potencial do Imposto Territorial Rural contra o desmatamento especulativo na Amazônia [study cited in Mongabay (4 nov 2014): [Reducing tax evasion could help to save the Amazon](#)]. Belém: Imazon.

Barreto, P., Brandão Jr, A., Martins, H., **Silva, D.,** Souza Jr, C., Sales, M., & Feitosa, T. (2011). Risco de desmatamento associado à hidrelétrica de Belo Monte [Required study for the mitigation policies related to the Belo Monte Hydropower Dam in the Amazon]. Belém: Imazon.

AWARDS AND FELLOWSHIPS

University Graduate Continuing Fellowship for 2024-2025

David L. Huff Memorial Graduate Fellowship, 2022

Connect Program Fellowship, 2022

International Education Fee Scholarship, 2022

Global Career Launch Program, 2022

AAG Council Award for Best Graduate Student Paper at the Regional Division meeting, 2021

PRESENTATIONS IN CONFERENCES AND PANEL SESSIONS

Key Speaker at Texas A&M Colloquium to grad students of Geography, 2026.

American Association of Geographers (AAG) meetings of 2021, 2022, and 2023

Southwest AAG meetings of 2019, 2020, 2021, and 2022

Latin American studies (LILLAS), University of Texas, Austin, 2020

Brazilian Congress, panel on Brazilian Rural Environmental Registry, Brasilia, Brazil, 2017

VOLUNTARY AND PROFESSIONAL SERVICE

- Since 2023 to present, I review for scientific journals, such as Global Environmental Change, One Earth, Forest Policy and Economics, and others.
- In 2023, I served as a volunteer reviewer for Hispanic Scholarship Consortium.
- I have work in partnership with other scholars in Brazil (such as ITV and UFMG) to understand drivers of land use change.

TECHNICAL SKILLS & EXPERTISE

Languages: English (fluent), and Portuguese (native speaker).

Programming and reproducible workflows: R and Python for geospatial data cleaning, spatial panel construction, data visualization, statistical modeling, reproducible research workflows.

Software and platforms: ArcGIS Pro, QGIS, Google Earth Engine, R spatial packages, Python geospatial stack, Tableau.

Applied domains: Climate finance and nature-based investments; Agricultural and forest-risk supply chains; Investment readiness assessment; Deforestation and land-use risk analysis; Restoration economics and carbon markets; Spatial intelligence and GIS-based decision support; Environmental economics and policy evaluation; Sustainable agriculture and landscape transitions.