

Samuel A. Levy

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PERSONAL INFORMATION

Date of birth: 21st June 1993
Nationality: British (UK) & German

EDUCATION

2019 – 2022 **ETH Zürich**
PhD, Department of Humanities, Social & Political Sciences
Dissertation: Can companies end deforestation? The limitations and potential opportunities of zero-deforestation commitments in the Brazilian Amazon and Cerrado <https://doi.org/10.3929/ethz-b-000539299> . Supervisor: Prof. Rachael Garrett (U of Cambridge/ETH Zürich)

2017 - 2019 **Boston University**
PhD Student, Department of Earth & Environment (transferred to ETH Zürich)

2015 - 2016 **University of Oxford**
MSc Environmental Change & Management (Distinction)

2011 - 2014 **University of Cambridge**
BA (Hons) Social Anthropology (2.1)

INSTITUTIONAL APPOINTMENTS

2020 – current **New York University**
Postdoctoral Research Associate, Department of Environmental Studies
Leading project on conservation impacts of Indigenous land tenure formalization in Indonesia

PROFESSIONAL EXPERIENCE

2017 **Global Canopy, Oxford, UK** – Research Intern (Supply Chains)

2016-2017 **Proforest Ltd, Oxford, UK** – Environmental Consultant

2016 **University of Oxford, Oxford, UK** – Research Assistant, Oxford Ecosystems Lab

2013 – 2016 **Forestry Commission England, London, UK** – Project Manager, Forest survey (Oak Processionary Moth)

2009 - 2014 **Coombe Forestry Ltd, London, UK** – Sustainable Forester

FIELD EXPERIENCE

2019-2020 **Pará, Brazil** – Expedition leader
Co-led team of 8 field assistants to carry out questionnaire on household/farm-level production, assets, supply chain linkages and perceived wellbeing for 360 randomly selected farms in four municipalities in Pará state.

2019 **Pará, Brazil** - Expedition leader
Made local contacts as basis for larger field season in late 2019 as well as trialled surveys with soy & cattle farmers using mobile survey platform KoboToolbox. Project: “Assessing the Influence of Zero-Deforestation Supply-Chain Commitments on the Conservation of Ecosystems” (NSF award #1739253) PIs: Dr Rachael Garrett, Dr Kimberly Carlson, Dr Nelson Villoria

2018 **Matopiba region, Brazil** – Expedition Leader
Surveys & interviews with soy and cattle farmers as well as experts from industry, government and civil society. Project: “Assessing the Influence of Zero-Deforestation Supply-Chain Commitments on the Conservation of Ecosystems” (NSF award #1739253) PIs: Dr Rachael Garrett, Dr Kimberly Carlson, Dr Nelson Villoria

2018 **Acre & Rondônia, Brazil** – Field Assistant
Surveys & interviews with various types farmers. Project: “Improving agricultural practices for sustainable development” (NSF award #1602747) PI: Dr Rachael Garrett

2016 **Java & West Kalimantan, Indonesia** – Masters research (independent)
Semi-structured interviews with experts from industry, government and civil society as well as field work at a palm oil plantation and 3 surrounding villages using surveys, interviews & ethnographic methods. Advisors: Dr Tom Thornton & Dr Constance McDermott

TEACHING EXPERIENCE

2021 **Supervision of master’s thesis on systematically reviewing the drivers of deforestation across the Amazon basin**
Supervising ETH Zurich master’s student’s thesis systematically reviewing the proximate and underlying drivers of deforestation across the entire Amazon basin, including an assessment of existing and historic policies and a cross-country comparison. Role incl. supervision meetings, assisting the creation of research questions, reviewing R code and providing comments and feedback on thesis drafts and theoretical framework.

- 2020 **Supervision of master's thesis on climate resilience in the Eastern Amazon, Brazil**
Supervising ETH Zurich master's student's thesis examining and comparing impacts of social policies and environmental practices on climate resilience. Role incl. setting a reading list, weekly supervision meetings, assisting the creation of research questions, reviewing R code and providing comments and feedback on thesis drafts.
- 2020 **Guest Lecturer & Teaching Assistant, Policy & Economics of Ecosystem Services, ETH Zürich**
Participated in teaching and group discussion, included lecturing on private environmental governance in a virtual (Zoom) class setting for the class "Policy & Economics of Ecosystem Services", a masters-level class with 46 students.
- 2019 **Supervision of master's thesis on zero-deforestation commitments in Matopiba, Brazil**
Supervised Boston University master's student's honors thesis which used data collected in 2018 field season, incl. set a reading list along with weekly meetings to discuss each paper, assisted with the creation of research questions and provided comments and feedback on three drafts of thesis.
- 2018 **Teaching Assistant for Global Environmental Change & Sustainability (CAS EE 100), Boston University**
Lead group discussions and participated in classroom teaching, and graded essays, problem sets and final papers for introductory geography class GE 100, a class of over 100 students

AWARDS

- 2022 **Postdoctoral Travel Grant**, New York University, USA
- 2021 **International Geneva Award**, Swiss Network for International Studies, Switzerland (CHF 5,000)
- 2020 **Global Young Scientists Summit delegate**, National Research Foundation, Singapore
- 2016 **Environmental Change Institute Research Award**, University of Oxford, UK
- 2016 **Oriel College Travel Award**, University of Oxford, UK
- 2014 **Ernest and Carmen Frankl Memorial Award**, University of Cambridge, UK

MEDIA APPEARANCES

- 2021 **Swissinfo** "Why is the Amazon still at risk despite 'zero deforestation' commitments?" [tinyurl.com/27bdnq46](https://www.swissinfo.ch/eng/why-is-the-amazon-still-at-risk-despite-zero-deforestation-commitments-2021-08-10)
- 2022 **Mongabay** "Pay or punish? Study looks at how to engage with farmers deforesting the Cerrado" [tinyurl.com/2p8uext3](https://www.mongabay.com/2022/08/22/pay-or-punish-study-looks-at-how-to-engage-with-farmers-deforesting-the-cerrado/)

PUBLICATIONS

Published:

- Hänggli, A. **Levy, S.A.**, F. Cammelli, J. Brandão, X. Rueda, C. I. Bovolo, D. Armenteras & R.D. Garrett "A systematic comparison of deforestation drivers and policy impacts effectiveness across the Amazon biome" *Environmental Research Letters* (May 10, 2023) <https://doi.org/10.1088/1748-9326/acd408>
- Levy, S.A.**, F. Cammelli, G. Gibbs, J. Munger & R.D. Garrett "Deforestation in the Brazilian Amazon could be halved by scaling up the implementation of cattle zero-deforestation commitments" *Global Environmental Change* 80 (May 1, 2023) <https://doi.org/10.1016/j.gloenvcha.2023.102671>
- Garrett, R. D., J. Grabs, F. Cammelli, F. Gollnow, **S.A. Levy** "Should Payments for Ecosystem Services be used to implement zero-deforestation supply chain policies? The case of soy in the Brazilian Cerrado" *World Development* 152 (April 1, 2022) <https://doi.org/10.1016/j.worlddev.2022.105814>
- Cammelli, F., **S. A. Levy**, J. Grabs, J. Valentim & R.D. Garrett, "Effectiveness-equity tradeoffs in enforcing exclusionary supply chain policies: Lessons from the Amazonian cattle sector" *Journal of Cleaner Production* 332 (January 15, 2022) <https://doi.org/10.1016/j.jclepro.2021.130031>
- Grabs, J., F. Cammelli, **S.A. Levy** & R. D. Garrett. "Designing effective and equitable zero-deforestation supply chain policies," *Global Environmental Change* 70 (January 1, 2022) <https://doi.org/10.1016/j.gloenvcha.2021.102357>
- Garrett, R.D., F. Cammelli, J. Ferreira. **S. A. Levy**, J. Valentim & I. Viera "Forests and sustainable development in the Brazilian Amazon: History, trends and future prospects" *Annual Review of Environment and Resources* 46 (April 22, 2021): 2.1-2.28. <https://www.annualreviews.org/doi/10.1146/annurev-environ-012220-010228>
- Garrett, R. D., **S. A. Levy**, F. Gollnow & X. Rueda "Have food supply chain policies improved forest conservation and rural livelihoods?" *Environmental Research Letters* (January 28, 2021) <https://iopscience.iop.org/article/10.1088/1748-9326/abe0ed>
- Garrett, R. D., **S. A. Levy**, K. M. Carlson, T. A. Gardner, J. Godar, J. Clapp, P. Dauvergne, et al. "Criteria for Effective Zero-Deforestation Commitments." *Global Environmental Change* 54 (January 1, 2019): 135–47. <https://doi.org/10.1016/j.gloenvcha.2018.11.003>.
- Garrett, R. D., X. Rueda, **S. A. Levy**, J.F. Bermudez Blanco, S. Shah. "Measuring impacts of supply chain initiatives for conservation: focus on forest-risk food commodities." *Meridian Institute*. Washington, D.C. (June 1, 2018). <https://www.evidensia.eco/resources/273/measuring-impacts-of-supply-chain-initiatives-for-conservation-focus-on-forest-risk-food-commodities/>

In Preparation:

- Levy, S.**, A.V. Garik, & R.D. Garrett "Current conditions make the effectiveness of corporate zero-deforestation policies unlikely in the Brazilian Cerrado" *in preparation for Geoforum*

Levy, S.A., Stigler, M., E. zu Ermgassen, T. Garder & R.D. Garrett “Quantifying the impact of indirect suppliers on the effectiveness of cattle zero deforestation commitments in Brazil” *in preparation for PNAS*

Cammelli, F., **S. Levy,** F. Gollnow, E. Bullock & R.D. Garrett “Zero-deforestation policies are failing to reduce forest degradation in the Brazilian Amazon: lessons from the cattle and soy sectors of the Brazilian Amazon” *in preparation for Nature Sustainability*

PRESENTATIONS & CONFERENCES

Invited Presentations:

- 05/2023 **Cambridge Conservation Initiative**, Cambridge UK. “The role of Indigenous land tenure formalization for conservation in Indonesia”
- 03/2023 **AAG Conference**, Denver, CO, USA. “The role of Indigenous land tenure formalization for conservation in Indonesia”
- 10/2022 **FLARE Conference**, Rome, Italy. “The livelihood and environmental impacts of incomplete supply chain policy implementation in the Brazilian cattle sector”
- 11/2021 **Trase Research Dialogue #6**, Stockholm, Sweden/online. “The Role of Market Share on the Effectiveness of ZDCs for Cattle”
- 08/2021 **59th Congresso da Sociedade Brasileira de Economia, Administração e Sociologia Rural (SOBER) & 6th Econtro Brasileiro de Pesquisadores em Cooperativismo (EBPC) 2021**, São Paulo, Brazil/online. “A melhoria da sustentabilidade das cadeias de valor globais” (Improving the Sustainability of Global Value Chains)
- 05/2021 **Swiss Knowledge Exchange on Research on Agriculture, Conservation & Development Issues in Forest-Risk Supply Chains**, ETH Zürich, Switzerland – “The role of market share on the effectiveness of zero deforestation commitments”
- 03/2021 **Fourth Global Land Programme Telecoupling Webinar on Governing Telecoupling**, GLP Telecoupling working group – “The role of market share on the effectiveness of zero deforestation commitments”
- 09/2020 **2020 Conference on Earth System Governance (Delayed due to COVID-19)**, Bratislava, Slovakia – 2 presentations: “Livelihood outcomes in smallholder schemes in Indonesian palm oil: An examination of recent policy reforms” & “Quantifying the impact of indirect suppliers on the effectiveness of cattle zero deforestation commitments in Brazil”
- 05/2020 **6th Annual Duck Family Graduate Workshop on Environmental Politics and Governance**, University of Washington, WA, USA – “The role of market share on the effectiveness of zero deforestation commitments in the Brazilian Amazon”
- 04/2020 **International Conference on Learning Representations 2020 Workshop Tackling Climate Change with Machine Learning**, ETH Zürich, Switzerland – “How machine learning can help prevent commodity-driven deforestation”
- 10/2019 **Invited Guest Speaker at the Instituto do Homem e Meio Ambiente da Amazônia (Imazon)**, Belem, Brazil – “Uma abordagem sistemática pantropical para estudar compromissos de desmatamento zero” (A systematic approach to study zero-deforestation commitments across the tropics)
- 04/2019 **Global Land Programme 4th Open Science Meeting**, Bern, Switzerland – “The Impacts of zero-deforestation commitments on deforestation and slaughterhouse siting behaviours”
- 12/2018 **Land Use & Livelihoods Initiative Student Conference**, Boston University, MA, USA – “Community-company partnerships for smallholders: An examination of recent policy reforms, Indonesia”
- 11/2018 **Sustainability & Development Conference**, Ann Arbor, MI, USA – “Livelihood outcomes in smallholder schemes in Indonesian palm oil: An examination of recent policy reforms”
- 08/2018 **Global Canopy Seminar Series**, Oxford, UK – “The impacts of zero-deforestation commitments on deforestation & slaughterhouse siting behaviors: evidence from the Brazilian cattle sector”
- 03/2017 **Sustainability & Development Seminar**, University of Oxford, UK – “The livelihood outcomes of Kemitraan smallholder schemes: Evidence from Kalimantan, Indonesia”
- 02/2016 **21CC Student Conference**, University of Oxford, UK – “The cross-cutting nature of challenges in the 21st century” (also conference director)

Invited workshops/trainings:

- 06/2021 **Summer Institute in Computational Social Science**, ETH Zürich, Switzerland.
Project: “Using web scraping and machine learning techniques to identify and spatialize cattle supply chains in the Brazilian Amazon”

01/2018 **Qualitative Comparative Analysis workshop**, McGill, Montreal, Canada
06/2018 **Assessing the potential influence of zero-deforestation corporate supply chain commitments on tropical land cover workshop**, SESYNC, Annapolis, MD, USA
11/2017 **Land Use Spillovers & Leakage workshop**, ZEF, Berlin, Germany
07/2017 **SESYNC Summer Institute on Cyberinfrastructure & Data Science**, Annapolis, MD, USA

REVIEWS

World Development (1 review), Frontiers (1 review), Environmental Research Letters (3 reviews)

OTHER SKILLS

LANGUAGES English (native), Portuguese (advanced)

DATA SKILLS R (advanced), Python (intermediate), ArcGIS (advanced), QGIS, (advanced) Google Earth Engine (advanced), Open Data Kit (advanced)

REFERENCES

Prof Rachael Garrett – rgarrett@ethz.ch (Cambridge University & ETH Zürich)

Prof Kimberly Carlson – kc143@nyu.edu (New York University)

Prof Mari Mulyani – mari.mulyani@ouce.ox.ac.uk (Oxford University & University of Indonesia)