

# Leonardo Calzada

PH.D. CANDIDATE

Department of Geography, Rutgers University

+1 732 875 2745 | [leonardo.calzada@rutgers.edu](mailto:leonardo.calzada@rutgers.edu) | [leocalzada](#) | [leonardocalzada](#)

## Education

### Rutgers University

New Jersey, USA

PH.D. CANDIDATE, GEOGRAPHY

2020–Present

- Dissertation title: “Trailblazing development: the effects of Sembrando Vida [Sowing Life] on forest management and forest degradation patterns in the Calakmul—Sian Ka’an Biological Corridor, Mexico”

### National Autonomous University of Mexico

Mexico City, Mexico

M.Sc., BIOLOGICAL SCIENCES

2017–2019

- Thesis title: “Assessment of forest cover change in two communities under Payment for Hydrological Environmental Services Program in the Basin of Mexico” (in Spanish)

### National Autonomous University of Mexico

Mexico City, Mexico

B.Sc., BIOLOGY

2011–2015

- Thesis title: “Socio-environmental analysis of land use/land cover change in the Oaxacan isthmus, Mexico” (in Spanish)

## Professional experience

### Mexican Biosafety Commission (CIBIOGEM) | National Council for Science and Technology

Mexico

DEPUTY DIRECTOR OF BIOSAFETY COMMUNICATION

2019–2020

- Responsible for the National Biosafety System for GMOs
- Member of the Mexican delegation and manager of the Mexican portal at the United Nations Convention on Biological Diversity.

### National Biodiversity Commission (CONABIO)

Mexico

CARTOGRAPHER

2016–2017

- Strategy for the Conservation and Sustainable Use of Biodiversity in Oaxaca State.
- Biodiversity in Coahuila: A Status Study
- Biodiversity in Mexico City
- Mexico’s National Biodiversity Strategy

### Mexico City Secretary of the Environment

Mexico

SPATIAL MODELING SPECIALIST

2015–2016

- External evaluation of the Program of Support Funds for the Conservation and Restoration of Ecosystems through Social Participation (Proface).
- External evaluation of the program of redistribution for the conservation of environmental services (PRCSA)

### Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)

Mexico

FIELD ASSISTANT

2015

- Parc National Nevado de Toluca: un laboratoire socio-environnemental pour des innovations politiques dans la gestion de parc nationaux.

### Conservation International

Mexico

TECHNICAL ASSISTANT

2014–2015

- Participatory community diagnostics in three pilot sites around the Water Forest Strategy

## Research experience

### Rutgers University

New Jersey, USA

RESEARCH ASSISTANT

2021 – 2023

- Project: “Developing Indices of Vulnerability to Climate Change for Ground Fishing Communities in the Northeast”
- Principal Investigator: Kevin St. Martin, Associate Professor, Rutgers University
- Funding: New Jersey Sea Grant (NJ Sea Grant) 6189-0000. Also funded by NOAA (National Oceanic and Atmospheric Administration).

- Project: “Socioenvironmental analysis of land use/land cover change in tropical dry forests”, supervised by Prof. Dr. José Paruelo.
- Supervised by José Paruelo
- Funding: National Council for Science and Technology, Research Stay Grant

**National Autonomous University of Mexico**

Mexico City, Mexico

- Project: “Socioenvironmental analysis of conservation and deforestation processes in the tropical dry forest of Mexico”
- Principal Investigators: Fernanda Figueroa, Jorge A Meave & Consuelo Bonfil, UNAM
- Funding: PAPIIT-DGAPA [UNAM], grant no. IA205216

## Professional Training and Academic Workshops

- |      |  |
|------|--|
| 2021 | <b>Openscapes: Better Science for Future Us:</b> National Center for Ecological Analysis and Synthesis, UC Santa Barbara (Online)  |
| 2021 | <b>Using Google Earth Engine for Land Monitoring Applications:</b> National Aeronautics and Space Administration (NASA) (Online)   |
| 2017 | <b>Place-based transdisciplinary research for Global Sustainability:</b> Programme on Ecosystem Change and Society (Oaxaca, Mexico)  |
| 2016 | <b>Forest Monitoring with CLASlite:</b> Carnegie Institution for Science (Washington D.C., USA)  |
| 2014 | <b>Methodological approaches to the study of compensation mechanisms focused on conservation:</b> Institute of Geography, National Autonomous University of Mexico (Mexico City, Mexico) |
| 2014 | <b>Management of socio-ecological systems to support decision-making:</b> Faculty of Sciences, National Autonomous University of Mexico (Mexico City, Mexico)                            |

## Publications

### Research papers

1. Figueroa, F., Calzada, L., & Meave, J. A. (2020). Integrating pattern-based modelling and political ecology in land-use change research: The case of mexican dry tropics. *J. Land Use Sci.*
2. Wegier, A., Alavez, V., Pérez-López, J., Calzada, L., et al. (2018). Beef or grasshopper hamburgers: The ecological implications of choosing one over the other. *Basic and Applied Ecology.*
3. Calzada, L., Meave, J. A., Bonfil, C., & Figueroa, F. (2018). Lands at risk: Land use/land cover change in two contrasting tropical dry regions of mexico. *Appl. Geogr.*
4. Ortega Uribe, T., Mastrangelo, M. E., Villarroel Torrez, D., et al. (2014). *Estudios transdisciplinarios en socio-ecosistemas: Reflexiones teóricas y su aplicación en contextos latinoamericanos.*

### Book chapters

1. Figueroa, F., & Calzada, L. (2019). Gobernanza del manejo de los recursos forestales en México. In V. S. Ávila Foucat & M. Perevotchikova (Eds.), *Sistemas socio-ecológicos: Marcos analíticos y estudios de caso en Oaxaca, México* (pp. 205–226). Institute of Economic Research, National Autonomous University of Mexico.
2. Puente Uribe, B., Calzada, L., Bonfil, C., & Figueroa, F. (2017). Prácticas agrícolas y conservación de la agrobiodiversidad en Amatlán de Quetzalcóatl. In Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO) & Gobierno del Estado de Morelos (Eds.), *La biodiversidad en Morelos: Estudio de estado 2: Vol. III* (pp. 428–433). Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO).

### Cartographic design in publications

1. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad, & [SEMA] Secretaría de Medio Ambiente del Estado de Coahuila de Zaragoza. (2017). *La biodiversidad en Coahuila: Estudio de estado: Vols. I - II*. CONABIO; SEMA; Quintanilla Ediciones.
2. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad, & [SEDEMA] Secretaría del Medio Ambiente del Distrito Federal. (2016). *La biodiversidad en la ciudad de México: Vols. I - III*. CONABIO; SEDEMA.
3. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad. (2016). *Estrategia nacional sobre la biodiversidad de México (ENBioMex) y plan de acción 2016-2030*. CONABIO.

## Technical reports

1. Almeida Leñero, L., Jujnovsky Orlandini, J., Ramos, A., Cetina Arenas, L., Guadarrama Almeida, K., Rivero Aranda, S. L., Calzada, L., & Correa Ayram, C. (2016). *Evaluación estera del programa de fondos de apoyo para la conservación y restauración de los ecosistemas a través de la participación social*. Secretaría del Medio Ambiente de la Ciudad de México, UNAM.
2. Almeida Leñero, L., Jujnovsky Orlandini, J., Ramos, A., Cetina Arenas, L., Rivero Aranda, S. L., Guadarrama Almeida, K., Hudler Schimpf, C., Correa Ayram, C., & Calzada, L. (2015). *Evaluación externa del programa de redistribución por la conservación de servicios ambientales (PRCSA)*. Secretaría del Medio Ambiente de la Ciudad de México, UNAM.
3. Almeida Leñero, L., Figueroa, F., Ramos, A., Calzada, L., & Galván Benítez, L. E. (2014). *Estrategia para la conservación del bosque de agua diagnóstico participativo de la comunidad de coajomulco, mpio. De huitzilac, morelos*. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.
4. Almeida Leñero, L., Figueroa, F., Ramos, A., Calzada, L., & Galván Benítez, L. E. (2014). *Estrategia para la conservación del bosque de agua: Diagnóstico participativo de la comunidad de san miguel topilejo, distrito federal*. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.
5. Almeida Leñero, L., Figueroa, F., Ramos, A., Calzada, L., & Galván Benítez, L. E. (2014). *Estrategia para la conservación del bosque de agua informe final: Reporte general regional*. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.

## Science communication

1. Figueroa, F., Meave, J. A., Pérez-García, E., Calzada, L., & Rangel, V., García-Sevilla, C. (2018). *Nizanda. Transformación ambiental y social en el istmo oaxaqueño* (F. Figueroa & L. Calzada, Eds.). Ediciones Quinto Sol, UNAM.
2. Figueroa, F., Bonfil, C., Barrales, B., Calzada, L., Puente-Urbe, B., Romero, M., & García-Sevilla, C. (2018). *Amatlán. Transformación ambiental y social en el norte de morelos* (F. Figueroa & L. Calzada, Eds.). Ediciones Quinto Sol, UNAM.
3. González-Jiménez, D., Franquesa, M., Bueno, I., Lazos, E., Noellemeyer, E., Mwampamba, T., Maass, M., & Balvanera, P. (Eds.). (2014). *Guía para el diseño y ejecución de cursos interdisciplinarios. Aprendizajes derivados del curso de sistemas socio-ecológicos para la toma de decisiones*. CIEco e IIS – UNAM, IAI, UNLPam.

## Selected Presentations

---

1. Calzada, L. (2023). *Patrones de degradación forestal y sembrando vida en el corredor biológico Calakmul-Sian ka'an, méxico*. II Congreso Estatal de Ciencia, Tecnología Agropecuaria y del Mar.
2. St. Martin, K., Calzada, L., Nogue, B., Selden, B., Kitchel, Z., & Coleman, K. (2023). *Mapping precarious fishing communities as a foundation for environmental justice*. 83rd Annual Meeting of the Society for Applied Anthropology.
3. St. Martin, K., Calzada, L., Nogue, B., Selden, R., Kitchel, Z., & Coleman, K. (2023). *Revealing fishing community precarity and the foundations of environmental justice*. Mare Conference People & the Sea XII.
4. Calzada, L., & Schneider, L. (2023). *Forest degradation patterns and sembrando vida in the Calakmul—Sian ka'an biological corridor, mexico*. Annual Meeting of the American Association of Geographers.
5. Rader, A., Schneider, L., & Calzada, L. (2022). *Successional clustering: Structural and compositional recovery in a seasonally dry tropical forest after hurricane disturbance in the mexican mesoamerican biological corridor*. Annual Meeting of the American Association of Geographers.
6. Calzada, L., Rader, A., & Schneider, L. (2022). *A matter of time - detecting vegetation change and biomass temporal response to disturbances in the maya forest, mexico*. Annual Meeting of the American Association of Geographers.
7. Calzada, L., & Figueroa, F. (2022). *La transformation del istmo oaxaqueño ' intervenciones de desarrollo y su impacto en la dinámica agropecuaria y de urbanización*. VII Congreso Mexicano de Ecología.
8. Kitchel, Z., Coleman, K., Selden, R., Calzada, L., Nogué Alguero, B., & St. Martin, K. (2022). *Distinct patterns in historical mobility and catch flexibility underscore intra-port variation in potential adaptive capacity to climate change*. Mid-Atlantic Chapter - America Fisheries Society Annual Conference.
9. Calzada, L., Selden, R., Coleman, K., Young, T., & St. Martin, K. (2021). *What is a port without its vessels? – decline and consolidation in the fishing ports of the northeast*. AAGMSM Annual Conference.
10. Sosa, C., Figueroa, F., & Calzada, L. (2019). *Trends of conservation and development in mexican biosphere reserves: Spatial analysis and linear mixed model*. International Conference on Forestry and Rural Development.
11. Puente, M. B., Calzada, L., & Figueroa, F. (2017). *Dynamics of global change in the agriculture and food sector: Factors influencing a case study in central mexico*. II Open Conference of the Programme on Ecosystem Change and Society.

12. Calzada, L., Figueroa, F., Romero, M. E., & Rangel, V. (2017). *Socio-ecological dynamics linked to hydrological ecosystem services provision in seasonal-dry forests in southern Mexico*. II Open Conference of the Programme on Ecosystem Change and Society.
13. Almeida-Leñero, L., Figueroa, F., Ramos, A., Calzada, L., Galván, L., & Hoth, J. (2016). *Participatory community assessment: Community monitoring as a foundation for the conservation of the water forest in central Mexico*. Urban Transitions Global Summit.
14. Figueroa, F., & Calzada, L. (2016). *Gobernanza en el manejo de los recursos forestales*. Seminario Estudios de los sistemas socioambientales en Oaxaca.
15. Calzada, L., Almeida-Leñero, L., Figueroa, F., & Vallejos, M. (2015). *Evaluación multi-escalar del PSAH en dos comunidades de la cuenca de México*. V Congreso Mexicano de Ecología.

## Teaching experience

---

- S1 2023 **Main instructor:** Maps Power and the Digital World (Rutgers University)
- S2 2022 **Teaching assistant:** Remote Sensing (Rutgers University)
- S2 2022 **Teaching assistant:** Earth Systems (Rutgers University)
- S2 2022 **Invited lecturer:** Remote Sensing (National Autonomous University of Mexico)
- S1 2022 **Teaching assistant:** Remote Sensing (Rutgers University)
- S2 2021 **Invited lecturer:** Geographic Information Systems (National Autonomous University of Mexico)
- S1 2021 **Invited lecturer:** Latin America (Environment and Society) (Rutgers University)
- S2 2019 **Teaching assistant:** Biostatistics (National Autonomous University of Mexico)
- S1 2019 **Teaching assistant:** Biostatistics (National Autonomous University of Mexico)

## University and Professional Service

---

- 2021-2022 **President:** The Graduate Geographers Project, Rutgers University (New Jersey, USA)
- 2021-2023 **Trustee fellow:** The Nature Conservancy (New Jersey, USA)
- 2020 **Reviewer:** Journal of Land Use Science (Taylor and Francis press)

## Awards & Achievements

---

### Awards

#### Graduate Teaching Excellence Award

DEPARTMENT OF GEOGRAPHY, RUTGERS UNIVERSITY

2023

#### Best Student Paper Award

BIOGEOGRAPHY SPECIALTY GROUP OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

2023

### Scholarships

#### Fulbright – National Geographic

INSTITUTE OF INTERNATIONAL EDUCATION (IIE) & NATIONAL GEOGRAPHIC SOCIETY

2023-2024

#### Fulbright – Garcia Robles

INSTITUTE OF INTERNATIONAL EDUCATION (IIE) & COMISIÓN MÉXICO ESTADOS UNIDOS PARA EL INTERCAMBIO EDUCATIVO Y CULTURAL

2023-2024

#### MaGrann Field Research Award

DEPARTMENT OF GEOGRAPHY, RUTGERS UNIVERSITY

2023

#### Field Study Award

LATIN AMERICA SPECIALTY GROUP OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

2023

#### Field Study Grant

CONFERENCE OF LATIN AMERICAN GEOGRAPHY

2023

#### Student Small Grant

CENTER FOR LATIN AMERICAN STUDIES, RUTGERS UNIVERSITY

2023

#### Honorable mention

FORD FOUNDATION

2022

<b>Student Small Grant</b> CENTER FOR LATIN AMERICAN STUDIES, RUTGERS UNIVERSITY	2021
<b>Dean’s Fellowship for doctoral study</b> RUTGERS UNIVESITY	2019-2020
<b>Graduate scholarship for master’s degree</b> CONACYT	2016-2018
<b>Reasearch Stay Grant</b> CONACYT	2017
<b>Honors</b>	
<b>Bachelor in Biology: Magna Cum Laude</b> UNAM	2015
<b>Master in Science: Magna Cum Laude</b> UNAM	2019

## Skills

---

- BACK-END:** PHP
- CONTENT MANAGEMENT SYSTEMS:** JOOMLA, OCTOBER
- DEVOPS:** DOCKER, MYSQL
- FRONT-END:** MARKDOWN, HTML5, CSS
- GIS:** ARCGIS DESKTOP, ARCGIS PRO, IDRISI, DINAMICA EGO, TERRSET
- OFFICE SUITE AND DESING:** PHOTOSHOP, INDESING, MICROSOFT OFFICE (MACROS AND VISUAL BASIC)
- PROGRAMMING:** R, PYTHON, JAVASCRIPT, LATEX
- PROJECT MANAGEMENT:** TRELLO, SLACK
- REMOTE SENSING:** ENVI, PCI GEOMATICA, ERDAS, CLASLITE, GOOGLE EARTH ENGINE (JAVASCRIPT)
- SOCIAL DATA ANALYSIS:** UCINET, SUPER DECISIONS, ATLAS.TI
- VERSION CONTROL SYSTEMS:** GIT, GITHUB