

Carlos Eduardo Quezada Lambertin

Researcher, Instituto de Investigaciones Socio-Económicas (IISEC), Universidad Católica Boliviana
Doctoral student, Department of Agricultural Economics, Faculty of Bioscience Engineering, Ghent University

Email: cquezada@ucb.edu.bo - carlos.quezadalambertin@ugent.be

La Paz, Bolivia

My doctoral research explores high-altitude wetland ecosystems (bofedales) in glacial catchments of the Andean Region, focusing on the sustainable management of natural resources and resilience to climate change through a socio-ecological systems lens. I integrate agricultural, environmental, and economic modeling with remote sensing and geospatial analysis to tackle the challenges posed by climate change. By combining local knowledge with scientific data, I aim to strengthen adaptation strategies and advance sustainability in these fragile ecosystems.

- **Hydrological & Ecosystem Modeling:** SWAT, APEX
- **Geospatial Analysis:** Google Earth Engine, Python, QGIS, ArcGIS, Land cover change analysis, vegetation biomass estimation
- **Data Analysis:** Python
- **Drone Operations:** Piloting for environmental data collection and mapping

EDUCATION

2023 – present – Doctoral student in Bioscience Engineering, Ghent University, Belgium.
2021 - Postgraduate Training in Food Security And Food Systems, Universidad Católica Boliviana
2020 – Bachelor In Environmental Engineering, Universidad Católica Boliviana

PUBLICATIONS

Quezada Lambertin, C., Villafuerte, L., Irahola, F., Trigoso, N., Paz, L., Didriksson, C., Salazar, C., & Benavides, J. P. (in review). From water security to food security: Socio-environmental challenges of construction aggregate mining in Bolivian Altiplano communities. *Revista Chilena de Nutrición*.

Slosse, W., Benavides, J. P., Branisa, B., Buysse, J., D'Haese, M., **Quezada Lambertin, C. E.**, & Schoors, K. (2025). Ripples of reciprocity: Navigating trust and collective governance in hydrosocial territories. *World Development*, 188, 106900. <https://doi.org/10.1016/j.worlddev.2024.106900>

Vigabriel Navarro, L. M., Osorio Leyton, J. M., **Quezada Lambertin C.**, Benavides J. P. (2024) Estimación de la biomasa del cultivo de cebada (*Hordeum vulgare* L.) mediante teledetección de imágenes multiespectrales. *Revista de Investigación e Innovación Agropecuaria y de Recursos Naturales*. Vol 11 (2).19-29. DOI: 10.53287/iguo9951ru99j

Quezada Lambertin, C., Nina Vargas, M., Vigabriel Navarro, L. (2023). *Estimación del indicador 15.3.1: Proporción de tierras degradadas en comparación con la superficie total de los Municipios y Territorios Indígenas de Bolivia* (IISEC-UCB Documento de Trabajo 202303). La Paz, Bolivia: Instituto de Investigaciones Socio-Económicas. Disponible en: <https://iisec.ucb.edu.bo/publicaciones-documentos-de-trabajo-iisec-bolivia>

Nina Vargas, M., Flores Quisbert, R., **Quezada Lambertin, C.** (2023). *Estimación del indicador 6.6.1: Proporción de cuencas hidrográficas de municipios y territorios indígenas de Bolivia que experimentan grandes cambios en la extensión de sus aguas superficiales* (IISEC-UCB Documento de Trabajo 202302). La Paz, Bolivia: Instituto de Investigaciones Socio-Económicas. Disponible en: <https://iisec.ucb.edu.bo/publicaciones-documentos-de-trabajo-iisec-bolivia>

Sayol, J.M., Azeñas, V., **Quezada, C.E.**, Benavides, J.P. (2022) *Is greenhouse rainwater collection enough to satisfy the water demand of own crops? The Bolivian Altiplano case*. *Hydrology*. 9, 107. <https://doi.org/10.3390/hydrology9060107>

Quezada Lambertin, C.E. (2021). Adaptation to the impacts of climate change in potato-based agricultural systems in the Bolivian Altiplano (IISEC-UCB Working Paper No. 6). Available at: <http://www.iisec.ucb.edu.bo/assets/iisec/publicacion/202106.pdf>

Quezada Lambertin, C.E., Osorio Leyton, J.M., Benavides López, J.P. (2021). Calibration and validation of the APEX model for three potato cultivars produced in the Andean region of Bolivia. *Latin American Journal of Economic Development*, Special Issue.

Quezada Lambertin, C.E. (2020). Forest governance in Bolivia: Are indigenous territories effective for forest conservation? In *Entre el desarrollo y los extractivismos: El dilema de la producción en Bolivia*, Zelaya, M. (Ed.); Foro Andino Amazónico de Desarrollo Rural: La Paz; pp. 85–144, ISBN 2013206534.

Quezada Lambertin, C.E., & Garvizu Auza, V.C. (2019). Evaluation of a point-of-use treatment for the removal of microbiological contamination in drinking water for the community of Tarvita – Chuquisaca (IISEC-UCB Working Paper No. 9). Available at: http://www.iisec.ucb.edu.bo/assets/iisec/publicacion/DT_09_IISEC_Quzada.pdf

WORK EXPERIENCE

Instituto de Investigaciones Socio-Económicas (IISEC) - Universidad Católica Boliviana

Full time Researcher

May/2022 – Present

Junior Researcher

Jan/2020 – Apr/2022

Research assistant

Feb/2019 – Dec/2019

Centro de Estudios de la Realidad Económica y Social (CERES)

Junior Researcher

Research grant

Sep/2020 – Feb/2021

Swiss Red Cross –Bolivia program

Internship disaster risk management

Sep/2018 -Feb/2019

CONSULTING PROJECTS

Project: “Generation of a Digital Elevation Model for Three Intervention Zones prioritized by the Bolivia Resilient Program against Climate Risks, Potosí and Tarija.”

Consulting firm: Beamster Cons.

07/Feb/2020 - 10/Apr/2020

Project: “Generation of a Digital Elevation Model in tributaries of the Rocha River for the municipalities of Vinto, Quillacollo, Colcapirhua and Cercado, Cochabamba”.

Consulting firm: Beamster Cons.

01/Jan/2020 - 28/Feb/2020

Project: "Risk Analysis in the communities of 3 Arroyos, Baron Pampa, Candelaria, and Guanay"

Consulting firm: Beamster Cons.

01/Jul/2019 - 27/Dec/2019

Project: "Loss Replacement Program for the Hydraulic Conditioning of the Rocha and Titiri Rivers"

Consulting firm: Beamster Cons.

04/Feb/2019 - 28/Jun/2019

SCHOLARSHIPS AND RESEARCH AWARDS

Doctoral scholarship, VLIR UOS IUC

Doctoral programe in Bioscience Engineering, Ghent University, Belgium

Sep/2023 – Present

Research Funds “Pequeños proyectos de Investigación”, 5th versión.

Universidad Católica Boliviana

Research Project: “ *¿Are greenhouses socioeconomically and environmentally sustainable?* ”

Feb/2021- Feb/2022

Postgraduate training Scholarship

Postgraduate Training in Food Security and Food Systems– Universidad Católica Boliviana

Nov/2020

Funds for Young Researchers

Foro Andino Amazónico de Desarrollo Rural – Centro de Investigación y Promoción del Campesinado

Research project: “*Forest governance in Bolivia: ¿Are indigenous territories effective for forest conservation?*”

Oct/2020

Research Training Grant

Centro de Estudios de la Realidad Económica y Social (CERES)

Sept/2020

Research Assistant Grant

Hanns Seidel Stiftung – Instituto de Investigaciones Socio Económicas – UCB

Feb/2019

**PRESENTATIONS
AT
CONFERENCES**

Conference: *15th Bolivian Conference on Development Economics*
Presentation: Bottom-up Conservation: Sub-national Protected Areas and Local Governance in Bolivia
Organizer: Society of Economists of Bolivia
Nov/2024

Conference: *International Congress "Resilience to the Climate Crisis"*
Presentation: "Modeling Irrigation Management to Improve Sustainability and Resilience to Drought in Potato Production in the Bolivian Altiplano"
Organizer: Universidad Católica Boliviana
Jul/2024

Conference: 1st Virtual Latin American Congress of the International Association For The Study Of The Common Goods: The Future Of The Common Goods In Latin America
Presentation: ¿Can Municipal Protected Areas help reduce deforestation rates in the lowlands of Bolivia?
Organizer: IASC, Universidad Nacional Autónoma de México, CGIAR
Jun/2021.

Conference: *2nd VIRTUAL CONFERENCE ON SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL CHALLENGES: "Environmental solutions in a context of climate emergency"*.
Presentation: Calibración del modelo de simulación de cultivos APEX (Agricultural Policy Environmental eXtender) para 3 variedades de papa producidas en la región andina boliviana
Organizer: CEBEM, REDESMA, Universidad de Loyola, RIPPET, Red Abierta de Prospectiva para e Innovación para América Latina y El Caribe, Universidad Nacional de Cuyo, Universidad Federal de Bahía y PUEBLOS EN RED.
Sep/2020.

LANGUAGES

English – C1
Spanish – Native

REFERENCES

Fernanda Wanderley, Ph.D.
Instituto de Investigaciones Socio Económicas – Universidad Católica Boliviana
Directora
fwanderley@ucb.edu.bo
+(591 -2)278 2222 – Int. 2740

Jean Paul Benavides, Ph.D.
Instituto de Investigaciones Socio Económicas – Universidad Católica Boliviana
Docente Investigador Senior
Centro de Estudios de la Realidad Económica y Social (CERES)
Asociado
jeanpaul.benavides@gmail.com - jbenavides@ucb.edu.bo

Stijn Speelman, Ph.D.
Department of Agricultural Economics – Ghent University
stijn.speelman@ugent.be