Proposals TFM SAES 2024/2025

Specialisation in the Science and management of Global Change

Thesis Title: Adoption and Impact of Green Public Procurement in European countries

Supervisor(s): Jordi Rosell jordi.rosell@udg.edu

Specialization:

Description: This thesis aims to explore the adoption and effectiveness of Green Public Procurement (GPP) across different governance levels in Europe. By focusing on both macro and meso determinants, this study will analyze the factors influencing GPP uptake within European institutions and across regional and local administration. The student has its own independence to choose the specific research question and geogrpahical area.

1. **Objectives**:
   The primary objective is to assess the extent to which GPP is adopted as a tool for sustainability in public procurement across various levels of governance. In particular, it will:
   - Compare GPP adoption rates between European institutions and Spanish regional and local governments.
   - Identify key macro determinants (such as legislation and economic development) and meso factors (like governance structures and contract size) driving GPP adoption.
   - Any country from the EU is welcome, or all of them (NO, CH, and UK are also possible).
2. **Methodology**:
   This study will use a combination of quantitative methods, mainly econometrics. The main data sources will be the Tenders Electronic Daily (TED) database. A keyword search will be used to identify GPP contracts based on environmental criteria. Statistical analysis will be applied to test the influence of legislative changes, economic development, and governance levels on GPP adoption rates, among others.
3. **Expected Results**:
   The research is expected to highlight differences in GPP adoption between various levels of government, sectors, countries… . The study will also provide insights into the barriers to GPP, such as lack of training for public procurement officers and administrative complexities, which are expected to hinder broader adoption.

This thesis will contribute to the ongoing discussion on the role of public procurement in promoting sustainability and will provide policy recommendations for increasing GPP adoption.

Previous references:

Rosell, J. (2024). Environmental resilience of the largest European public transport providers during the COVID-19 pandemic. Environmental Sciences Europe, 36(1), 173.

Rosell, J., Plaček, M., Ochrana, F., & Šumpíková, M. (2024). Hiding when you're not green: An empirical analysis on green public procurement. Public Money & Management, 1-10.

Plaček, M., Rosell, J., Valentinov, V., & Křápek, M. (2024). Green public procurement in the most visited European museums: A comparison and a mapping. Humanities and Social Sciences Communications, 11(1), 1-10.

Rosell, J. (2023). Did governments neglect the environment during the COVID-19 pandemic? An empirical analysis of green public procurement. Economic Analysis and Policy, 80, 835-849.

Rosell, J. (2023). Green Public Procurement in Spain. Review of Public Economics / Hacienda Pública Española.

Badell, D., & Rosell, J. (2021). Are EU institutions still green actors? An empirical study of green public procurement. JCMS: Journal of Common Market Studies, 59(6), 1555-1572.

Rosell, J. (2021). Getting the green light on green public procurement: Macro and meso determinants. Journal of Cleaner Production, 279, 123710.

Project title: Mountain wine: threat or opportunity for mountainous rural areas?

Project supervisors: Lucía Argüelles (IN3-UOC), Esteve Corbera (ICTA-UAB, Dept of Geography)

Desirable specialization of the student: Ecological Economics, Global change (with GIS as required key skill)

Project description:

Changes in rainfall and temperature patterns driven by climate change are affecting agricultural production in many regions of the world. In Catalonia, such processes are inducing farmers and agribusinesses to try out new crop varieties, management practices, and in some contexts and for some crops it may also imply to look for new growing areas.

This research project aims to analyze if, how and why spatial shifts are occurring in the viticulture sector, as vine growing is expected to move towards higher altitudes and latitudes. Vine growing and wine production have a greater profitability than other crops, and the actors and dynamics than govern the sector differ from vegetable, cereal, or fruit trees, for example. Hence, the sector's northward shift might bring new agrarian dynamics while displacing other crops or land uses, and change rural economies and cultures. In turn, the new geographies might also bring changes to wine production and the wine sector.

The study would ideally combine geographic spatial analysis and interviews with farmers, agribusinesses and policymakers from the viticulture sector to better understand the current trends, prospects and limitations of vineyards' spatial shifts, and in so doing the project will also imagine the landscapes of the new rural regions that this crop may colonize in the future. The latter will be explored in one or two mountainous valleys of the Catalan Pyrenees where vineyards are experimentally grown.

We are looking for an MSc student with an undergraduate in environmental science, biology/ecology, geography, sociology, or political science willing to undertake qualitative research in Catalonia. Familiarity with interviewing and/or GIS mapping techniques are desirable. Catalan or Spanish speaking is a must.

The student will be supervised by Prof. Esteve Corbera (ICTA-UAB) and Dr. Lucía Argüelles (IN3-UOC) and be involved in the meetings and activities of ICTA-UAB's Laseg research lab (www.laseg.cat), and the Conservation reading group.

Contact: Esteve Corbera (Esteve.Corbera@uab.cat)

Title: Protected areas and racialized minorities in Catalonia

Supervisors: Isabelle Anguelovski, Esteve Corbera

Specialization: Ecological Economics, Global change

Description:

Research on climate and health has identified extreme temperature (heat, cold), intense precipitation and flooding as well as droughts, as areas of great concern globally and specifically for Southern Europe. In this context, efforts have been focused on enhancing the adaptive capacities of vulnerable groups (e.g. elderly, low-income people) and vulnerable areas, but little attention has been given specifically to global south (GS) migrant and racialized minorities, and their intersectional vulnerabilities.

Among others, research shows that those groups are enduring the environmental, social and health impacts of environmental pollution and burdens while having the least access to green space and climate-protective infrastructure. Yet, rural protected areas, located in peri-urban or remote regions, are not only reservoirs of biodiversity but also climate and social refuges that can also enhance people's wellbeing.
Yet, as recent scholarship on green space and exclusion has shown, GS migrant and racialized residents, visitors and/or workers might find themselves unattracted by and excluded in those spaces or might find their needs unmet by greenspace plan(ner)s and managers. On the other hand, they might also have valuable knowledge for supporting the climate and other benefits that can be harnessed from those spaces.

This research aims to understand how and why GS migrants and racialized minorities in Catalonia access and benefit from protected areas. Specifically, the research will examine the use made of those spaces by families, the socio-natural relationships and individual and collective identity built with protected areas, as well as the constraints people face in their access to the area and its benefits. The research will be grounded on one or two protected areas from inland Catalonia, to be selected after a set of preliminary interviews with decision-makers. The research will contribute original knowledge at the intersection of protected area management, conservation and climate justice, and processes of migration and racialization.

We are looking for an MSc student with an undergraduate in environmental or conservation science, biology/ecology, geography, sociology, or political science willing to undertake qualitative research in Catalonia. Familiarity with interview and participatory techniques is desirable. Catalan or Spanish speaking is a must.
The student will be supervised by Profs. Esteve Corbera and Isabelle Anguelovski, and be involved in the meetings and activities of ICTA-UAB's Laseg research lab (www.laseg.cat), Bcnuej lab (www.bcnuej.org) and the Conservation reading group.

Contact: Esteve Corbera (Esteve.Corbera@uab.cat) and Isabelle Anguelovski (Isabelle.Anguelovski@uab.cat)

Project title: The effectiveness of payment-based forest conservation: a systematic review

Project supervisor: Esteve Corbera (ICTA-UAB, Dept of Geography)

Desirable specialization of the student: Ecological Economics, Global change

Project description:

Over the past twenty years, payment- and market-based projects and programs which reward farmers and communities in tropical and sub-tropical countries for the conservation of forests have proliferated. These include carbon offsetting forest projects, as well as projects and programs aimed at Reducing Emissions from Deforestation and forest Degradation (REDD+) and Paying for the provision or enhancement of Ecosystem Services (PES). As these initiatives have matured, researchers have begun to analyze their effectiveness in avoiding deforestation and the number of studies has been mounting, particularly since the mid 2000s. It is now critical to know the overall contribution of these initiatives to the conservation of forests, and to investigate whether they have been able to modify land-use change trends in their implementation sites.

This project is aimed at providing a state-of-the-art review of all peer-reviewed scientific literature which has employed spatial and matching methods to investigate how much deforestation has been avoided through PES, REDD+ and carbon offset projects. The review will also provide a map of the case study locations, and the methodological approaches used, including their strengths and weaknesses. It will also discuss how much these projects have contributed to modify local and regional land-use trends, identify research gaps and propose how to advance the frontier on the impact assessment of forest conservation.

I am looking for an MSc student with an undergraduate in environmental science, biology/ecology, geography, sociology, or political science willing to undertake rigorous desk-based research and willing to learn the art of review and document content analysis. Familiarity with statistical analysis is desirable. Catalan or Spanish speaking is a must.

The student will be involved in the meetings and activities of ICTA-UAB's Laseg research lab (www.laseg.cat), and the Conservation reading group.

Contact: Esteve Corbera (Esteve.Corbera@uab.cat)

Project title: The politics of ecological restoration in Catalonia

Project supervisors: Forrest Fleischmann (Dept of Geography, University of Minnesota), Esteve Corbera (ICTA-UAB, Dept of Geography)

Desirable specialization of the student: Ecological Economics, Global change

Project description:

We live in the UN decade of ecological restoration. Countries worldwide are mobilizing public resources to redress environmental degradation through ecological restoration programs and projects. However, we know little about who is behind the restoration agenda, how restoration sites are identified, restoration activities funded, and how such activities are designed and perform. Grounded on scholarship about recognition in conservation, the politics of/in ecological restoration, and the politics of scientific knowledge production, this MSc project is aimed at shedding light onto the omissions and pitfalls of ecological restoration, as well as the prospects for success, in Catalonia, Spain.

The MSc student will work with previously collected qualitative data about river custody/restoration projects in Catalonia, funded by the Catalan Water Agency and implemented on the ground by local councils and NGOs. These data consist of information on the projects' goals and achievements to date. The student will be expected to expand such data with additional data collection, and to conduct interviews and site visits to dig deeper in the nature and meaning of such data.

We are looking for an MSc student with an undergraduate in environmental science, biology/ecology, geography, sociology, or political science willing to undertake qualitative research in Catalonia. Familiarity with interviewing and statistical analysis are desirable. Catalan or Spanish speaking is a must.

The student will be supervised by Prof. Esteve Corbera, Prof. Forrest Fleischman (University of Minnesota, former Visiting Prof. at ICTA-UAB), and be involved in the meetings and activities of ICTA-UAB's Laseg research lab (www.laseg.cat), and the Conservation reading group. The project counts with the support of the Catalan Water Agency, which has provided most of the contacts and the information collected to date.

Contact: Esteve Corbera (Esteve.Corbera@uab.cat)

Màster Universitari en Estudis Interdisciplinaris en Sostenibilitat Ambiental, Econòmica i Social

Especialitat Ciència i Gestió del Canvi Global

Proposta de treball pel curs 2024-2025

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1. Susana Bernal (CEAB-CSIC), **Estela Romero (CREAF, Unitat d'Ecologia Global)**

Contacte: sbernal@ceab.csic.es, estela.romero@creaf.uab.cat

ENG

Characterization of N and P inputs and their biogeochemical processing along a Mediterranean river basin with contrasting land uses

Human activities have drastically altered the biogeochemical cycles of many elements, particularly nitrogen (N) and phosphorus (P). The enormous amounts of N and P currently applied to terrestrial systems constitute one of the most overshot planetary limits and are relevant to many environmental issues, such as the health of rivers and aquifers.
We know that land uses greatly determine the amount and fate of nitrogen (N) and phosphorus (P) flowing from terrestrial to freshwater ecosystems. Rather than being conservatively transported, N and P inputs can undergo strong biogeochemical processing as they travel downstream, ultimately leading to improvements in stream water quality. However, the potential for biogeochemical processing can vary substantially as a function of water residence time within the river network and channel bioreactivity, both characteristics that change with time and space in response to external and internal drivers.

Here we propose to combine different empirical approaches to study the N and P processing potential in La Tordera, a typical intermittent Mediterranean watershed with a mosaic of forested, agricultural and urban areas. We will focus on the most representative sub-basins, and the results obtained will be combined with historical hydrological datasets to infer to what extent in-stream biogeochemical processing can contribute to modifying N and P fluxes along the main channel and at the mouth of the river basin.
The work will combine field sampling and laboratory incubations with the compilation and analysis of historical data sets. Basic R programming and some GIS analysis skills are recommended but not mandatory. The student will learn how to design and run experimental studies, and the results obtained will contribute to a better understanding of how in-stream biogeochemical processes can help improve water quality in the river basin.

ESP

Caracterización de los aportes de N y P y su procesamiento biogeoquímico a lo largo de una cuenca fluvial mediterránea

Las actividades humanas han alterado drásticamente los ciclos biogeoquímicos de muchos elementos, en particular el nitrógeno (N) y el fósforo (P). Las enormes cantidades de N y P aplicadas

actualmente a los sistemas terrestres constituyen uno de los límites planetarios más rebasados y son relevantes para muchas cuestiones medioambientales, como la salud de ríos y acuíferos.
Sabemos que los usos del suelo influyen enormemente en la cantidad de nitrógeno (N) y fósforo (P) que pasa de los ecosistemas terrestres a los de agua dulce. En lugar de ser transportados de forma conservativa, sin cambios, los aportes de N y P pueden ser procesados mientras viajan río abajo, lo que a la larga puede conducir a mejoras en la calidad del agua de los arroyos. Sin embargo, el potencial de procesamiento biogeoquímico varía sustancialmente en función del tiempo de residencia del agua dentro de la red fluvial y de la bioreactividad del cauce, características ambas que cambian en el tiempo y el espacio.
Aquí proponemos combinar distintos enfoques para estudiar el potencial de procesamiento de N y P en La Tordera, una típica cuenca mediterránea intermitente con un mosaico de zonas boscosas, agrícolas y urbanas. Nos centraremos en las subcuencas más representativas, y los resultados obtenidos se combinarán con conjuntos de datos hidrológicos históricos para inferir hasta qué punto el procesamiento biogeoquímico en la cuenca puede contribuir a modificar los flujos de N y P a lo largo del cauce principal y en la desembocadura.
El trabajo combinará el muestreo de campo y las incubaciones de laboratorio con la recopilación y el análisis de datos históricos. Se recomiendan conocimientos básicos de programación en R y algunos conocimientos de análisis SIG, pero no son obligatorios. El estudiante aprenderá a diseñar y llevar a cabo estudios experimentales, y los resultados obtenidos contribuirán a una mejor comprensión de cómo los procesos biogeoquímicos en el cauce de los ríos modifican las concentraciones de N y P en la cuenca, y cómo pueden ayudar, por tanto, a mejorar la calidad del agua.

CAT

Caracterització de les entrades de N i P i el seu processament biogeoquímic al llarg d'una conca fluvial mediterrània

Les activitats humanes han alterat dràsticament els cicles biogeoquímics de molts elements, en particular el nitrogen (N) i el fòsfor (P). Les enormes quantitats de N i P aplicades actualment als sistemes terrestres constitueixen un dels límits planetaris més depassats, i són rellevants per a moltes qüestions mediambientals, com la salut de rius i aqüífers.
Els usos del sòl influeixen enormement en la quantitat de nitrogen (N) i fòsfor (P) que passa dels ecosistemes terrestres als d'aigua dolça. En lloc de ser transportats de forma conservativa, sense canvis, els aports de N i P poden ser processats mentre viatgen riu avall, cosa que pot conduir a millores en la qualitat de l'aigua dels rius. No obstant això, el potencial de processament biogeoquímic varia substancialment en funció del temps de residència de l'aigua dins de la xarxa fluvial, i de la bioreactivitat de la llera, ambdues característiques que canvien en el temps i l'espai.
Aquí proposem combinar diferents aproximacions per estudiar el potencial de processament de N i P a La Tordera, una típica conca mediterrània intermitent amb un mosaic de zones forestals, agrícoles i urbanes. Ens centrarem en les subconques més representatives, i els resultats obtinguts es combinaran amb conjunts de dades històriques per inferir fins a quin punt el processament biogeoquímic a la conca ha canviat i com pot contribuir a modificar els fluxos de N i P al llarg de l'eix principal del riu, i fins a la desembocadura.

El treball combinarà el mostreig de camp i les incubacions de laboratori amb la recopilació i l'anàlisi de dades històriques. Es recomanen coneixements bàsics de programació en R i alguns coneixements d'anàlisi SIG, però no són obligatoris. L'estudiant aprendrà a dissenyar i dur a terme estudis experimentals, i els resultats obtinguts contribuiran a una millor comprensió de com els processos biogeoquímics al llarg de la xarxa fluvial modifiquen les concentracions de N i P i com poden ajudar, per tant, a millorar la qualitat de l'aigua.

Analyzing Urban Green Injustices in Barcelona through GIS-Based Analysis of Access to Public Green Space and Green Infrastructure

Supervisors: Amalia Calderón Argelich & Isabelle Anguelovski (ICTA-UAB), Francesc Baró (VUB Brussels). **Specialization**: Ecological Economics or Global Change

Contacts: Amalia.Calderon@uab.cat and Isabelle.Anguelovski@uab.cat

1. Background and Rationale

In recent years, urban planners and policymakers have increasingly focused on the role of green infrastructure in enhancing environmental sustainability and improving public health. Public green spaces, such as parks, gardens, and recreational areas, offer numerous benefits, including mitigating urban heat, reducing air pollution, and promoting physical and mental well-being. However, access to these green spaces is often unevenly distributed, resulting in urban green injustices. Low-income and marginalized communities frequently have limited access to green infrastructure, exacerbating socio-environmental and climate inequalities.

Barcelona, known for its ambitious green infrastructure projects like the “Superblocks” and the “Nature Plan,” offers a valuable context for studying the spatial dimensions of urban green injustice. Despite the city’s progressive urban planning, disparities in access to green spaces may persist, especially in neighborhoods with higher concentrations of vulnerable populations. This research will utilize Geographic Information Systems (GIS) to investigate how access to public green spaces and green infrastructure is distributed across different socio-economic and demographic groups in Barcelona, shedding light on potential inequalities in urban green space availability and examining whether found patterns of injustice in North American and European cities are also present in a more dense and compact city which has a vibrant yet contaminated urban core.

2. Research Objectives

The study aims to:

- Map and quantify the distribution of public green spaces and green infrastructure across different districts of Barcelona, considering also their cooling potential
- Identify socio-economic and demographic characteristics of neighborhoods with limited access to public green spaces.
- Examine the relationship between green space distribution and urban inequality, especially climate inequalities, focusing on vulnerable groups such as low-income residents and racial minorities.

3. Research Questions

- How are public green spaces distributed spatially across the city of Barcelona? And where are those with greatest cooling potential?
- What socio-economic and demographic factors (e.g., income, population density, ethnicity) are associated with neighborhoods that have limited access to green spaces?
- To what extent do residents in disadvantaged neighborhoods experience reduced access to green infrastructure?

4. Methodology: This thesis will use GIS as the primary tool for spatial analysis.

1. **Data Collection**:

Data on public green spaces will be sourced from municipal records, open-source urban maps, and satellite imagery. Socio-economic and demographic data (e.g., population density, income levels, ethnicity, age distribution) will be obtained from census data and Barcelona’s open data portals. Cooling data will be obtained from other climate resources.

2. **Spatial Mapping**:

Using GIS software, the student will create a detailed map of Barcelona’s public green spaces and overlay this with cooling potential, socio-economic and demographic data. This will allow for the visualization of green space distribution in relation to key indicators of social vulnerability.

3. **Proximity and Access Analysis**:

The student will use spatial analysis tools in GIS to calculate proximity to public green spaces from different neighborhoods. This will include measuring the distance to the nearest green space, availability of public transport links to green areas, and the quality (size & amenities) of these spaces.

4. **Socio-Spatial Correlation Analysis**:

Statistical analysis will be conducted to identify correlations between the distribution of green spaces and socio-economic factors such as income, ethnicity, and housing tenure. This will help reveal

whether vulnerable communities are disproportionately affected by reduced access to urban green infrastructure.

Title: Exploring Coastal Management in the Anthropocene

SPECIALIZATION: Global change

Context:
In 2000, Nobel laureate Paul Crutzen introduced the term *Anthropocene* during a colloquium hosted by the International Geosphere-Biosphere Programme, later co-authoring a paper with limnologist Eugene Stoermer. Their idea was that the scale and intensity of human activities had become a planetary force, triggering long-term and potentially irreversible impacts on the Earth, signaling a possible new geological epoch. This concept highlights significant trends in human activity—such as increased urbanization, water use, and international tourism—alongside their environmental consequences, including rising greenhouse gases, ocean acidification, and ecosystem degradation.

Although a subcommittee of the International Geological Society recently voted against formally recognizing the Anthropocene, the debate continues to be highly relevant. It has sparked important conversations about the unprecedented global changes affecting our planet and has expanded beyond Earth sciences into social sciences and the humanities. The Anthropocene provides a new lens for understanding the interconnectedness of socio-environmental systems, with profound implications for territorial management. A central question arises: how do we navigate a world increasingly shaped by human activity?

Why Coastal Zones? Coastal areas are rich in biodiversity, geologically complex, and home to dense populations, making them particularly vulnerable to climate change and human impact. Since the 1970s, coastal management has evolved as a policy tool supported by extensive research to address the challenges of managing these dynamic zones. Its core function is to navigate the complex interplay between human communities, ecosystems, and other species. This makes coastal management a crucial case study for understanding how to adapt to the challenges posed by the Anthropocene.

Research Objectives and Questions: This research aims to apply the PRISMA review method to examine the current debate on coastal management and explore how it intersects with or has been influenced by the Anthropocene framework. Key questions include:

- How has the concept of the Anthropocene reshaped the discourse on coastal management?
- Are current coastal policies adequately aligned with the challenges of the Anthropocene, and how can they be further adapted?

Scope: Given the cutting-edge literature on both the Anthropocene and coastal management from the U.S. and Europe, the study will focus on one of these regions as the primary case study.

Key Tasks:

- Conduct a systematic review of the coastal management literature using PRISMA, with a focus on the accelerated impacts of the Anthropocene.
- Identify areas where coastal management strategies have evolved in response to the Anthropocene and propose further adaptations.

Student Profile: Candidates should have a basic understanding of the Anthropocene literature and a strong interest in the intersection of environmental and social systems.

This is an exciting opportunity to explore how emerging concepts like the Anthropocene can shape practical approaches to managing coastal zones in an era of rapid socioenvironmental change.

If you are interested on this topic, please contact: Eduard Ariza (Eduard.Ariza@uab.cat) or Briana Bombana (bbombana@uoc.edu).

INTERFASE – UAB Research Group on Inclusive Governance and Territorial and Coastal-Marine Sustainability

Urban climate shelters for just adaptation: a systematic review of the literature

Supervisors: Dr. Amalia Calderón Argelich (ICTA-UAB), Dr. Ana Terra Amorim-Maia (BC3), Dr. Francesc Baró (VUB). **Specialization**: Ecological Economics or Global Change

Contacts: Amalia.Calderon@uab.cat ; ana.amorim@bc3research.org; francesc.baro@vub.be

1. Background and Rationale

Climate change is increasingly contributing to the frequency and intensity of extreme weather events, such as heatwaves, cold spells, and severe storms. Urban areas, with their dense populations and infrastructure, are particularly vulnerable to these hazards. Urban climate shelters—designated spaces that provide protection and relief during extreme weather—are emerging as a critical infrastructure of urban resilience and adaptation strategies. Climate shelters can encompass open spaces of heat refuge, such as parks and other urban green and blue spaces, as well as (public) indoor spaces like libraries or civic centers that provide protection from both heat and cold or other extreme weather events. Combined open and indoor spaces such as school facilities with nature-based grounds are also designated as climate shelters in some cities. The academic research on urban climate shelters spans multiple disciplines, including urban planning, architecture, environmental science, public health, and social equity, but it is still in its infancy. This master thesis aims to explore and review the mounting research in this area by addressing one or more of the following research questions:

2. Research Questions

RQ1: How can urban climate shelters be classified in a typology? What are the main social-ecological-technical system components of urban climate shelters? Where (which cities/countries) and how have they mostly been implemented?

RQ2: How have distribution and accessibility concerns been considered in urban climate shelters?

RQ3: To what extent do urban climate shelters address or exacerbate social and spatial inequalities in climate vulnerability/adaptation?

RQ4: What are the main strengths and limitations of urban climate shelters? What improvements can be made to the design and governance of urban climate shelters to better address the needs of socially vulnerable groups?

3. Methodology:

The identify and analyze the scientific literature relevant to our research questions, a **quantitative systematic review** will be carried out, mostly following the widely used protocols of the PRISMA Statement for systematic reviews. Keywords for the search string will include, among others: “climate shelter”, “cooling centers”, “urban refuge”, “clean air centers”, “cool air centers”, etc.The review can also be preceded or substituted by a scoping study on the topic.

4. Relevant references:

- Amorim-Maia, A.T., Anguelovski, I., Connolly, J., Chu, E., 2023. Seeking refuge? The potential of urban climate shelters to address intersecting vulnerabilities. Landscape and Urban Planning 238, 104836. https://doi.org/10.1016/j.landurbplan.2023.104836
- Fraser, A. M., Chester, M. V., Eisenman, D., Hondula, D. M., Pincetl, S. S., English, P., & Bondank, E. (2017). Household accessibility to heat refuges: Residential air conditioning, public cooled space, and walkability. Environment and Planning B: Urban Analytics and City Science, 44(6), 1036–1055. https://doi.org/10.1177/ 0265813516657342
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Medical Research Methodology, 18(1), 1–7. https://doi.org/10.1186/s12874-018-0611-x
- Vasconcelos, L., Langemeyer, J., Cole, H.V.S., Baró, F., 2024. Nature-based climate shelters? Exploring urban green spaces as cooling solutions for older adults in a warming city. Urban Forestry & Urban Greening 98, 128408. https://doi.org/10.1016/j.ufug.2024.128408

Call for an MSc student in Environmental Studies (Specialization Global Change)

Decarbonizing academic research. Insights from a voluntary program

Requisite: Applicants should be enrolled in the Master's in Interdisciplinary Studies in Environmental, Economic, and Social Sustainability (ICTA-UAB), possess fluency in English, and demonstrate strong interpersonal and communication skills. Knowledge in statistics and qualitative data analysis are valued.

Description: Decarbonizing academic research has become a priority, but meaningful emission reductions face structural and cultural challenges within the academic sector. Research often requires extensive travel (e.g., conferences, fieldwork) and relies on energy-intensive facilities, laboratories, and digital infrastructures. Additionally, research institutions and funding bodies often lack specific low-carbon policies, carbon accounting, or tracking systems, resulting in limited incentives for change. This project will investigate a pilot program launched at ICTA-UAB to document and track the carbon impact of its PhD program. By analyzing data from the voluntary program, from PhD students' both expected and actual research activities, as well as collecting primary data through surveying other researchers at ICTA, the MSc thesis will identify key sources of emissions, evaluate justifications for emissions in various research activities, and assess potential mitigation and offset strategies. The project aims to contribute to a nuanced understanding of the pathways and challenges in decarbonizing academic research, developing a data-informed protocol to address structural, institutional and personal drivers to environmentally impacting research approaches.

Objectives and development: The MSc thesis will focus on evaluating and expanding current metrics of research-related carbon emissions. Using data from the ICTA-UAB pilot program, the student will:

- Estimate the expected and actual carbon footprint of the latest cohort PhD program, as well as of other career stages, at ICTA-UAB.
- Analyze factors contributing to these emissions, including the perceived necessity of high-emission activities.
- Assess potential mitigation and compensation strategies, providing recommendations for reducing the Institute's carbon impact.

This analysis will form the core of the MSc thesis, contributing valuable insights into the challenges and opportunities in reducing emissions within academic settings.

Supervision and Support: The thesis will be supervised by LASEG researchers Victoria Reyes-García and Fulvia Calcagni, with potential guidance from other LASEG team members. It is expected that the final MSc thesis will be submitted for publication in a peer-reviewed journal (e.g., *Journal of Cleaner Production*) and presented to the ICTA community.

Opportunities for the Student: The successful candidate will join the interdisciplinary LASEG research group at ICTA-UAB, working with an international team focused on sustainability research. This project offers valuable experience in carbon accounting and sustainability metrics within the academic sector, as well as opportunities to disseminate findings and contribute to the broader conversation on academic decarbonization.

If you are interested on writing your MSc thesis on this topic, please contact

Victoria.reyes@uab.cat or Fulvia.Calcagni@uab.cat

Call for an MSc student in Environmental Studies (Specialization Global Change)

Measuring the impact of sustainability research. The LASEG case study

Requisite: Applicants should be enrolled in the Master's in Interdisciplinary Studies in Environmental, Economic, and Social Sustainability (ICTA-UAB), possess fluency in English, and demonstrate strong interpersonal and communication skills.

Description: Measuring the impact of sustainability research presents distinct challenges due to its interdisciplinary nature, diverse range of stakeholders, and emphasis on real-world, long-term effects. Traditional research impact metrics like citation counts often fail to capture the societal and policy impacts essential to sustainability research, which seeks to inform policy, shape community practices, and raise public awareness. This project addresses the need for expanded metrics that encompass these broader impacts, moving beyond academic citations alone.

Objectives and development: The MSc thesis will focus on developing alternative metrics that provide a more comprehensive view of sustainability research impact. Using the 10-years of work of the Laboratory for the Analysis of Social-Ecological Systems in a Globalized World (LASEG, www.laseg.cat) as a case study, the student will:

- Design and implement holistic, contextualized impact measures (see e.g., https://www.ipbes.net/impact-tracking)
- Collect and analyze data through archival sources, online tools (https://policyprofiles.sagepub.com/) and an online survey of LASEG members and alumni.
- Develop measures aimed at evaluating various dimensions of impact, including:
    - Temporal Impact: Short- and long-term effects.
    - Geographic Scope: Local and global influence.
    - Types of Impact: Theoretical, methodological, societal, and policy-oriented contributions.

The resulting analysis will form the core of the MSc thesis, contributing to a more nuanced understanding of sustainability research impact.

Supervision and Support: The thesis will be supervised by senior LASEG researchers Victoria Reyes-García and Esteve Corbera, with potential guidance from other LASEG team members. It is expected that the final MSc thesis will be submitted for publication in a peer-reviewed journal (e.g., *Journal of Higher Education Policy and Management, Research Evaluation, PlosOne, etc.*) and presented within the LASEG group.

Opportunities for the Student: The successful candidate will become a member of the interdisciplinary LASEG research group at ICTA-UAB, collaborating closely with a team of international researchers. This role offers valuable experience in sustainability metrics and research dissemination.

If you are interested on writing your MSc thesis on this topic, please contact

Victoria.reyes@uab.cat or Esteve.Corbera@uab.cat

Call for an MSc student in Environmental Studies (Specialization Global Change)

Indigenous Peoples' and local communities' understandings of scientific framings of climate change

Requisite: Applicants should be enrolled in the Master's in Interdisciplinary Studies in Environmental, Economic, and Social Sustainability (ICTA-UAB), possess fluency in English, and have skills in quantitative analysis.

Project description: Public discussions on climate change often frame it as a biophysical issue driven by greenhouse-gas emissions from fossil fuels, positioning it within scientific discourses. However, many Indigenous Peoples and local communities interpret climate change through unique cosmological, ontological, and epistemological perspectives. These differing conceptual foundations can lead to tensions and contradictions between scientific and local understandings, sometimes resulting in the dismissal or displacement of alternative ways of knowing, with further implications for climate policy and action. This research project seeks to expand our understanding of how scientific narratives on climate change are received, adapted, or reframed by Indigenous and local communities who may have limited exposure to dominant scientific perspectives.

Objectives and development: The MSc thesis will explore whether and how scientific framings of climate change are recognized and integrated into the perspectives of Indigenous Peoples and local communities, examining who within these communities accesses this information and how it aligns with or diverges from local views of environmental change. Specifically, the student will analyze data collected by the LICCI Consortium (www.licci.eu) on knowledge of scientific climate change framings. Data were gathered through surveys across approximately 20 groups, each with an average of 100 interviews, with a focus on:

1. **Exposure to scientific framing**: Determining whether the scientific concept of climate change has reached these communities.
2. **Knowledge distribution**: Exploring how access to this knowledge varies by gender, age, and education level.
3. **Local framings**: Analysing how scientific notions of climate change integrate with local understandings, resulting in unique community-specific interpretations.

This research will contribute to a nuanced understanding of local interpretations of climate change, supporting more effective and culturally relevant climate communication strategies.

Supervision and Support: The thesis will be supervised by LICCI researcher Victoria Reyes-García, with potential feedback from other LICCI team members. It is expected that the final MSc thesis will be submitted for publication in a peer-reviewed journal (e.g., *Climatic change, PlosOne*, etc.) and presented within the LASEG group.

Opportunities for the Student: This role offers a unique opportunity to work within a network of researchers focused on local knowledge and climate change, fostering interdisciplinary skills and insights into culturally sensitive research methods. The student will benefit from networking with an international research community. For more information about LICCI and this project, visit licci.eu.

If you are interested on writing your MSc thesis on this topic, please contact

Victoria.reyes@uab.cat

Intentional communities and degrowth. The case of ....

Supervisor: Claudio Cattaneo Claudio.Cattaneo@uab.cat

Specialization: Ecological Economics and Global Change

Objective: Exploration of concrete cases within the broad field of intentional communities (it can be eco-communities, rural villages, urban or rural co-housing projects, and other communities where people come and live together). To a certain extent, the definition of community can be extended to examples where participants do not share a roof/housing project, but are related to caring communities (i.e. co-parenting, self-organized kinder-garden/schools, consumers' cooperatives, etc.)

Methodology: Depending on the case(s) chosen, research can be desk-based, or through interviews to a community's participants, or even an ethnographic analysis via participant observation.

The expected results are further insights related to gaps in knowledge related to intentional communities from a degrowth perspective.

University Master's Degree in Interdisciplinary Studies in Environmental, Economic and Social Sustainability, ICTA-UAB (2024-2025)

Local Action for Global Impact: Examining the Potential of Municipalities for a post-growth transition

Supervisors: Claudio Cattaneo & Sarah Bretschko (ICTA-UAB)

Contact: Claudio.Cattaneo@uab.cat

Specialization: Ecological Economics & Global Change

Context

Last April, the Girona City Hall signed a pioneering agreement with postgrowth researchers and sustainable urban development consultants to explore the possibilities and challenges of articulating and applying postgrowth policies and frameworks at a local scale. This agreement offers students the unique possibility to explore the workings of a municipal administration in depth, giving them access to a wealth of data sources and informants. Moreover, it provides an excellent opportunity to combine theoretical discussions on postgrowth with the analysis of the real-world case study of a major Catalan city. More information here in spanish and catalan.

Objectives

- To assess the capacity and role of municipalities, such as Girona, in fostering postgrowth transitions through local policy.
- To identify the main challenges and opportunities municipalities face in implementing postgrowth policies.
- To analyze the ecological, economic, and social outcomes of these policies within a local context.
- To develop recommendations for municipalities seeking to integrate postgrowth principles, drawing insights from Girona's experience for potential replication in other cities.

Methodology

- **Literature Review:** A thorough exploration of current literature on postgrowth theory, ecological economics, and urban sustainability to establish a theoretical foundation.
- **Document Analysis:** Examination of policy documents, municipal reports, and relevant agreements from Girona's City Hall to understand existing strategies.

- **Comparative Case Studies:** Evaluation of postgrowth initiatives implemented in other European cities to draw comparative lessons and identify best practices.
- **Stakeholder Interviews:** Semi-structured interviews with key informants, including policymakers, local NGOs, urban planners, and community members, to capture a range of perspectives and qualitative insights.
- **Field Observations:** On-site visits to observe how postgrowth policies are being enacted and their tangible effects on the community.
- **Data Analysis:** Application of both qualitative and quantitative analysis techniques to assess the impacts and effectiveness of local postgrowth efforts.

Expected results

The thesis aims to produce actionable insights for municipal administrations on effectively transitioning to postgrowth strategies. It will highlight best practices, challenges, and replicable strategies that contribute to ecological resilience, economic sustainability, and social well-being. This research will enrich academic discourse by providing a comprehensive case study of municipal-level postgrowth policy application and offering practical recommendations for policymakers. The insights gained could inspire other mid-sized cities to pursue similar sustainable development paths.

University Master's Degree in Interdisciplinary Studies in Environmental, Economic and Social Sustainability, ICTA-UAB (2024-2025)

Municipal Educational Resources for a Postgrowth Transformation: Redisigning Environmental Education for a Finite Planet

Supervisors: Marula Tsagkari (ICTA-UAB) & Borja Nogué Algueró (University of Gothenburg)

Contact: borja.nogue@mailbox.org

Specialization: Ecological Economics & Global Change

Context

Last April, the Girona City Hall signed a pioneering agreement with postgrowth researchers and sustainable urban development consultants to explore the possibilities and challenges of articulating and applying postgrowth policies and frameworks at a local scale. This agreement offers students the unique possibility to explore the workings of a municipal administration in depth, giving them access to a wealth of data sources and informants. Moreover, it provides an excellent opportunity to combine theoretical discussions on postgrowth with the analysis of the real-world case study of a major Catalan city. More information here in spanish and catalan.

Objectives

- To evaluate the current state of environmental education in Girona and identify gaps in addressing postgrowth principles.
- To analyze the challenges and opportunities municipalities face when redesigning educational programs for sustainability.
- To explore the ecological, economic, and social impacts of postgrowth-oriented education.
- To propose a set of recommendations for integrating postgrowth values into municipal educational frameworks that can be adapted in other cities.

Methodology

- Literature Review: Conduct an extensive review of existing literature on postgrowth theory, pedagogical approaches in environmental education, and best practices for integrating sustainability into curricula.
- Curriculum Analysis: Examine current educational materials and curricula used in Girona's municipal schools to assess how they address or overlook postgrowth concepts.

- Educational Case Studies: Analyze successful educational programs in other municipalities that have incorporated postgrowth and sustainability principles, drawing lessons that could be adapted for Girona.
- Interviews with Educators and Experts: Conduct semi-structured interviews with teachers, curriculum developers, educational policymakers, and experts in environmental education to gather perspectives on integrating postgrowth values.
- Workshops and Focus Groups: Facilitate or observe workshops with educators and community stakeholders to identify practical strategies for redesigning education with postgrowth principles.
- Pedagogical Assessment: Evaluate the effectiveness of current and proposed educational practices in promoting ecological literacy and postgrowth awareness through qualitative feedback and observation.

Expected results

This thesis aims to generate practical insights and recommendations for municipal administrations seeking to reform educational strategies in line with postgrowth principles. It will highlight effective practices, potential challenges, and ways to incorporate ecological sustainability into educational resources with a postgrowth lens. The research is expected to contribute to academic discourse on postgrowth and environmental education while offering actionable frameworks that can inspire cities facing similar challenges.

University Master's Degree in Interdisciplinary Studies in Environmental, Economic and Social Sustainability, ICTA-UAB (2024-2025)

Quantifying Prosperity for Cities: A Postgrowth Approach to Urban Sustainability

Supervisors: Claudio Cattaneo (ICTA-UAB) & Borja Nogué Algueró (Uni Gothenburg)

Contact: Claudio.Cattaneo@uab.cat

Specialization: Ecological Economics, Urban Ecology, Global Change

Context

Last April, the Girona City Hall signed a pioneering agreement with postgrowth researchers and sustainable urban development consultants to explore the possibilities and challenges of articulating and applying postgrowth policies and frameworks at a local scale. This agreement offers students the unique possibility to explore the workings of a municipal administration in depth, giving them access to a wealth of data sources and informants. Moreover, it provides an excellent opportunity to combine theoretical discussions on postgrowth with the analysis of the real-world case study of a major Catalan city. More information here in spanish and catalan.

Objectives

Develop a postgrowth model to assess Girona's environmental and social performance. The model will be based on a series of quantitative social, economic and environmental indicators. It would ideally track the evolution in time of these indicators and study the relationships between the social, environmental and economic dimensions. As well as their performance with respect to targets (be them official set by the municipality, benchmarked against similar cities or based on scientific knowledge and official reports -i.e. Planetary Boundaries per capita allocation, Agenda 2030 SDG, etc.-

Methodology

- A first desk-based analysis of the indicators already available online
- Selection of relevant indicators and potential gaps in knowledge
- Possible interviews with civil servants of the Girona municipality to check for missing data / targets

Expected results

- A graphic model that show performance and relationships between the main domains
- Definition of the potential the municipality has to achieve quality of life and ecological sustainability in a post-growth scenario
- Definition of areas of intervention
- Critical analysis of the resutls, data available

Research topic: *Environmental Justice in Scaling Nature-based Solutions: A Literature Review for Fair and Inclusive Urban Greening*

Research line: Environmental Justice, Nature-based Solutions (NbS), Urban transformation

Research group: Commit2Green/FairNature

CONTACT: Johannes Langemeyer
johannes.langemeyer@uab.cat

Background: urban areas are increasingly adopting nature-based solutions (NbS) to address critical environmental challenges, from climate resilience to biodiversity conservation. However, implementing NbS on a large scale often leads to complex justice issues, as the benefits and burdens of these solutions can be distributed unevenly across social-ecological groups. Environmental justice, encompassing distributive, procedural, and recognition aspects, provides a framework to address these disparities. Yet, as cities scale NbS, knowledge gaps remain on how best to incorporate justice principles into decision-making and governance models. This thesis seeks to bridge this gap by providing a comprehensive literature review on environmental justice in NbS, offering guidance on fair and inclusive approaches to scaling urban greening initiatives. The insights from this review will support the development of principles for equitable and sustainable urban greening strategies, ensuring that NbS contribute to both environmental and social well-being.

Aim: to conduct a comprehensive literature review addressing the principles and practices of environmental justice present when assessing the lifecycle and scaling nature-based solutions in urban NbS.

Main tasks:

- Analyze current literature on distributive, procedural, and recognition justice within NbS frameworks, focusing on urban contexts.
- Identify the primary frameworks and models for applying environmental justice principles within urban NbS.
- Identify participatory approaches that ensure a just distribution of NbS impacts
- Outlining knowledge gaps, research opportunities and governance recommendations for the just implementation and maintenance of NbS.

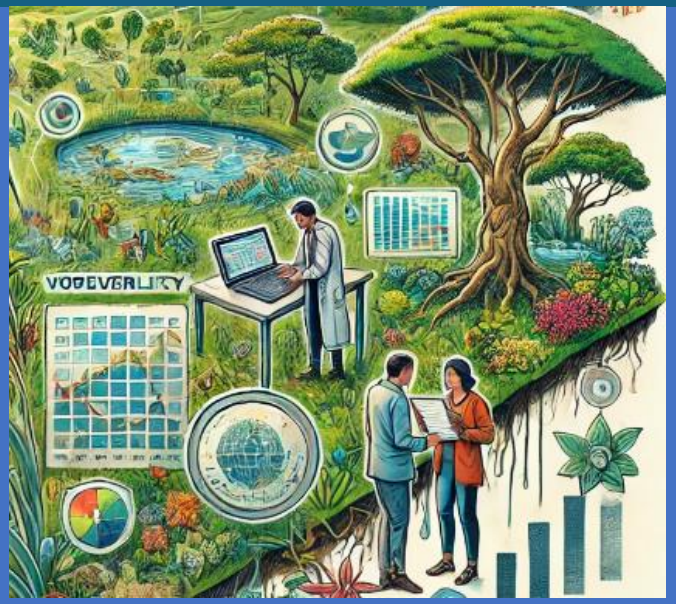
Supervisors:
Johannes Langemeyer (ICTA)
David Camacho-Caballero (ICTA)

Research topic: ***Assessing the performance of Nature-Based Solutions for Reducing Vulnerability to Climate Change Impacts. Conceptual and Methodological Approaches for Ex-Ante and Ex-Post Monitoring***

Research line: Nature-based Solutions (NbS), climate change adaptation, vulnerability reduction, environmental justice

Research group: Commit2Green/FairNature

CONTACT: Johannes Langemeyer
johannes.langemeyer@uab.cat



Background: Despite the growing interest in Nature-based Solutions (NbS) for climate change adaptation, a significant gap remains in the literature regarding effective monitoring practices to evaluating their long-term impacts. While robust evidence on NbS outcomes could help mainstream their application in climate adaptation strategies, monitoring these interventions poses substantial challenges. Issues such as the complexity of tracking ecological and social outcomes, spatial scales and multifunctionality, variability in local contexts, and the long timelines needed to observe meaningful changes make it difficult to establish standardized, reliable assessment frameworks. Bridging this gap is crucial for validating NbS effectiveness and informing policy and practice.

Aim: to conduct a comprehensive literature review exploring the challenges and opportunities in assessing NbS outcomes, with a focus on monitoring post-implementation trends in social and ecological vulnerability and including satisfaction assessment, while addressing the principles and practices of environmental justice in scaling NBS designs.
The systematic literature review will update an existing database created by the research group members.

Main tasks:

- Identify primary frameworks and conceptual models used to assess the performance of NbS in the context of climate change adaptation in different scaling approaches
- Expand an existing NBS database by conducting a systematic literature review of methodological approaches for measuring NbS effectiveness, including ground-based techniques, remote sensing, and other assessment methods, along with the indicators used.
- Outline Knowledge Gaps and Research Opportunities and provide governance recommendations to improve NbS impact evaluation and NBS scaling designs.

Supervisors:
Johannes Langemeyer (ICTA)
Anna Marin Puig (ICTA)

Research topic: *Uncovering digital relational values embedded in food*

Research line: environmental value theory, social media data analysis

Research group: BIG 5

CONTACT: Johannes Langemeyer
johannes.langemeyer@uab.cat

Relational values are described as socio-cultural, anthropocentric, yet non-instrumental values rooted in reciprocal and caring social-environmental relations, thus fundamental to just and sustainable transformations. While originally associated with indigenous communities only, several studies recently showed their cultural manifestation in western societies. The research aims **to uncover relational values embedded in food**, in their everyday expression on social media. This work will contribute to the conceptual and methodological framework development within the ERC Project BIG5.

Main aim: to perform an assessment of relational values about food on social media

Main tasks:

- Literature review to define RV coding categories
- Coding social media data
- Statistical analysis to relate RV to social-ecological patterns in the offline reality

Supervisors:
Fulvia Calcagni; Johannes Langemeyer (ICTA)

ICTA-UAB

BIG5

erc
European Research Council
Established by the European Commission

Research topic: *Uncovering digital relational values in the context of climate change*

Research line: environmental value theory, social media data analysis, climate change

Research group: BIG 5

CONTACT: Johannes Langemeyer
johannes.langemeyer@uab.cat

Relational values are described as socio-cultural, anthropocentric, yet non-instrumental values rooted in reciprocal and caring social-environmental relations, thus fundamental to just and sustainable transformations. While originally associated with indigenous communities only, several studies recently showed their cultural manifestation in western societies. The research **aims to uncover relational values in the context of climate change**, in their everyday expression on social media. This work will contribute to the conceptual and methodological framework development within the ERC Project BIG5.

Main aim: to perform an assessment of relational values about climate change on social media

Main tasks:

- Literature review to define RV coding categories
- Coding social media data
- Statistical analysis to relate RV to social-ecological patterns in the offline reality

Supervisors:
Fulvia Calcagni; Johannes Langemeyer (ICTA)

ICTA-UAB

BIG5

erc
European Research Council
Established by the European Commission

International Centre for the
Mediterranean Biosphere Reserves
under the auspices of UNESCO
Plaça del Castell, s/n
08729, Castellet i la Gornal (Barcelona)

Open Call for an MSc student

- **Title/Topic:** Communication approaches for Mediterranean biosphere reserves through the UNESCOMED Center

- **Candidate:** Student of the Master in Interdisciplinary Studies in Environmental, Economic and Social Sustainability (MEISAES, ICTA-UAB) or the Joint European Master in Environmental Studies: Cities and Sustainability (JEMES CiSu).

- **Specialization of the master's program**: Global Change.

- **Description (objectives, methodology, and expected results of the thesis):**
  The aim of this thesis is to study and contribute to the communication approaches for Mediterranean biosphere reserves through the the International Centre for the Mediterranean Biosphere Reserves under the auspices of UNESCO (UNESCOMED) and its Mediterranean Biosphere Reserve Thematic Network (MedMaB).
  Mediterranean biosphere reserves are performing paramount roles that society in general and decision-makers in particular, or even scientists, sometimes ignore. As a case in point, in times of Global Change, many biosphere reserves serve as sites for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems. Mediterranean biosphere reserves are places that provide local solutions to global challenges, where each site promotes solutions reconciling the conservation of biodiversity with its sustainable use.

  Biosphere reserve managers are often overwhelmed by their day to day pressing obligations, frequently with scarce resources, which undermine their dedication to communication issues. To such a

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point, that sometimes not even successful experiences in a given biosphere reserve find their way to be shared to teams from other biosphere reserves, international visitors or even inhabitants from the same region.

In this sense, UNESCOMED and its MedMaB, may serve as tools to contribute to improve this key issue for Mediterranean biosphere reserves.

- **Supervision/advisor:** The thesis will be co-directed by Dra. Roser Maneja and Dra. Laia Calaf
- **Institution:** Autonomous University of Barcelona (UAB) and International University Campus for Mediterranean Biosphere Reserves -*UNESCOMED C2 Center under the auspices of UNESCO*.

- **Remarks and requirements:** Written proficiency in English is required. French knowledge would be desired.

- **Output:** MSc-thesis & (co-)authorship of a scientific article.
- **Timing:** February – June 2025
- **Contact:**

  If you are interested on writing your MSc thesis on this topic or ask anything about the project, please contact: laia.calaf@ctfc.cat and roser.maneja@uab.cat.

International Centre for the
Mediterranean Biosphere Reserves
under the auspices of UNESCO
Plaça del Castell, s/n
08729, Castellet i la Gornal (Barcelona)

Open Call for an MSc student

- **Title/Topic:** Data and indicators assessment for a more effective decision-making processes for Mediterranean biosphere reserves managers (UNESCO MaB programme).

- **Candidate:** Student of the Master in Interdisciplinary Studies in Environmental, Economic and Social Sustainability (MEISAES, ICTA-UAB) or the Joint European Master in Environmental Studies: Cities and Sustainability (JEMES CiSu).

- **Specialization of the master's program**: Global Change.

- **Description (objectives, methodology, and expected results of the thesis):**
  The aim of this study is to assess data and indicators that could be made available to Mediterranean biosphere reserves managers, especially those that could facilitate their reporting compromises towards UNESCO MaB Programme. On one side, sometimes managers are overwhelmed by questionaries, requests for data and indicators… addressed from all kinds of institutions and a variety of purposes. Requests often overlapping to their day to day pressing obligations, frequently with scarce resources, which lead to answer them in a very unprecise way or do not answer them at all. In addition, though, they do have compulsory information and indicators to collect, for example those regarding their evaluation and reporting compromises towards UNESCO MaB Programme. On the other side, more and more data and indicators can be obtained from sources independent from biosphere reserve managers. The objective would be to identify those obligations, and to detect, through applied research, nowadays sources of information and indicators that could be made available to managers and related decision-makers.

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- **Supervision/advisor:** The thesis will be co-directed by Dra. Roser Maneja and Dra. Laia Calaf
- **Institution:** Autonomous University of Barcelona (UAB) and International University Campus for Mediterranean Biosphere Reserves -*UNESCOMED C2 Center under the auspices of UNESCO*.

- **Remarks and requirements:** Written proficiency in English is required. French knowledge would be desired.

- **Output:** MSc-thesis & (co-)authorship of a scientific article.
- **Timing:** February – June 2025
- **Contact:**

  If you are interested on writing your MSc thesis on this topic or ask anything about the project, please contact: laia.calaf@ctfc.cat and roser.maneja@uab.cat.

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Plaça del Castell, s/n
08729, Castellet i la Gornal (Barcelona)

Open Call for an MSc student

- **Title/Topic:** Encouraging data availability for scientists studying Mediterranean Biosphere Reserves, to promote more effective decision-making processes (UNESCO MaB programme).

- **Candidate:** Student of the Master in Interdisciplinary Studies in Environmental, Economic and Social Sustainability (MEISAES, ICTA-UAB) or the Joint European Master in Environmental Studies: Cities and Sustainability (JEMES CiSu).

- **Specialization of the master's program**: Global Change.

- **Description (objectives, methodology, and expected results of the thesis):**
  The aim of this study is to encourage data availability for scientists studying Mediterranean Biosphere Reserves, to promote more effective decision-making processes (UNESCO MaB programme).
  Sometimes managers are overwhelmed by questionaries, requests for data and indicators… addressed from all kinds of institutions and a variety of purposes and sometimes repetitive totally or partially. These requests often overlap to their day to day pressing obligations, frequently with scarce resources, which lead to answer them in a very unprecise way or do not answer them at all. In addition, they do have some compulsory information and indicators to collect, for example for those regarding their evaluation and reporting compromises towards UNESCO MaB Programme. At the same time, more and more data and indicators can be obtained from sources independent from Biosphere Reserve managers. All these data might prove useful to scientists studying Mediterranean Biosphere Reserves. Thus, the objective of this thesis would be to identify data needed for managers to fulfil their obligations, and which could be the approaches to make it available to scientists, to

promote more effective decision-making processes in the Mediterranean region.

- **Supervision/advisor:** The thesis will be co-directed by Dra. Roser Maneja and Dra. Laia Calaf
- **Institution:** Autonomous University of Barcelona (UAB) and International University Campus for Mediterranean Biosphere Reserves -*UNESCOMED C2 Center under the auspices of UNESCO*.

- **Remarks and requirements:** Written proficiency in English is required. French knowledge would be desired.

- **Output:** MSc-thesis & (co-)authorship of a scientific article.
- **Timing:** February – June 2025
- **Contact:**

  If you are interested on writing your MSc thesis on this topic or ask anything about the project, please contact: laia.calaf@ctfc.cat and roser.maneja@uab.cat.

RES-MAB
Empowering Change/Embracing Resilience

Open Call for an MSc student

- **Title of the thesis:**

Environmental Governance and Public Funding in practice. Effective implementation of international projects.

- **Supervisor(s):**

The thesis will be supervised by Dr. Roser Maneja (Roser.Maneja@uab.cat).

- **Specialization of the master's program** to which the TFM would belong:

Preferably students from the **Ecological Economics** or the **Global Change** specialisations.

- **Description** (objectives, methodology, and expected results of the thesis):

Biosphere Reserves (BR) are examples of blending biological and cultural diversity par excellence. An UNESCO's conservation tool aiming to integrate environmental conservation and local populations. Hence, BR have a great potential to enhance the resilience of landscapes and local populations in the face of Global Change. Moreover, the CTFC undertakes research on socioecological resilience of landscapes and the development of innovative landscape planning and decision-making tools, contributing to accelerate the transformation of Mediterranean BR towards more adaptive, cohesive and resilient landscapes.

When it comes to Environmental Governance and Public Funding, lack of financial resources is not always the obstacle. Sometimes the true challenge is the effective implementation of international projects at the local level. Because of this, in the framework of the PRIMA-funded project RES-MAB, we launch a call for a master's research that (1) analyses the keys to achieve effective implementation of international socio-environmental projects at a local scale in protected areas, (2) evaluates the factors related to social reluctancy to implement public funded projects and initiatives on the ground, and (3) proposes an action plan to overcome these barriers in the case of the implementation of the WEFE NEXUS Solutions in RES-MAB Biosphere Reserves.

Depending on the student's profile and background, the work will be further adapted to her/his interests, and this broad goal will be restricted to affordable research objectives and questions.

PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION IN THE MEDITERRANEAN AREA

This project is part of the PRIMA programme supported by the European Union

RES-MAB
Empowering Change/Embracing Resilience

Open Call for an MSc student

- **Title of the thesis:**

Evaluating the impact of Mediterranean Biosphere Reserves (BRs) on social-ecological resilience.

- **Supervisor(s):**

The thesis will be supervised by Roser Maneja (Roser.Maneja@uab.cat) and Esteve Viñals (PhD student)

- **Specialization of the master's program** to which the TFM would belong:

Student of the master's degree in interdisciplinary studies in Environmental, Economic and Social Sustainability (ICTA-UAB). Specialization in Science and Management of Global Change.

- **Description:**

The **RES-MAB Project**, launched this year, aims to implement integrated Nexus solutions—connecting water, energy, food, and ecosystems—to accelerate the transformation of Mediterranean biosphere reserves toward more resilient landscapes adapted to global change.

As part of the project, we seek a student with a comprehensive and global vision to study **social-ecological resilience** within these biosphere reserves. This research will build upon previous work and continue utilizing existing data to deepen the understanding of resilience strategies. This work will involve conducting a Delphi process to gather expert insights from various Mediterranean biosphere reserves, analyzing landscape transformation, social and economic impacts, and evaluating current management strategies and actions.

A key focus will be on leveraging successful experiences and valuable practices across the Mediterranean region to identify challenges and opportunities in biosphere reserve management. These may include balancing conservation with local development, addressing climate change, fostering community engagement, and exploring innovative solutions.

The ideal candidate should have a strong interest in the functioning and management of protected areas, as well as in understanding and analyzing resilience measures within complex landscapes. Proficiency in written English is essential, and knowledge of French is highly desirable.

PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION IN THE MEDITERRANEAN AREA

This project is part of the PRIMA programme supported by the European Union

Objectives

Therefore, the objectives of this work will provide the opportunity to understand firsthand insights in order to:

1. **Evaluate Socio-Ecological Resilience in Biosphere Reserves**: Support the project actions on the development of resilient Mediterranean landscapes adapted to environmental and socio-economic changes.
2. **Monitor and Leverage Existing Management Strategies**: Assess current management approaches in Mediterranean biosphere reserves and build on successful regional experiences to document existing strategies.
3. **Identify Key Challenges and Opportunities**: Analyze the main challenges encountered by biosphere reserve management, addressing socio-economic pressures, and adapting to global changes.

Methodology

As methodology, the following steps will guide the research methodology, focusing on expert-driven analysis and data-driven conclusions to contribute to evaluating resilience in biosphere reserves:

(i) Based on existing data and, through a Delphi process, understand and process expert opinions from the Mediterranean Biosphere Reserves. (ii) Analyze the data gathered from multiple rounds of consultation, linking the findings to resilience theory. (iii) Apply the insights gained to revise the MSc thesis and prepare it for submission to a peer-reviewed journal for publication.

Expected Results

The expected results are to deepen the firsthand understanding and knowledge of socio-ecological resilience strategies applied in the Mediterranean Biosphere Reserves. This will lead to the development of an MSc thesis and the future (co-)authorship of a scientific article.

RES-MAB
Empowering Change/Embracing Resilience

Open Call for an MSc student

- **Title of the thesis:**

Integrating Sustainable Tourism into Business Models for Non-Wood Forest Products in Mediterranean Biosphere Reserves.

- **Supervisor(s):**

The thesis will be co-directed by Dr Roser Maneja and Marta Rovira (PhD student)

- **Specialization of the master's program** to which the TFM would belong:

Student of the master's degree in interdisciplinary studies in Environmental, Economic and Social Sustainability (ICTA-UAB). Specialization in Ecological Economics or Science and Management of Global Change.

- **Description:**

The PRIMA-funded project RES-MAB is seeking a master's student to conduct a systematic literature review on integrating sustainable tourism into business models for non-wood forest products in Mediterranean biosphere reserves as part of a master's thesis. This research will contribute to understanding how sustainable tourism can enhance the economic and environmental value of non-wood forest products, promoting both conservation and local development in these protected areas.

- **Institution:** Forest Sciences and Technology Centre of Catalonia (CTFC) and Autonomous University of Barcelona (UAB)
- **Remarks and requirements:** Written proficiency in English is required.
- **Output:** MSc-thesis & (co-)authorship of a scientific article.
- **Timing:** March to July 2025
- **Contact.** If you are interested on writing your MSc thesis on this topic or ask anything about the project, please contact: roser.maneja@uab.cat and marta.rovira@ctfc.cat

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