



Call for Training Program: Online Course + Seed Grants

Tropical Forests in the Americas: Transdisciplinary Approaches to Changing Environments

Launch: April 18, 2024

Deadline for Expression of Interest: May 20, 2024

Background

This training program is hosted by the Inter-American Institute for Global Change Research (IAI) in partnership with the Santa Catarina Research Foundation (FAPESC). This initiative is part of the IAI's commitment to strengthening capacities for transdisciplinary research in the Americas to address Global Environmental Change. A transdisciplinary approach expects stakeholders, including decision and policymakers, implementers, local communities, and practitioners, to work with social and biophysical scientists in collaborative and iterative co-development processes. Transdisciplinary research is problem-driven and solution-oriented, integrating knowledge, tools, and ways of thinking from multiple disciplines and actors from the public and private sectors. Stakeholders are included from the initial project framing and throughout the project life cycle in an equitable and ethical collaborative process.

Environmental governance frameworks, such as the Sustainable Development Goals and the Kuming Montreal Biodiversity Framework under the Convention on Biological Diversity, the United Nations Framework for Climate Change Convention, among others, provide the mechanisms and mandates for urgent action to meet the challenges posed by global environmental change. Tropical Forests play a critical role in maintaining the world's biodiversity, addressing the climate crisis, and sustaining local communities and national economies.

The Americas contain a great richness of Tropical Forests, understood here as any forest ecosystem located between the Tropic Cancer and the Tropic of Capricorn. Efforts at a regional scale to contain deforestation and guarantee the sustainability of those ecosystems can have a global impact.

Changes that are detrimental to tropical forests include climate change, deforestation, unregulated agriculture, illegal wildlife trade, water contamination, and the destruction of Indigenous and local communities whose survival depend on the forest system. Other immediate concerns include the release of new pathogens resulting from the destruction of biodiversity and the related effects of environmental degradation on human health. This training program aims to promote transdisciplinary research to develop innovative



solutions to these challenges. The program explores the integration of academic and non-academic knowledge towards the sustainability of tropical forests and its functions across local, regional, and global scales. The transdisciplinary approach can serve as a framework to support local institutions and the dialogue with Indigenous and local populations who safeguard tropical forests, to identify recommendations relevant to public policy.

Main objective

This training program aims to enhance the capacity of professionals and institutions across the Americas to apply the transdisciplinary approach to address the challenges facing tropical forests through active engagement with the communities whose livelihoods depend on them. Participants will develop skills in communication and engagement with diverse stakeholders, focusing on the science-policy interface and the genuine participation of communities regarding the most critical priorities for tropical forests' sustainability, including their interactions with other ecosystems, and agricultural and urban landscapes.

Specific Objectives

- Promote research that includes direct dialogue with Indigenous and Local Knowledge (ILK) and other knowledge systems, to generate and recognize innovations to solve urgent societal and environmental problems of tropical forest ecosystems and livelihoods;
- Foster research collaboration at the regional level by linking researchers across disciplines, policymakers, and locally based leaders from different countries, thus strengthening a regional Americas transdisciplinary network on tropical forests;
- Strengthen transdisciplinary research capabilities, particularly of early to mid-career professionals and individuals from groups that are underrepresented in the sciences.

Format

Participants will receive 30 hours of virtual (asynchronous and synchronous) training over 2 months and will then submit seed grant research proposals for a 12-month transdisciplinary research project. Proposals will be selected for funding by a competitive peer review process, and will begin implementation in the last quarter of 2024. For more information see the item "Phases".

Target Audience



Researchers, policymakers and community leaders involved in processes of knowledge co-production within tropical forests in the Americas, understood here as any forest ecosystem located in the American continent between the Tropic Cancer and the Tropic of Capricorn, or the associated natural or managed ecosystems that can affect them. Priority will be given to projects with focus on the Amazon, due to its regional and global importance, and on tropical biodiversity hotspots in the Americas, such as the Atlantic Forest, the Caribbean islands, the mountain forests, the Mesoamerican forests and the Cerrado biome. Applications that have direct engagement with the demands of the people whose livelihoods depend on those forests, especially Indigenous peoples and other traditional populations, will be well evaluated.

All applicants should be citizens of IAI member states: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Panamá, Paraguay, Peru, United States of America, Uruguay and Venezuela.

Written and oral proficiency in English or Spanish languages are required.

In Brazil, academic teams and individual applicants from the state of Santa Catarina are encouraged to apply, since additional funding will be available through the Santa Catarina Research Foundation (FAPESC) for seed gphase 2 (seed grants).

Thematic Areas

This call aims at transdisciplinary teams working to produce innovative solutions to challenges related to the following thematic areas:

1. Deforestation, sustainable development, and locally led economy
2. Ecosystem Function, Connectivity, and Climate Change
3. Environmental Justice and Governance

Examples of relevant topics inside these broad thematic areas include (but are not limited to): use of geospatial data and geographic informational systems to halt deforestation and regenerate degraded land trough participatory practices; genetic conservation; locally led innovations to bioeconomy and the sustainable use of non-timber products; inclusive projects of territorial management in forests and related urban and agricultural areas; community-led biodiversity conservation strategies; climate change implications and adaptation strategies on tropical forests local populations; indigenous territories and other communal land ownership in tropical forests; institutional frameworks for sustainable development in tropical forest areas.

Application Process



Two types of Applications are possible:

1. Transdisciplinary (TD) Teams

TD teams should comprise three to six people, including at least 1 non-academic stakeholder, 1 social sciences specialist and 1 natural sciences specialist. Each team should designate a team lead, who will submit the Expression of Interest (EoI) on their behalf. Early and mid-career scholars and people from historically underrepresented groups in the sciences are encouraged to apply as team leads. Multinational teams with participants from multiple IAI member states will be viewed favorably.

Non-academic stakeholders include indigenous leaders, leaders of local communities and local civil society associations; different representatives from organized civil society; representatives from the private sector; indigenous and community members related to the topic of interest; policymakers and implementers, at the national, sub-national and local levels.

Key disciplines from the natural sciences include, but are not limited to: conservation biology, ecology, engineering, geosciences, hydrology, epidemiology and public health, and meteorology.

Key disciplines from the social sciences include but are not limited to: anthropology, economics, sociology, political ecology, and human geography.

TD teams will be asked to submit:

- A CV and basic information for the team lead
- Basic information for team members
- 300 words abstract on a relevant topic that the team wants to investigate regarding tropical forests in the Americas, ideally relating to the priority topics listed above
- 200 words description of relevant experience in the topic
- 200 words description of relevant experience in stakeholder engagement
- 100 words description of the interest in participating in the training program

2. Individuals

Individual applications are accepted from non-academic stakeholders interested in gaining knowledge about the transdisciplinary approach and possibly being matched with TD teams. Examples of non-academic stakeholders are listed above.

Individuals will be asked to submit:

- 200 words abstract on personal background



- 200 words description of relevant experience in tropical forests
- 100 words description of the interest in participating in the training program

Interested TD team leads and individuals should apply to participate by **completing the [Expression of Interest form online](#)**.

Language: Expressions of Interest will be accepted in **English or Spanish**.

Application period: Expressions of Interest will be accepted from **April 18th to May 20, 2024**.

Individuals who are members of groups that have been **historically underrepresented** in the sciences **are encouraged to apply** and take key responsibilities in the project, including as team lead. Underrepresented groups include, but are not limited to, women, Indigenous Peoples, persons with disabilities, members of visible minority/racialized groups, and members of LGBTQ+ communities.

Up to 15 TD teams and 30 individual applicants will be selected for Phase 1 of the program. Teams will be selected according to the adequacy of the team to the call, the diversity of the teams and previous experience of team members in working with diverse knowledge systems. Individual applicants will be selected according to their background and interest in fostering transdisciplinary knowledge and ensuring diversity in the group of course participants.

Phases

The training program is divided into two phases (further details below):

Phase 1: Online Training

Virtual course combining asynchronous modules and synchronous sessions to foster capacities in transdisciplinary approaches and grant writing.

Phase 2: Seed-Grant Funding (12-18 Months)

Implementation of the best proposals delivered after phase 1 through seed grants.

Phase 1: Online training

Asynchronous self-paced online course on Transdisciplinary Research in LAC for Global Environmental Change in four modules.

Module 1: Foundational Concepts in Transdisciplinarity (TD)

Module 2: TD for Transformative Global Environmental Change (GEC) - Lessons from Latin America & the Caribbean (LAC)



Module 3: Building collaborations among diverse knowledge systems
Module 4: Project Design for Equitable and Ethical TD

Total of 20 hours of Asynchronous Course.

Each module will be coupled with synchronous live sessions. Presentations and discussion will be in English or Spanish with interpretation to both languages provided live. The sessions will be 90 minutes each, hosted on Zoom. Additional networking sessions will be hosted by the IAI transdisciplinary academy.

For more information c.f. ANNEX - Course Syllabus

To continue to Phase 2, TD teams will be expected to develop a full proposal for seed grant funding during the online course, which will be presented upon completion of Phase 1. At least 50% of team members should participate in 70% of virtual sessions for the team to be considered for Phase 2. Participants will be encouraged to network and build collaborations with other course participants during phase 1. Individual applicants can only move on to phase 2 if coupled with existing TD teams.

This phase is a stand-alone training course. A certificate will be provided.

Phase 2: Seed Grants

The projects delivered by teams at the end of phase 1 will be evaluated by double-blind peer review processes, and will be eligible for seed grants of up to USD 50.000,00. The team lead should be able to receive and manage international research funds, including sub-awards to institutions in other countries.

Teams should be composed of citizens from at least two countries among the IAI member states. The seed grants aim to foster multinational and multidisciplinary collaboration, develop proposal writing skills, strengthen management capacity for international grants, and to increase the participation of small countries in IAI research programs.

Up to 5 projects will be supported by the IAI and should be led by IAI member state citizens working on tropical forests located in those countries.

Additional funding for up to 5 projects will be available through FAPESC for projects led by researchers from the Santa Catarina state. FAPESC will launch a supplementary notice to this Call, containing the specificities of the funding, in the second half of 2024, after the completion of phase 1 of the training program.

Seed grants awardees will receive further in-person training in workshop format, gathering experts and policymakers in the field of tropical forests in the Americas.



Co-funding requirement for seed grant proposals

There is an expectation that the teams will secure co-funding for seed grant proposals so that the resources necessary to carry out projects will not be fully dependent on the IAI grant. Co-funding won't be a requirement to apply at this stage but is an important factor for projects being considered for these grants. The IAI anticipates greater co-funding in upper and upper-middle-income countries with greater science and technology development. Co-funding encourages additional resources —funding, knowledge, and expertise—to the program. It increases the ownership of the project by participants and contributes to the establishment of strong partnerships. Co-funding also helps the IAI to focus its funding on supporting the incremental cost of projects, with an emphasis in backing IAI member countries that are in more need of support to develop their science and technology capacity.

Co-funding is defined as resources that are additional to the IAI grant and that are provided by the grantee's institutions, governments (science funding agencies, other government bodies at the national, subnational, and local levels), other multilateral agencies, development cooperation agencies, the private sector, private foundations, civil society organizations, and various type of beneficiaries, for supporting the implementation of the proposal and the achievement of its objectives. Co-funding could take the form of financial or in-kind contributions. Eligible in-kind contributions include nonmonetary resources such as researchers' salaries or those from employees of organizations involved in the project; scholarships for students, valued at the regular rate of pay for the time devoted to the project; access to paid databases (incremental costs of access); analytical, professional, technical and other services (printing, editing, publishing, transportation, etc.) at customary rate for time; provision of or access to equipment and vehicles, and their supplies; space and facilities to be used for office work, fieldwork, meetings and community-based activities, valued at the fair rental rate; other supplies. Co-funding needs to take into account the specifics of the proposal: partners engaged and their roles, work plan and types of activities, and timing. The IAI will recognize only those in-kind contributions that are fully documented and considered essential to carry out the work.

Timeline

April 18	Launch Call
May 20	Deadline Eol
June 3	Notification of Selection



June 7	Opening Session
June 25 to August 1	Online course
August 30	Deadline Proposals Seed Grants
October	12 Months Seed Grants Begin

If you have any queries, please contact us at: science@dir.iai.int

Organizers

IAI

The Inter-American Institute for Global Change Research (IAI) sits at the intersection of science and policy. As a regional intergovernmental organization, with 19 member countries of the Americas, the IAI aims to provide nations with the tools and institutional capacities to better face the challenges posed by global change. Global environmental change (GEC) is defined by the IAI as the interactions of biological, chemical, physical, and social processes that regulate changes in the functioning of the Earth system, including the particular ways in which these changes are influenced by and impact on human activities. This collaborative, multinational effort is guided by the understanding that global change is urgent, complex, dynamic, and with considerable uncertainties. IAI supports science that improves the Americas' ability to cope with and thrive under global change, making a positive impact on the sustainability of the region. Innovative science and training approaches are needed to increase institutional and research capacities across the Americas. These efforts are grounded in the IAI's foundational principles, identified in the Strategic Plan: transdisciplinary (TD) science, participatory and inclusive design, innovative and solution-based science, multi-scalar analysis and integration, open data/science, scientific outreach and knowledge mobilization, alignment with environmental governance frameworks, where appropriate, and strengthening capacities across the science-policy interface. Details are provided in the IAI's [science agenda](#) and [strategic plan](#).

FAPESC

The Santa Catarina Research Foundation (FAPESC), founded on January 9, 1997, is a non-profit funding agency that executes the Santa Catarina Brazilian state's science, technology, and innovation policy (STI). Its mission has been consolidated over the years, always seeking to promote the Santa Catarina STI ecosystem through the promotion and integration of its agents, aiming to advance all areas of knowledge, regional balance,



sustainable economic development, and improving the quality of life of Santa Catarina. Its vision is to be a national reference as an institution that promotes economic and social development. A signatory to the Sustainable Development Goals (SDGs) of the 2030 agenda proposed by the United Nations (UN), FAPESC seeks international cooperation agreements to enable and expand knowledge, crossing borders in research and innovation.



ANNEX

Syllabus for Asynchronous Curriculum & Synchronous Workshops

Advancing Transdisciplinarity for Global Environmental Change: Lessons from Latin America & the Caribbean

Introduction to the Course:

This curriculum utilizes multiple learning resources to introduce participants to solutions-oriented, transdisciplinary (TD) research in the context of global environmental change in Latin America and the Caribbean. In designing this course, we consider transdisciplinary research collaboration as a complex social practice heavily shaped by local contexts and their diverse political, economic, cultural, and ecological conditions. Unlike other training programs, we draw upon ground-level fieldwork and country-case evidence, which makes this learning design applicable to individuals and teams interested in tackling global environmental challenges across local, regional and national scales.

Each module invites learners to review, reflect, and contribute to lessons by highlighting theoretical approaches, experiential accounts, and calls to action for transformative global environmental change research. Each module includes: instructional lectures via visual presentations; a compendium of case study chapters highlighting real-world experiences with transdisciplinary (TD) research; short, engaging videos with researchers, funders, community members, and policy-makers; and curated reading recommendations.

Module 1: Foundational Concepts in Transdisciplinary (TD) Research

Module 1 Learning Outcomes:

- Learners will have a good working knowledge of TD concepts and approaches that will enable them to do collaborative work.
- Learners will understand the responsibilities and accountabilities of actors involved in TD work, in relation to the scientific community, policy makers, and further socio-political dimensions that may be relevant to TD research and practice.

Unit 1: Introducing TD Research for Global Environmental Change (GEC) & Differentiating it from other types of collaborative work

- Current definitions of TD work
- TD Approaches for Global Environmental Change (GEC) Research
- Contrasting Interdisciplinary (ID), Multidisciplinary (MD), and Transdisciplinary (TD) approaches to research

Unit 2: Situating TD for Global Environmental Change (GEC) in Latin America and the Caribbean (LAC) context

- Why TD research for GEC in LAC?
- Solutions-oriented, real-world based, and transformative research
- Working in complex local LAC contexts (social, ecological, institutional, and policy-making contexts)

Unit 3: Diverse Knowledge and Value Systems

- Streams of Knowledge
- Plurality
- Knowledge integration in Value Systems for Ecosystems in LAC contexts

Unit 4: Politics and Ethics of TD

- Who tells the story? Who has a voice? What are the local power dynamics within the research?
- Reflexivity in research
- Standpoint/Positionality in research
- TD as *a way of being*

Assigned Reading:

English:

- Rinaldi, Parisa Nourani. **Dealing with Complex and Uncertain Futures: Glimpses from Transdisciplinary Water Research.** *Futures : The Journal of Policy, Planning and Futures Studies*, vol. 147, 2023, pp. 103113-, <https://doi.org/10.1016/j.futures.2023.103113>.
- Garcia-Cartagena. M., Alonso-Yanez, G., House-Peters, L., and Bonelli, S. 2023. **Converging Boundaries: Transdisciplinary Experiences from Biodiversity Conservation Practices in Colombia, Uruguay and Chile (Introduction).** DIO Press.
- Moreno-Cely., A., Cuajera-Nahui., D., Escobar-Vasquez., C., Vanwing., T. and Tapia-Ponce., N. (2021). **Breaking monologues in collaborative research: Bridging knowledge systems through a listening-based dialogue of wisdom approach.** *Sustainability Science*, 16: 919–931. <https://doi.org/https://doi.org/10.1007/s11625-021-00937-8>

Español:

- Amigo Jorquera, Catalina and Urquiza Gómez, Anahí. 2022. **Transdisciplina e interfaz: dos lados de una misma forma.** *Inter- y transdisciplina en la educación superior latinoamericana: Reflexiones desde América Latina*, pg. 19-40. <https://libros.uchile.cl/1293>
- Ruano, J. C., Morillo, M. M., & González, F. J. Á.. (2018). **Educación transdisciplinar: formando en competencias para el buen vivir.** *Ensaio: Avaliação E Políticas Públicas Em Educação*, 26(100), 619–644. <https://doi.org/10.1590/S0104-40362018002601487>

Portugues:



- Lopes Pinheiro, S., & Pasquier, F. (2023). **Possibilidades de uma ética transdisciplinar frente as questões do Antropoceno.** *Revista Sergipana De Educação Ambiental* , 10 , 1–19. <https://doi.org/10.47401/revisea.v10.17680>
- Silva, A. W. L. da ., & Selig, P. M.. (2015). **Avaliação Ambiental Estratégica orientada pela transdisciplinaridade.** *Engenharia Sanitaria E Ambiental*, 20(2), 165–174. <https://doi.org/10.1590/S1413-41522015020000108213>

Curriculum Activities for the Live Synchronous Workshop for Module 1 (90 Minutes):
The live workshops provide an opportunity for learners to exchange knowledge and expertise in a collaborative learning environment. The discussion prompts will focus on and further build upon the key themes from the asynchronous module. Sample prompts for discussion include:

1. Describe the site of your research considering the complex social-ecological dimensions, potential conflicts, power structures, and institutional context.
2. Reflect on your positionality in the research. Who are the different voices that will be important for including in your research? What are methods or mechanisms for including diverse voices in your research context?
3. How could science be more inclusive of different knowledge and value systems? What is/would be your role?
4. How could a transdisciplinary approach offer different potential solutions to GEC challenges than conventional research approaches.

Module 2: Transformative TD for Confronting Global Environmental Change (GEC) - Lessons from Latin America & the Caribbean (LAC)

Module 2 Learning Outcomes:

- Learners will enhance their knowledge and understanding of the practice of TD in complex LAC settings.
- Learners will examine opportunities and barriers to strengthen collaborative learning in TD initiatives.
- Learners will exchange knowledge and experiences for collaborative work that facilitates engagement of relevant groups, disciplines and non-government actors in TD in LAC.

Unit 1: Collaboration in Complex Settings in LAC

- Knowledge Co-production
- TD across scales (local, regional, national and multinational contexts)
- Identifying, engaging with, and integrating communities, local actors, and diverse use rights holders in TD research
- Engaging and integrating policy-makers into TD research
- Decision-making in complex settings



Unit 2: Actionable Knowledge: TD for Science-Policy Interface

- Making knowledge actionable: Communicating and bridging the knowledge-action gap
- Policy Makers and the Science-Policy Interface
- Connecting research and policy communities
- Drivers and barriers of knowledge-action in the LAC region
- Policy cycles, policy action, policy windows, and policy mechanisms
- Local communities and implementation barriers

Unit 3: Transformative Learning Processes for TD

- Learning loops for transformation
- Social learning processes
- Grassroots TD co-production processes
- Science-Policy interface

Unit 4: Effective Communication Strategies for Transformative TD

- Translating technical, scientific and policy knowledge for communities, policy makers, and non-technical audiences
- Diverse Communication Strategies: Local communities and stakeholders with limited knowledge or different language; practitioners with technical knowledge in government and NGOs; high-level decision makers (each group requires a different communication strategy)
- Creative communication strategies for doing TD in LAC

Assigned Reading:

English:

- De La Rosa, G., EM Muñiz, CN El-Hani, D Ludwig. 2023. **Navigating between promises and realities of transdisciplinarity for environmental conservation** <https://www.researchsquare.com/article/rs-3263774/latest.pdf>
- Slater, Kimberley, and John Robinson. 2020. **Social Learning and Transdisciplinary Co-Production: A Social Practice Approach**. *Sustainability* 12, no. 18: 7511. <https://doi.org/10.3390/su12187511>
- Bolletín, P., CN El-Hani, D Ludwig. 2023. **The Challenges of Symmetrical Dialogue: Reflections on Collaborative Research in Northeast Brazil**. *Ethnobiology Letters* 14 (2), 47–55. <https://doi.org/10.14237/ebl.14.2.2023.1836>

Español:

- Zurbigger, C. 2022. Reflexiones sobre la política y el poder en los procesos de cambio transdisciplinar. In: *Inter- y transdisciplina en la educación superior latinoamericana: Reflexiones desde América Latina*, pg. 266-281. <https://libros.uchile.cl/1293>

- Guerrero-Gatica, M. y Pablo Achondo, P. 2022. **El bosque y sus habitantes: una discusión teórico-metodológica transdisciplinar del diálogo multiespecies.** *Etnobiología*, 2022, Vol 20, Issue 2, p136.
- *Escucha*: CuentaPapers Podcast NITES- Núcleo de Investigación en Interdisciplina y Transdisciplina para la Educación Superior, de la Universidad de Chile.
<https://open.spotify.com/show/6b2rol8n0PH6QGXXKGgiaxe?si=4c13d8b89c054eb0>

Portugues:

- Fontana, M. D., Moreira, F. de A., Serrao-Neumann, S., Lucertini, G., Maragno, D., & Giulio, G. M. D.. (2021). **Integrando conhecimentos para avançar na adaptação climática no nível local.** *Estudos Avançados*, 35(102), 143–157. <https://doi.org/10.1590/s0103-4014.2021.35102.009>
- Mertens, F., Távora, R., Santandreu, A., Luján, A., Arroyo, R., & Saint-Charles, J.. (2022). F., Távora, R., Santandreu, A., Luján, A., Arroyo, R., & Saint-Charles, J.. (2022). **Participação e transdisciplinaridade em Ecosáude: a perspectiva da análise de redes sociais.** *Saúde E Sociedade*, 31 (3), e190903pt. <https://doi.org/10.1590/S0104-12902022190903pt>

Curriculum Activities for the Live Synchronous Workshop for Module 2 (90 Minutes):

The live workshops provide an opportunity for learners to exchange knowledge and expertise in a collaborative learning environment. The discussion prompts will focus on and further build upon the key themes from the asynchronous module. Sample prompts for discussion include:

1. In small groups, develop a communication plan of your current research idea to a group that is not familiar with your professional training.
2. What strategies will you use to equitably and effectively engage with communities and local actors at each stage of your project development? What would knowledge co-production look like in your research site?
3. How do we more effectively link different sectors in tackling key science challenges? What should be the roles of each sector, including: public policy, academic research, and the private sector? How would your project engage these different sectors in addressing global environmental change problems in the context of your research?

Module 3: Capacity Building for Successful Collaborations in TD Research

Module 3 Learning Outcomes:

- Learners will understand that TD involves actors with key roles in research teams.
- Learners will become familiar with examples of effective community engagement processes for TD outcomes.
- Learners will understand the role of capacity building in strengthening TD teams for GEC in LAC.



Unit 1: Key Roles in TD Research Collaborations

- Knowledge Brokers, Boundary Spanners, Connectors
- TD Mediators, Socios/Partners, Liaisons
- Articulation work in TD Collaborations

Unit 2: Strategies for Facilitating Successful TD Research across Diverse Knowledge Streams, Values, and Priorities

- Strategies for collaborating across diverse and plural knowledge systems (traditional knowledge, indigenous knowledge, science-policy interface)
- Developing interpersonal relationships & trust building
- Decentering Academia and troubling understandings of expertise in TD research

Unit 3: TD Pathways in Practice

- Bottom – Up Mechanisms and Frameworks for cooperation and collaboration in research
- *Senderos de Impacto* (Impact Pathways)
- *Conversatorios* and Dialogue mechanisms

Unit 4: Capacity Building for Empowering Diverse Communities and Actors to Participate Equitably in TD Research

- Youth voices
- Local knowledge holders and diverse use rights holders (including, Indigenous Communities and Traditional Populations)
- Gender equity in research participation and decision making
- Policy makers and Transdisciplinary policy committees

Assigned Reading:

English:

- Bednarek et al. 2018. **Boundary spanning at the science–policy interface: the practitioners’ perspectives.** *Sustainability Science* 13, 1175-1183. <https://link.springer.com/article/10.1007/s11625-018-0550-9>
- Alonso-Yanez, G., L House-Peters, M Garcia-Cartagena, S Bonelli. 2019. **Mobilizing transdisciplinary collaborations: Collective reflections on decentering academia in knowledge production.** *Global Sustainability* 2, e5
- Renck, V., Ludwig, D., Bollettin, P., Reis-Filho, J. A., Poliseli, L., & El-Hani, C. N. (2023). **Taking fishers’ knowledge and its implications to fisheries policy seriously.** *Ecology and Society*, 28(2).
- *Supplemental Video:*The 2020 Narrm Oration: Associate Professor Michael-Shawn Fletcher Director of Research Capability at the Indigenous Knowledge Institute, Assistant Dean (Indigenous) in the Faculty of Science at the University of Melbourne – YouTube (<https://www.youtube.com/watch?v=sK7gGVhss7w>)



Español:

- Luna, M. y Velasco, J.L. 2022. **Integración disciplinaria: la importancia de la mediación y la “traducción” en el estudio de asuntos públicos complejos.** *Inter- y transdisciplina en la educación superior latinoamericana: Reflexiones desde América Latina*, pg. 41-54. <https://libros.uchile.cl/1293>
- Villalobos, P. y Bawarshi, G. 2022. **Red de Innovación Transdisciplinaria (ReD-IT): Transformando la ciencia, innovando con el territorio desde la Universidad de Talca.** *Inter- y transdisciplina en la educación superior latinoamericana: Reflexiones desde América Latina*, pg. 362-377. <https://libros.uchile.cl/1293>

Portugues:

- Maldonado-Torres, N. (2016). **Transdisciplinaridade e decolonialidade.** *Sociedade E Estado*, 31(1), 75–97. Recuperado de <https://periodicos.unb.br/index.php/sociedade/article/view/6080>

Curriculum Activities for the Live Synchronous Workshop for Module 3 (90 Minutes):

The live workshops provide an opportunity for learners to exchange knowledge and expertise in a collaborative learning environment. The discussion prompts will focus on and further build upon the key themes from the asynchronous module. Sample prompts for discussion include:

1. What collaborative strategies have you previously engaged in? What worked and what didn't work? Reflect on successes and obstacles in previous collaborative research.
2. In designing your current TD research project, what problem-solving mechanisms and/or community collaboration strategies are you considering using?
3. Drawing on your experience, provide examples of contrasts between scientific knowledge and local knowledge in TD work, and reflect on approaches for collaboration across diverse knowledge and value systems.

Module 4: Project Design and Management for Equitable and Ethical TD

Module 4 Learning Outcomes:

- Learners will be familiar with elements of TD project design for rigorous and ethical research including, project planning coordination, and implementation, and evaluation.
- Learners will evaluate place-based intersectoral policies, focused on integrated and collaborative TD as a vehicle to improve social and environmental determinants of particular sites.

Unit 1: TD Project Design

- Co-defining the research question and research approaches
- Engaging with different interested groups early in the design process
- Centering funds for Community: Equitable Budgets and Allocations



Unit 2: TD Project Management

- Power dynamics in TD Management
- Project Management: Planning, Coordination, and Administration
- Managing for Long-term project sustainability

Unit 3: Data Management Models for TD Research

- Methods to manage and integrate diverse datasets
- Data usability, accessibility, accountability and interoperability
- Responsible and ethical data management
- Open data
- F.A.I.R. data model

Unit 4: Monitoring, Evaluation and Assessment of TD Collaborations and Outcomes

- Frameworks for monitoring and evaluation of TD process
- Evaluation and assessment of TD collaboration and outcomes: Integrating Feedback into Ongoing Project Management
- Project Impacts & Outcomes: Scientific knowledge, Public Policy, Local, grounded implementation
- Project Reporting: Communicating results to different groups

Assigned Reading:

English:

- Bammer, G, O'Rourke, M, O'Connell, D et al. 2020, **Expertise in research integration and implementation for tackling complex problems: when is it needed, where can it be found and how can it be strengthened?** *Palgrave Communications*, vol. 6, article 5, <https://www.nature.com/articles/s41599-019-0380-0>.
- Jacobi, J. et al. 2022. **Transdisciplinary co-creation increases the utilization of knowledge from sustainable development research.** *Environmental Science & Policy*, Vol 129, 107-115. <https://doi.org/10.1016/j.envsci.2021.12.017>
- Harris, F. and F. Lyon. 2013. **Transdisciplinary Environmental Research: Building trust across professional cultures.** <https://www.sciencedirect.com/science/article/abs/pii/S1462901113000336>

Español:

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Curriculum Activities for the Live Synchronous Workshop for Module 4 (90 Minutes):
The live workshops provide an opportunity for learners to exchange knowledge and expertise in a collaborative learning environment. The discussion prompts will focus on and further build upon the key themes from the asynchronous module. Sample prompts for discussion include:

1. For your current project/initiative, consider your strategy for designing and managing your project from a TD approach. In particular, reflect on project design and management in relation to who directly benefits and has an active role in decision making. For example, How will you design the budget to be equitable, responsible, and sustain long term collaboration and implementation?
2. What challenges have you experienced when in previous project management (consider interactions with funders, universities, external agencies, internal team dynamics)
3. How do current calls for funding (CFPs) and available funding opportunities for research either foster or present obstacles to doing transdisciplinary research, such as co-producing science with non-academic communities and actors?
4. What impacts beyond science knowledge production can you imagine for your project outcomes? Who will benefit from your research, and how?
5. What is your strategy for designing your project/research from a TD approach?