

Session report: *Conservation science, policy and diplomacy - Notes from the trenches of transdisciplinary research* (19 June 2024)





Conveners and speakers of the session “Conservation science, policy and diplomacy: Notes from the trenches of transdisciplinary research” at the World Biodiversity Forum 2024, from left to right: Mollie Chapman, Eva Spehn, Clara Zemp, Mialy Rann Andriamahefazafy, Rita Zarcos Carrasco, Irina Wang, Jacqueline Oehri, Dechen Lham, Karen Bussmann-Charran.

Written by Clara Zemp, with input from all speakers and conveners.

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INTRODUCTION

Tackling biodiversity loss in an interconnected and changing world is a great societal challenge. It requires transdisciplinary solutions at the interface between conservation science, policy and international cooperation.

To address this issue, a session “Conservation science, policy and diplomacy: Notes from the trenches of transdisciplinary research” was organized at the World Biodiversity Forum in Davos, Switzerland on the 19th of June 2024. The session was co-chaired by Clara Zemp, from the Laboratory of Conservation Biology at the University of Neuchâtel member of the Swiss Young Academy; Eva Spehn from the Swiss Biodiversity Forum and Mollie Chapman from the Transdisciplinarity Lab, Department of Environmental Systems Science at Swiss Federal Institute of Technology (ETH) in Zurich.

The aim of the session was to provide a platform for sharing experiences related to transdisciplinary research that includes practitioners, intermediaries or groups outside of academia as part of the research process. The session focuses on sharing lessons and challenges in transdisciplinary research that are most often not included in scientific papers. The session started with six oral presentations providing valuable input, which was followed by a round table discussion.

INPUT BY THE SPEAKERS

Karen Bussmann-Charran, from Eawag, Aquatic Ecology (Dübendorf, Switzerland) introduced the recently established Translational Centre for Biodiversity Conservation in Switzerland. The Centre's mission involves creating working groups that bring together researchers with stakeholders from practice and policy. These groups jointly develop synthesis materials in various forms, and offer guidance on topics where research findings or practical expertise are already available but a comprehensive overview is lacking. The Centre adheres to a transdisciplinary and participatory approach, which has already guided the selection of working group topics, to ensure they are closely aligned with the preferences and requirements of stakeholders. The ultimate objective is to foster

collaboration and strengthen communication channels among practice, policy, and research within Switzerland's biodiversity and conservation landscape.

Rita Zarcos Carrasco from Centre for Marine and Environmental Research (CIMA), University of Algarve and ARNET- Aquatic Research Network (Faro, Portugal), highlighted the need for the scientific community to fundamentally transform how it conducts and communicates research using examples from her engagement with the EU Nature Restoration Law. The challenges that she identified include building inter- and transdisciplinary teams, finding a right balance within the space of communication and disciplinary knowledge, and the lack of institutional cooperation. She provided practical examples that outline how other scientific communities can support similar initiatives that aim to support evidence-informed policymaking.

Dechen Lham from the Swiss Federal Institute for Aquatic Science and Technology, Department of Environmental Social Sciences (Dübendorf, Switzerland) assessed the use of global science-policy product in national biodiversity policies. More specifically, she and her collaborators evaluated the extent to which the so-called “best available knowledge”, e.g. Summary for Policymakers of the Global Assessment of Biodiversity and Ecosystem Services of 2019 by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), has been integrated into the national biodiversity strategies and action plans in line with global biodiversity commitments. To do so, they conducted an online survey amongst the national focals of the UN Convention on Biological Diversity and Subsidiary Body on Science Technical and Technological Advice as well as the national coordinators of biodiversity strategies and action plans of respective countries. The forthcoming results could shed light on the effectiveness of global science-policy products in influencing national biodiversity strategies, and potentially identify barriers, challenges and opportunities for strengthening the coordination between global biodiversity assessments and national conservation strategies, thereby contributing to global biodiversity conservation efforts.

Irina Wang, an independent transition designer (irinaww.xyz) (North Vancouver, Canada) has been involved in projects alongside multinational corporations in the private sector like Hyundai, artistic communities like RISD, academic departments like Brown University CLPS, shrinking native communities in places like St. Paul Island, activist campaigns like Global

Zero, and intergovernmental organizations like the United Nations as they attempt to jointly address global issues. More recently, she has worked on Arctic climate change with the CHARTER project, interfacing with natural scientists, social scientists, reindeer herders, Indigenous Sámi, Finnish government officials, EU policymakers, among others. As she states: "Each collaboration is inherently transdisciplinary; with actors and stakeholders across complex systems are from a diverse range of sectors, professions, ethnicities, lived experiences." She also recognizes the complexity in any interventions that vary across space and time and involve feedback loops. She highlights the need to rely on participatory methods that can account for and translate power relations associated with decision making processes between groups and individuals. According to her, design is a major source of influence to tackle such translational challenges.

Mialy Rann Andriamahefazafy from the Geneva Science-Policy Interface, University of Geneva (Geneva, Switzerland) presented their programme of transdisciplinary collaboration involving global policymakers within the International Geneva ecosystem such as United Nations' agencies. She framed the various roles of science in global policy and highlighted the challenges associated with the collaboration between researchers and policymakers, such as misalignment in terms of objectives and timing, miscommunication, and misuse or misunderstanding of research results. As a way forward, she presented the Impact Collaboration Programme (ICP) which aims to support collaboration between researchers and global policymakers by providing seed funding and tailored advice. The ICP has supported such collaboration for five years, with activities including research co-production, scientific support to policy implementation, writing of policy briefs and scientific data visualization on different topics such as marine plankton diversity or environmental foresight. She concludes that actors often face similar collaboration challenges regardless of the underlying thematic. Transdisciplinarity with policymakers requires building a strong mutual understanding in the collaboration and being agile and ready to adapt considering the evolving (geo)political context.

Jacqueline Oehri from the University of Zurich (Zurich, Switzerland) presented the transdisciplinary living lab approach based in Zurich that addressed social-ecological challenges associated to supporting biodiversity goals in urban areas. In this lab, various actors collaborate such as international partners, early career researchers, senior experts,

public decision-makers and private landowners in Zurich and engage in participatory methods, student exchange and workshops. Her results indicate that privately managed spaces significantly contribute to habitat connectivity for biodiversity, as well as climate change mitigation in Zurich. Further, she and her collaborators identify the social-ecological benefits of participatory monitoring and find a trans-sectoral dialogue as provided by the living lab useful for the translation of global targets to a local context. By comparing these results to outcomes in Montreal, they aim to establish guidelines for living labs and decision-making that facilitate sustainable outcomes for biodiversity and people in urban areas, potentially beyond Zurich and Montreal. She shared various lessons learned during the process, such as the need to incentivize private landowners, to recognize the often small-scale and context-specific public interest in biodiversity, and to navigate conflict of interests.

ROUND-TABLE DISCUSSION

At first, speakers highlighted the need to distinguish science for policy and policy for science, with the former associated with the implementation of scientific knowledge within the policy process (i.e. the focus of the session), whereas the latter associated with the political framework enabling scientific advancements.

Furthermore, it was reminded that communication is a two-fold processes, involving two actors who hear, understand and respond to each-other. As such, common obstacles that were mentioned for a successful science-policy/diplomacy communication were related to interpersonal aspects such as the use of scientific jargon and the lack of scientific communication skills, also institutional with a lack of efficient science-policy communication channels and support. It was further noted that scientific and political communities have usually different objectives, work on different time scales, and commonly misunderstand what is expected from both sides.

The questions hence naturally arise: Who should be responsible for engaging in science-policy communication? Who should be involved? What are the leverage points for facilitating the dialogue? Answers may rely on policy makers and researchers with their resources and constraints; on professionals from the science-policy interfaces and organizations having intermediary functions; but also, on indigenous people while

accounting for time and ethical considerations, whereas NGOs can act as mediating platforms. Overall, these form a complex network of interacting actors, whose interactions might also be challenging or even break down depending on the power dynamics.

As a next step, there is a strong need to further develop the network of people working at the science-policy/diplomacy interface. This could take the form of a platform dedicated to sharing experiences and advancing the interface and/or organizing more sessions to exchange on lessons learnt and good practices. Collaboration and coordination among existing initiatives should be strengthened, for example with the [EU-funded BioAgora project](#), which aims to support sustainable transformation for biodiversity in Europe and the [Swiss Young Network for Science Policy and Diplomacy \(SYNESPOD\)](#) funded by the Swiss Young Academy.