

Transdisciplinary research

Justification, definition, realisation

11 July 2024 | The Agroecology TPP Dialogues | Michael Hauser

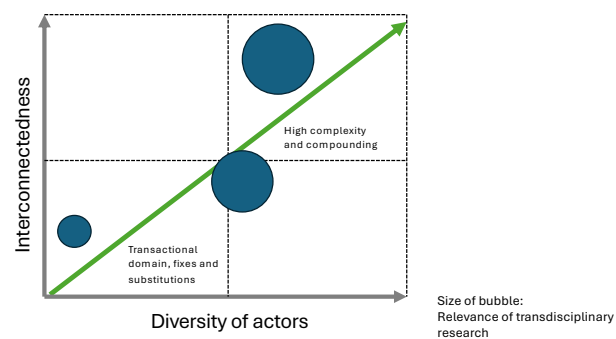


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Solutions must match the complexity of the system.

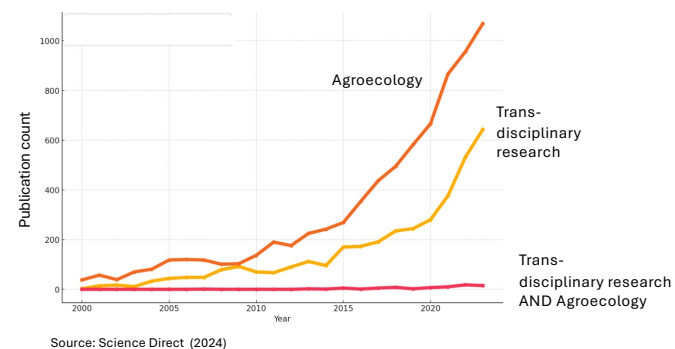
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Transition-Complexity Relation



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Trends in the literature (2000-2023)



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Transdisciplinary research must be assessed holistically.

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The essence of transdisciplinary research



Transdisciplinarity goes **beyond disciplinary confines**, aiming for **transformative results** with a focus on **real-world issues**, an adaptable **methodology** involving iterative and reflective processes tailored to specific contexts, questions, and research groups, and **fostering collaboration** among transdisciplinary and disciplinary researchers along with external stakeholders.

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1. Integration of knowledge

Assesses the degree to which various academic disciplines and knowledge systems are effectively integrated within agroecological research. Understand how different epistemological, theoretical and methodological approaches from distinct fields are combined to provide a more comprehensive understanding of the research problem and potential solutions.

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2. Collaboration

Focuses on the depth and breadth of collaboration among actors from different sectors during agroecology research. Assess how academics, practitioners, policymakers, and community members work together, their level of engagement, power and influence, and the quality of interactions in the research process.

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3. Problem-solving orientation

Assesses the extent to which research is oriented towards addressing real-world problems and developing practical, applicable solutions, i.e. going beyond confirmative research. Assesses the relevance of research to real-life issues and its potential to contribute to problem-solving in practical contexts rather than confirming the known.

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4. Innovation

Assesses the novelty of the research methods and approaches, especially those that go beyond the norms of traditional disciplines. Assess the degree research offers new perspectives, techniques, or methodologies to address the research questions in view of the solutions needed.

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5. Application and impact

Examines the tangible outcomes of agroecology research leading to impact on policy, practice, and societal change. Assess how research findings have been applied or have the potential to be applied in real-world settings and the extent to which the research has influenced or could influence the transformation of policy-making, food industry practices, or societal norms.

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Framework for reality check

Characteristics	Indicators	Rating*
1. Integration of knowledge	Diversity of knowledge contributions Depth of interdisciplinary engagement Cross-disciplinary methodologies used	High Average Low
2. Collaboration level	Actor diversity Quality of interactions/power balance Frequency/consistency of collaborative activities	Low High high
3. Problem-solving orientation	Relevance to real-world problems Practical solutions proposed Adaptability of research findings	Average Low high
4. Innovation	Novelty of research Pioneering approaches, goods and services New ways of redistributing value	High Low high
5. Application and impact	Transformative potential Policy influence Societal impact	Low High average

* Examples only

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New behaviours require change of interest, capacity, capability

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Interest

Personal values and beliefs, perceived benefits and risks, social/cultural influences all shape interest in transdisciplinary sciences, thus willingness to engage.



Capacity

Financial resources, access to information, and supportive institutions/networks are key to building the capacity for transdisciplinary sciences.



Capability

Skills, practical experience, and methodologies all influence the capabilities of individuals and teams to engage in transdisciplinary sciences.

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To conduct research differently at scale we need a **broad societal conversation** about transdisciplinary research.

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Thank you



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