


<p>Name of your approach to assess societal impact</p>	<p>Utilization TD co-generation of knowledge for transformation towards sustainability</p> <p>Aymara Llanque-Zonta (Leuphana University, Germany), Johanna Jacobi (USYS ETH Zürich): Utilization TD co-generation of knowledge for transformation towards sustainability</p>
<p>Approach description</p> <p>Please summarize your approach and its application context/options in a few sentences or bullet points.</p>	<p>Research focused on transformations for sustainability addresses complex problems that require comprehensive responses. The research was called <i>“Utilisation of Research knowledge for sustainable transformations, lessons from r4d programme”</i>, to identifying experiences of research projects in the Swiss Programme for Research on Global Issues for Development in Africa, Asia, and South America (r4d programme) regarding the utilization of research knowledge, and key factors facilitating or hindering this utilization towards sustainability transformations.</p> <p>Transdisciplinary research offers possibilities to increase contributions from science to the resolution of such problems. However, methodologies that prioritize the participation of multiple actors, also those that are often not heard in the transformation processes, for co-creating sustainability pathways remain a challenge.</p> <p>With our research, we intend to contribute to this debate by hypothesizing that assessing who uses research knowledge and for what purpose can be an indicator for understanding the impact of transdisciplinary research on development.</p>
<p>Concepts used in the approach</p> <p>Please insert definitions for key concepts and components.</p>	<p>Knowledge - We understand that knowledge can have very different forms and expressions and therefore we do not suggest any specific definition.</p> <p>Utilization of research knowledge – who uses research knowledge for what purpose in science, policy and practice may serve as an indication for impacts towards sustainability transformations</p> <p>Strong Transdisciplinarity - “strong” transdisciplinarity includes the epistemological challenge of embracing different realities, understandings, and perspectives, while “weak” transdisciplinarity is more aligned with the pre-existing views of a specific stakeholder group and/or does not challenge traditional methods and logic.</p> <p>Transformations - We define transformation as <i>“alterations of society’s systemic characteristics and encompassed social, cultural, technological, political, economic, and legal change”</i> (Driessen et al., 2013, cited in Brand, 2016:27), requiring an <i>“analysis of dominant trends that pursue (...) the obstacles of social-ecological transformation and the positive as well as failed experiences to overcome them”</i> (Brand, 2016:27). Thus, transformation is linked to the idea of empowering marginalized actors to participate in these transformations, as well as to the possibilities of redefining priorities, key topics, and goals (Tembo et al., 2021).</p>
<p>Key challenges</p> <p>Please write down what you are struggling with concerning the application of your approach.</p>	<p>There are different perspectives associated with transdisciplinarity, some of them prioritizing participatory relationships with non-academic actors at the local level, and others at the national or regional level. There is still no consensus on the value of co-elaborating knowledge at the local level as a more appropriate option to promote change; however, we see that when discussion processes do not reach local actors, they hardly perceive benefits.</p> <p>Stages and scales of use of knowledge:</p> <p>Our analysis shows that utilisation of research knowledge across-scales has 24.6% of answers, national level 23.3%, global 19.9%, regional 8.3%, sub national 9.5% and local 14.3%. The most-frequently achieved stages are <i>Cognition (16.7%)</i>, e.g. <i>“most of the recent activities are rather ‘conventional’</i></p>

	<p>research which is aimed to be eventually published in international journals, while also providing a basis for exchanges (discussions with/of stakeholders, policy reviews)". Transmission / communication (16.7%), and the least is empowerment: 4.2%.</p> <p>This composition varies according to the scales. On the national scale, the most frequent stage is <i>influence</i> (16.4%), the least mentioned is <i>social learning</i> (6.9%); on the global level, <i>Reference</i> (28.7%) is the most frequently mentioned, and empowerment is the least (3.7%). At the local level, <i>Social learning</i> is most frequent (24.5%) and <i>Reference</i> is lowest (2%). The data indicate that the projects are mostly relating to the national level, with classical mechanisms, such as transmission or influence. Moreover, the closer the projects are to the local level, the more they are building trust, social learning, and empowerment.</p> <p>Transdisciplinary approaches</p> <p>The understanding of transdisciplinarity (TD) is diverse: 57% considers that they apply a transdisciplinary approach, 14% do so partially, 14% does not apply TD and 2% does not know.</p> <p>The provided explanations indicate that TD is regarded as interdisciplinary by 61% of qualitative answers which explain TD as a collaboration between academic disciplines – e.g. natural and social sciences - or a combination of methods (e.g. <i>"Together in teams that bring in insights from political economy, human rights, anthropology and feminist social science"</i>; and <i>"It is understood as the combination of scientists and research methods from different disciplines"</i>.</p> <p>A different understanding of TD refers to the involvement of non-academic actors with 16% of qualitative responses, e.g. <i>"Involvement and engagement beyond academic partners, with local stakeholders, from a very early project stage on"</i> and <i>"The project works with academic and non-academic partners in order to closely work towards practical solutions"</i>. In 6% of the cases, TD approaches recognize the participation of non-academic actors in decision-making, e.g. <i>"co-design of the project from the beginning with different stakeholders"</i>.</p>
<p>Visualization and narratives</p> <p>Please add short information on whether and how you use visualization, narratives or other boundary objects in your approach.</p>	<p>We use visualization, with infographics, also video narratives, and qualitative information mainly including descriptions of the actors involved in research processes.</p> <p>The infographics consist of general information about the process, we have integrated images with key ideas that we wish to transmit, aimed at scientists and people linked to organizations funding research in transformations, sustainability and transdisciplinarity.</p> <p>This is one example:</p>  <p>The infographic 'Stages of Utilization of Research Knowledge' is a circular diagram with ten stages, each represented by an icon and a text box:</p> <ul style="list-style-type: none"> Social Learning: A cognitive process that takes place in a social context and occurs through observation, instruction, exchange or teaching. Reference: When third parties refer to and cite research knowledge and its sources. Empowerment: When new groups gain power through co-produced knowledge. Influence: When research knowledge influences choices and decisions of others. Building trust: When using knowledge from a project increases the credibility of partners. Application / Replication: When the research knowledge is applied and gives rise to new joint knowledge production processes. Redefinition: When knowledge from non-academic actors helps reshaping key issues. Cognition: When actors access and understand research knowledge. Transmission / communication: An exchange of research knowledge between academic and non-academic actors. Social Learning: (repeated at the top of the cycle)

<p>Strengths and weaknesses From your own perspective: What would you consider as strengths and weakness of your approach?</p>	<p>strength: Global, medium- and long-term research data. perspective of different stakeholders qualitative and quantitative information validation process</p> <p>weakness: results primarily from scientists few concrete examples in the field needs time and presence, courage, commitment, skills...</p>
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