



Three ways of understanding social transformations to sustainability

The enormity, complexity and urgency of the global targets enshrined in the 2030 Agenda and the Sustainable Development Goals (SDGs) are widely acknowledged. However, even with calls for transformations to sustainability resounding around the globe, it is often not clear what should be transformed, by and for whom, and how. There are considerable gaps in our understanding of how knowledge about transformation can inform intentional change towards environmentally sustainable and socially just goals.

The scientific literature points to three main ways of conceptualizing and approaching research and action towards transformations to sustainability, which can be described as: (1) structural, (2) systemic and (3) enabling. Research on and efforts to achieve transformations to sustainability can draw on the strengths of these contrasting but complementary approaches.

Understanding transformations: structural, systemic and enabling approaches

It is broadly accepted that there are no short-term technological solutions to the climate change challenge, and that large-scale social change will be needed to contain and adapt to the disruptions of global warming. Analysis of past and current

literature on ways in which humans could engage in transformations to sustainability reveals three broad areas of emphasis:

- The need for fundamental change in the governance and organization of production and consumption
- The possibility of accelerating social, technical and ecological transitions by means of technological innovations and progressive policies
- The importance of change from below through networks of civic movements and grassroots activities.

Understanding 'transformations'

This Knowledge Brief is based on a peer-reviewed article¹ that provides an overview of different conceptions of transformations and their respective strengths and weaknesses. While essentially comprising 'fundamental changes in structural, functional, relational, and cognitive aspects of socio-technical-ecological systems that lead to new patterns of interactions and outcomes',² transformations can also be described in the context of system boundaries and dynamics. The processes generating transformations are also debated widely: can they arise from planned interventions by policymakers, are they caused by political and economic forces and social movements, or must they be triggered by crises of some kind? The paper on which this brief is based tries to make sense of how different ways of understanding transformations can inform action to achieve them.

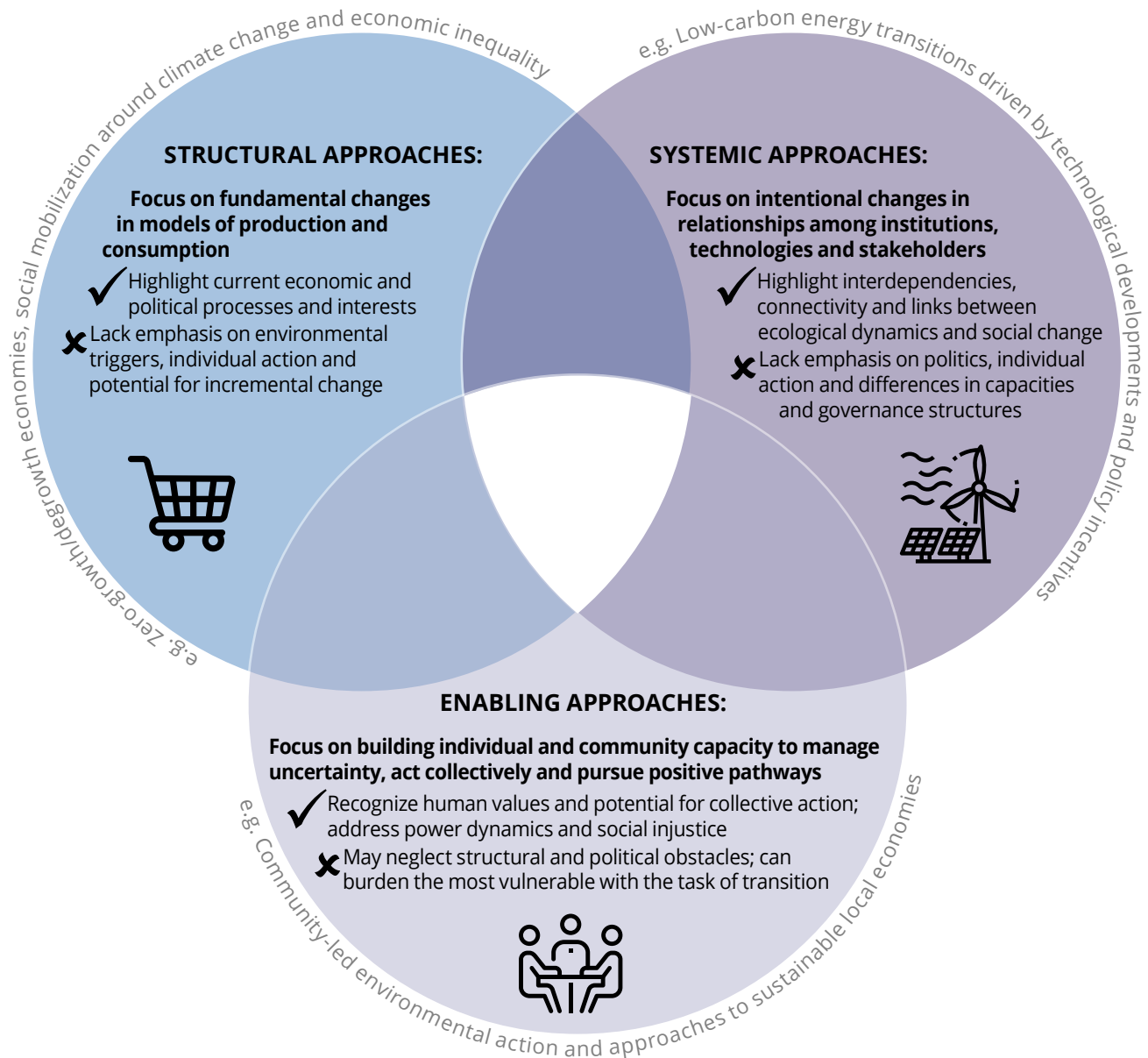
The different emphases are broadly aligned with three main understandings of and perspectives on transformations, which we call structural, systemic and enabling (see figure), and which reflect contrasting political traditions and assumptions about social processes.

Combining these perspectives

Different understandings of how transformations come about can affect what actions are taken, but the three approaches described here are not mutually exclusive; rather, they can be complementary and reinforcing. Change can be

triggered by large-scale ideological shifts, but it can also be more dispersed and grassroots in nature. To achieve the ambitions of the 2030 Agenda, the necessary structural and systemic changes will also demand enabling and emancipatory change for people.

For example, transformations to low-carbon energy systems will be essential to tackling climate change. Meeting the SDGs will require deep structural shifts away from fossil fuels, with extensive changes in global markets and models of production and consumption. Innovations (e.g. wind and solar energy) can emerge in 'niche' situations,³ from which more resilient systems can develop. A supportive environment relates to the effects of changing market forces (e.g. increased availability and



reduced costs of alternative energy sources, and political commitment to promoting renewable energy). Enabling approaches also support new social, political and cultural movements and alliances driven by people's aspirations for greater sustainability — for example, community renewables and energy democracy.

Practical principles for research and action towards sustainability

Socially just and equitable transformations depend on an open and democratic environment that allows critique and social mobilization. However, since a supportive environment is not always a given, scientists and policy actors need a set of principles to help realize the potential complementarities between the three approaches.

First, it is crucial to **appreciate the diversity of sources and types of knowledge** that are relevant to intentional processes of transformation. This means embracing the concept of transdisciplinarity, promoting equitable processes of collaboration and exchange, and co-constructing new, broad-based knowledge.

Second, there is a need to **recognize the multiplicity of potential pathways** to the same goals. Different ideas and values within sustainability imply multiple institutional and infrastructural transformations, and there is never a single viable or best path. Multi-stakeholder engagement and participatory decision-making can help navigate potential routes and their implications.

The third principle builds on the first two and relates to **taking full account of the politics of transformations**. Engaging with diverse contexts and perspectives requires negotiation among competing interests and levels of power across multiple actors, political institutions, economic systems and technical infrastructures. Successful outcomes rely on promoting a supportive environment that enhances people's capacities and creates space for all voices, thereby creating opportunities for new synergies to emerge.



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Key messages

- Three main approaches to understanding and taking action towards achieving sustainable and inclusive transformations may be defined as structural, systemic and enabling. These are complementary and reinforcing, and all three are important.
- Realizing potential complementarities between the approaches depends on taking full account of three supporting principles: appreciating the diversity of sources and types of relevant knowledge, ideas and values in relation to transformations to sustainability; recognizing that there are potentially multiple viable and legitimate pathways towards transformation; and taking into account the politics and power relations at play in processes of transformation.
- Consideration of both the complementary approaches and the supporting principles can help stimulate debate and create openings for new social and technical innovations, both of which are essential for achieving broad ambitions of sustainability.

Endnotes

- 1 Scoones, I. *et al.* (2020). 'Transformations to sustainability: combining structural, systemic and enabling approaches.' *Current Opinion in Environmental Sustainability* 42: 65–75.
- 2 Patterson, J. *et al.* (2017). 'Exploring the governance and politics of transformations towards sustainability.' *Environmental Innovation and Societal Transitions* 24: 1–16.
- 3 International Science Council (2019). 'Frameworks for understanding transformations to sustainability – the 'Multi-Level Perspective' in socio-technical transitions research.' Transformations to Sustainability, Knowledge Brief 3. https://transformationstosustainability.org/assets/uploads/2019/10/GIP02228_ISC_brief_Pr3Final_WEB.pdf

This Knowledge Brief is one of a series based on recent peer-reviewed research on social transformations to sustainability. For more information and citation details, the article on which it is based is available at <https://doi.org/10.1016/j.cosust.2019.12.004>. The Knowledge Brief has been prepared by the International Science Council (ISC) Transformations to Sustainability (T2S) programme secretariat in collaboration with Ian Scoones, Andrew Stirling and Adrian Ely. The views it expresses do not necessarily represent those of the International Science Council, nor of the programme's funder, the Swedish International Development Cooperation Agency (Sida). For any questions regarding this document, please contact Andrew Stirling, a.c.stirling@sussex.ac.uk.

The T2S programme understands transformation as a profound and complex socio-ecological process with both short- and long-term implications for the sustainability of natural and social systems. Find the full series of Knowledge Briefs at: <https://transformationstosustainability.org/document-type/briefs/>.



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