Is this a place for transformative change?¹

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We need a complete change in our organization, designed to bring big improvements!

Biodiversity loss and climate change accelerate rather than slow down, in spite of decades of concerted efforts from policy and research. It is therefore no wonder that the Convention on Biological Diversity (CBD) and the broader scientific and policy community involved, call for something completely different: transformative change (IPBES Global Assessment). Clearly, business-as-usual economic development patterns lead to the destruction of our living environment and increasingly undermine the basis for life on earth. This in itself is not a new message, it has led to Rio '92 and it is the reason for the Climate and Biodiversity Conventions. Over the past decades, scientific evidence has shown us that economic development has had a significant impact on the natural environment. Thanks to the hard work of the CBD, we have reached scientific consensus. We are aware of looming ecological regime shifts (Biggs et al., 2012), with risks of tipping cascades in essential biomes (Steffen et al., 2018). However, the continuation of a rapid declining nature, with patterns comparable to a mass extinction (Kolbert, 2014) also raises fundamental questions about its functioning.

Revisiting the Convention on Biological Diversity

The CBD, its associated Protocols and conservation approaches, have been generally successful in generating knowledge and action, committing to conserve and protect ecosystems across the globe. It has done so by developing complex institutional processes (Conference of the Parties, Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), Subsidiary Body on Implementation (SBI), national biodiversity and actins plans (NBSAPs), the Global Environment Facility (GEF)...), with a strong discourse around nature conservation and protection, creating a global network of environmental groups, organizations and representative bodies. This 'biodiversity regime' has helped to stimulate environmental awareness, and further national policies countering environmental degradation and resource depletion. However, despite the positive effects of these efforts and pockets of successful practices in conserving and restoring ecosystems, the state of global biodiversity has continued to deteriorate across the globe. Most positive effects of the CBD and related efforts, seem to have been offset by growing consumption, leading to land system change, ocean acidification and increasing nitrogen fixation (among others) (W. Steffen et al., 2015). In turn, these issues have been identified, analyzed and institutionally addressed though monitoring frameworks leading to higher ambitions and targets based on rational problem-solving through formalized processes.

Call for societal transformation reconnecting to the biosphere

In this context, the calls for transformative change from within the CBD seems a logical next step, moving ambitions to yet another level as the Aichi targets and "at least reducing the rate of biodiversity loss by 50% in 2020" is not achieved. From this point of view, the current ambition: "to bend the curve on biodiversity loss by 2030" seems not realistic, certainly, considering that the past decades did not result in significant improvements or structural reductions. If we want to keep the ambition "to bend the curve" or to reduce the rate significantly, then the first and foremost question is: "What would

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lead to such a revolutionary change?" Such large systems change requires new paradigms for action (Waddell et al., 2015) and through the planetary crisis, we must admit that new ideas of a living planet gain more traction. In the Anthropocene or the new climatic regime, nature and culture are two parts of the same concept (Latour, 2017). We are Earthbound and just like other living species, we need to cope, and live in harmony with the reactions of these natural organisms as they are constantly reshaping their environment, creating their own conditions for survival. Mutually, as humans, we also have to create these conditions. Yet, we are among the first humans to know that we are undermining the Earth's support system. These alternative views of a living planet and the notion of agency contribute to a different narrative about the human-nature relationship (Segall, 2012) and help us to take action. It is clear; we must lay the foundations for systemic interventions leading to transformative change. We need to reconnect society with nature and we need to reflect the functioning of the CBD in order to deliberately support and bring about transformative change.

Exploring transformation taking a transition perspective

The current message of transformative change has been emerging for some time now. Over the past year, the CBD community invested in a series of (Bogis-Bossey) workshops, seminars and sessions. Drawing from research of global networks in sustainability transitions research, transformative change can be understood as structural, non-linear change in complex societal systems. Historical cases show us that transitions happen over several decades, they are difficult to manage, but can be coordinated or navigated by foresight and anticipation, with principles in transition governance. We can observe specific patterns and mechanisms that over time lead to structural transformative changes in so-called societal regimes: dominant cultures (values, discourse, paradigms), structures (institutions, infrastructures, regulations, economic conditions) and practices (behavior and routines). Together, they provide stability as well as inertia to sectors, regions or complex organizations. Examples of such societal regimes are centralized, fossil based energy regimes, industrial monoculture global agro-food production regimes and linear extractive and resources intensive production regimes. But also, problem-based, rational and institutional biodiversity conservation regimes.

Such dominant regimes develop over time and include production/consumption cultures, structures and practices. Sustainability transition research shows that societal regimes periodically move through periods of transformative change with interacting patterns of building-up and breaking-down. Generally, there are three reinforcing patterns:

- increasing societal pressures for change, with a need to prepare for the change;
- path-dependencies, increasing internal tensions and crises within dominant regimes, with the need for navigating the transition, and;
- maturing or competing alternatives (technologies, lifestyles, values, business models), with a need to institutionalize the alternative system, leaving room for adaptation.

A core insight from transitions research is that a path-dependent processes of optimization and improvement from within existing regimes decrease resilience, while simultaneously actors within such a context lock themselves in through continuing investments. This exact pattern of increasing societal pressures for transformative change combined with the inability to escape lock-ins and path-dependencies, empower other actors to pursue radical alternatives, leading to the destabilization and unpredictability of shock-wise, structural changes (see figure 1) (Loorbach, Frantzeskaki, & Avelino, 2017; Moore et al., 2014).

This concept of transitions is applicable to the situation of the CBD. The current debates around setting goals, choosing relevant indicators, the role of the scientific community and how to achieve deep

transformative impact, are all signs of destabilization (see figure 1). The dominant discourse concerning protection, conservation, analyzing ecological problems, biodiversity loss and incremental institutional progress are fundamentally questioned: more of the same will not solve the enormous challenge we are facing. However, these processes are highly institutionalized and the alternatives are not yet identified, beyond broadening the community to involve business (mainstreaming biodiversity), connecting social sciences into the IPBES process and changing the narrative from biodiversity to nature or from protection to transformation. The CBD regime is based on identifying problems and pushing for these problems to become part of political agendas, primarily on a global scale (seeking to achieve similar results as the Climate Change convention).



Figure 1: Transition dynamics of built-up and break-down

The emergence of transitions

The transition perspective is also applicable to the societal sectors that have a devastating effect on the integrity of the biosphere, leading to biodiversity loss, climate change and global injustice. Across the world, momentum for (sustainability) transitions is building in areas such as energy, forestry, agrofood, mobility, construction and water management. In local communities, cities, regions and countries all sorts of alternatives are starting to diffuse at an accelerating speed: from sustainable technologies, lifestyles, business models and communities to new types of governance and research. The emergence of such alternatives is driven by entrepreneurs, who have been experimenting for a long time, exploring preferable alternative futures. These entrepreneurs are empowered by growing societal concerns, political pressures and global trends in technology, communication and economic development. But they are also interacting in very context-specific ways with incumbent regimes and powerful actors seeking to sustain the status-quo.

The potential and positive contributions to achieving the desired "transformative change" and "bending the curve" of such emerging sustainability transitions is obvious: they could develop from niches or seeds into regimes or local "biodiversity-positive" economies. However, this preferable future will be different depending on local or regional context, each with their own geography conditions, resources, existing regimes and available knowledge and capacities. Most of all: achieving biodiversity positive economies will be an experimental, and explorative process that cannot be designed nor planned centrally. (Global) policy and institutions, including the CBD, can create an enabling environment by agreeing upon a generic direction and coordinate the breakdown and

Loorbach D, et al. 2017. Annu. Rev. Environ. Resour. 42:599–626

phasing out undesirable regimes. It should be clear that it is not possible to implement or agree on the design of future pathways for sustainability transitions, let alone "implement" and having "command and control" over these pathways. Life is dynamic, societies become increasingly complex and the future is constantly emerging and is therefore unpredictable. Actually, the future does not exist, the only way we can deal with it is through the present, in terms of futures consciousness and anticipation, which are capacities individuals and organizations can learn (Ahvenharju, Minkinnen & Lalot, 2018, Miller, 2018). Transition governance (see below) deals with complexity and unpredictability, but it is not a fixed roadmap, it is rather based on generic principles and depends on the engagement of many different stakeholders, the local context and preferable future pathways must be co-created.

Finally, there is a growing awareness of and commitment to pursuing sustainability transitions. Together with all sorts of biodiversity positive alternatives, the challenge is to connect to those networks, people, ideas, and solutions. The challenge is to work towards a global sustainability-oriented movement with a truly transformative impact at the local and regional scales. The CBD and other actors operating within the biodiversity regime, have the opportunity and the power to connect this growing movement and deliberately accelerate biodiversity positive practices, bridging its networks, knowledge and capacities to make biodiversity and nature a prime concern. The question is:

"Can the CBD engage more directly with sustainability transitions emerging sectors such as fisheries, forestry, energy, food, mobility, health, fabric or clothing industry? Can the CBD become a space for transformative change?"

Transformative spaces and transition governance

In order to deliberately support transformative change, we create transformative spaces. In such an enabling environment people from across the system, with different perspectives and knowledge collaborate and experiment with new ideas and practices (Pereira, Karpouzoglou, Frantzeskaki, & Olsson, 2018). Through this interdisciplinary setup, we aim to link existing knowledge with action for effective responses to persistent problems (Cornell et al, 2013). The authenticity and the physical environment of a transformative space plays an important role as people are invited to observe their mental models and to get in touch with their inner senses. From there, individual mental models and values become visible and this creates room for a collective problem definition. This process contains several phases leading to new narratives and discourses in order to vision alternative future pathways, guiding sustainability transitions. Transition specialists and civil servants lead this process, initially as activator and later as facilitator. In transition governance, we refer to transition arena, which can be considered a transformative space, creating an enabling environment for participation, and dialogue with the goal of enabling transformative change (Wittmayer and Schäpke 2014, Fazey et al. 2018).

Transition governance is a well-develop theoretical framework and an effective practical method to facilitate emerging sustainability transformations. It draws upon analytical tools to map transformative change, identifies transformative change agents and developed process tools to empower new positive narratives, practices and networks to accelerate and guide sustainability transitions. There are many different ways in which this approach is applied, but in general it starts with collaborations between entrepreneurial policy-makers, business actors, radical pioneers and researchers that encounter persistent problems and seek to advance desired sustainability transitions. Rather than to identify solutions, formulate policy-plans and work on implementation, the core logic of these approaches is to first understand the root causes that created the systems conditions in the first place. What follows is the identification of diversified of alternatives pursued by different actors and then

empower, strengthen, scale, diffuse and ultimately help institutionalize such changes (Wittmayer & Loorbach, 2016).

So far, sustainability transitions are developing more bottom-up and in places with the right conditions in terms of intellectual capacity, resources and existing alternative lifestyles, business models, technologies etcetera. While sustainability transitions need to be context specific and processes of learning-by-doing, we gain a better understanding of the generic principles, tools and elements. Through the development of global networks of local practices and experiences, a body of knowledge and experience is emerging. This provides the foundation for global transformative change through local sustainability transitions. In this context, we need to explore how the CBD could reflect and transform itself in order to take a critical role in supporting the acceleration, empowering and navigating preferable futures for biodiversity.

Proposition

The idea we propose for this, is to develop a complementary process to the current structures of the CBD. We propose a platform through which local sustainability transitions can be connected translocally. Selected niches are deliberately supported by providing knowledge, finance, tools and inspirational examples. Their practices are accelerated by helping them to provide legitimacy and critical mass. Mutually, this platform provides examples and visions of preferable futures, deep knowledge about local challenges and a direct connection to the reality and everyday practices of sustainability transitions and transformative change. This platform could become the portal to connect global scientific communities in resilience and sustainability transitions to local sustainability processes. The platform aims to support matchmaking of local policy, communities and businesses to competent researchers, funding and global institutions in order to bring about sustainability transitions in biodiversity. Such a platform has the potential to create a global-to-local database and network for sustainable transformations and thereby it becomes a pivotal part of achieving the desired transformative change itself.

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