

*Editorial*

## Strategies for Sustainability: Institutional and Organisational Challenges

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### 1. The General Context: Challenges in Operationalizing Sustainable Development in Institutional (Organizational) Settings

Sustainable Development (SD) is a global role model that claims to function as a general orientation for shaping societal processes, *i.e.*, local, regional, national and international development. This is in line with the Brundtland and justice-oriented understanding of the term. It is understood as a role model and sometimes also interpreted as a regulative ideal. However, it does not state how exactly “sustainable” societies will or should look. It does not give us a step-by-step pattern to follow, but something like a frame of what ought to be done in order to transform today’s societies, including their economies. Nevertheless, and even despite its often bemoaned abstractedness, it is far from being a “content free” term as well as being so broad as to invite an “anything goes” mentality. First, SD is a reaction to what could be called a general development dilemma: Our actions that are intended to improve human living

conditions today (or even to simply maintain any achieved level) could lead to future situations where the effects of these actions substantially undermine any achieved progress. Traditional economic growth, for example, can and does contribute to better living conditions today and in the near future, but at the same time, it can undermine the potential for development on a longer run, especially given the way economic growth currently overuses natural, human and social resources and exceeds natural boundaries and transgresses load factors of natural sinks. Secondly, there are clearly identifiable characteristics that distinguish SD from other development conceptions [1]. Generally speaking, SD is about human development within the context of scarce natural and societal resources and fragility of natural and social systems. It (i) contains global equity issues and accordingly is a normative concept, including inter- and intra-generational aspects; (ii) it's about shaping the future; taking into account inherent uncertainties that come with the territory of dealing with future states of affairs; (iii) it takes a global, and therewith universal, perspective; it is for all human beings; (iv) it considers possible risks that come from overusing natural resources and natural sinks; (v) it also accounts for possible risks related to scarcity and fragility of social resources and of social systems; SD is oriented towards societal transformation; and (vi) SD is strongly geared towards steering collective actions, addressing especially collective actors, *i.e.*, actors with strategic orientations in organizations.

Although we can clearly reconstruct general elements of SD that provide a framework, scholars working in the field of sustainability science normally agree that the SD role model does not directly steer human activities and decisions. If we commit ourselves to sustainability, it remains far from clear what could actually be deduced from the role model for a specific situation, such as concrete goals, rules for trade-offs and means, for example, in regards to decisions on infrastructure development in a regional context. Not surprisingly, the literature is full of attempts to clarify the concept by suggesting definitions to the effect that the inherent ambiguities of the concept should be overcome and that somehow with this, it would be possible to deductively identify the most rational and best “solutions”. Whether or not best solutions are available in a complex, interlinked and dynamic world with a high degree of uncertainty, or whether ambiguities could be eliminated from such a highly abstract idea (especially considering uncertainty and dynamics of natural and social systems) are both rather doubtful, but a question beyond the scope of this editorial. Albeit, what matters is that there is obviously a gap between the general content of the idea of SD and the operationalization of SD for concrete actions. Whereas the idea of SD as a role model is clearly positioned on the global general level, insofar as it is universal and applies to all human beings, all human actions, in actuality, take place in a specific sectorial environment: There are no organized actors on the global and universal level and there are, therefore, no actors representing SD as such. Hence, there is an inherent tension between the universal idea and the practical settings an actor finds herself in. Actors need to “translate” SD into their contexts; they need to find ways to contextualize SD. By not addressing this tension and failing to analyze it could mean that building bridges may indeed contribute to maintaining a substantial societal barrier against progress in SD, due to actors potentially lacking appropriate and well-informed instruments for the integration of SD into their daily practice.

Additionally, decision and strategy makers on different societal levels normally act within institutionalized settings—and this matters from an SD perspective, considering that these settings are constructed, *e.g.*, by collective value schemes, belief systems, procedural rules, laws and incentives, and expectations on the organization in question. Moreover, these settings differ across different domains,

such as business sectors, non-profit or state sectors. And it goes without saying that individuals with their individual value schemes and routines have an important role in how individuals act and the perception of how one ought to act within given institutionalized settings. Accordingly, and based on established findings from research on institutions, organizations and their cultures [2] there are very good reasons for assuming that there will be no blueprint regarding the precise concrete meaning of SD in contextualized goals and means, and furthermore, that there will be no blueprint for different actors in different sectors to integrate SD into their institutional settings. Hence, with good reason we expect that SD will be the outcome of many different integrations of SD in different societal environments. Notwithstanding the many possible ways of operationalizing SD, we do not accept that there are no generalizable features at all within these processes, especially regarding strategy building. We thus far can only say that we simply do not know enough. The scientific understanding of implementing SD in strategic orientations and operational practices of daily life is still pretty underdeveloped. With these considerations, the overall question of this special issue is: How do actors include “sustainability” within their institutions and organizations?

## **2. The Contributions to a Better Understanding of Issues Related to Operationalizing SD in Different Organization Settings**

The foci of the included contributions are not on presenting and discussing specific strategies, even though most contributions present findings based on case studies. The scope of the present papers ranges from business cases over NPO-settings to the field of regions or universities. The topics addressed by the papers include and are related to the challenges sketched above, such as organizational issues, frame-conditions for actions, pre-conditions for successful implementations (*i.e.*, cognitive aspects), and monitoring (especially goal attainment). More specifically, the reader can expect the following contributions:

Michelle L. M. Graymore’s paper [3] on *Sustainability Reporting: an approach to get the right mix of theory and practicality for local actors* is based on a case study in South West Victoria, Australia. It addresses the tension between the general level of SD and the need for its contextualization. The main argument is that a collaborative process for elaborating a sustainability reporting tool, including all essentially involved actors (representatives), proved to overcome at least some of the barriers for operationalizing SD in a regional and institutionalized context. Such a reporting should thereby display two features, namely (i) having the function of assessing attainment of commonly agreed goals and (ii) being informed by a sound theoretical basis regarding SD.

Kristin Nicolaus’ and Jens Jetzkowitz’ contribution [4] on *How Does Paying for Ecosystem Services Contribute to Sustainable Development? Evidence from Case Study Research in Germany and the UK* addresses a currently very popular tool for operationalizing SD, “Payments for ecosystem services” (PES), against the backdrop of a broader and not only environmentally focused understanding of sustainability but rather a justice-oriented understanding of sustainability. Herein, they draw on different cases in Germany and the UK that have used participatory and deliberative structures for developing the payment schemes. The paper argues that PES cannot be looked upon as a satisfactory operationalization tool for SD because it strongly underrepresents social issues, especially social justice issues. However,

it also argues that the related participatory processes can provide formal legitimacy and a formal setting for taking aspects of justice into account.

The third paper on *Involving Corporate Functions: Who contributes to Sustainable Development*, by Stephan Schaltegger, Dörli Harms, Sarah Elena Windolph, and Jacob Hörisch [5], engages with a broadly shared assumption in both SD and Corporate SD literature alike, namely, that SD is a cross-functional (or cross-sectorial) endeavor that asks for participation of all parts of a sector in order for it to work successfully. However, the paper identifies a research gap regarding an evidence-based understanding of this claim. Distinguishing between a cognitive-affective and a behavioral dimension of “involvement”, the paper starts with the basis of a sample of large German companies and demonstrates (a) quite different involvements of corporate functions in sustainability management and (b) that cognitive-affective components significantly influence the behavioral involvement.

Stephan Hack and Christian Berg’s paper [6] on *The Potential of IT for Corporate Sustainability* addresses new requirements for managing an enterprise’s resources in order to enable it for adapting to SD. They argue that the related resource planning has to take all types of resources into account. Not only financial but also environmental and social resources along the value chain are of importance, according to the argument, and this faces much complexity in turn. Against this backdrop and referring to ongoing debates on “green through IT”, the paper explores options and best-practice examples of IT-applications to serve the identified requirements, especially focusing on second-order effects, such as process improvements or substitution effects.

Whereas there is a broad body of literature on corporate sustainability and many related on-going activities, there is little research and little activity in the field of sustainability management of Nonprofit Organizations (NPOs). Claus-Heinrich Daub, Yvonne M. Scherrer and Arie H. Verkuil [7] enter this domain with their paper on *Exploring Reasons for the Reserve against Sustainable Management within Nonprofit Organizations*. Using the example of church and pastoral institutions in Germany, and specifically the way these organizations consider ecological and social aspects as relevant in their management systems, the paper identifies a gap between willingness to contribute and having appropriate tools to do so. It furthermore explores conceptual options for a systematic approach to a sustainable NPO management that could fill this gap.

The following three papers each provide different contributions to different aspects within the specific topic of sustainable universities and higher education, ranging from a broad perspective on universities as institutions, a general methodological tool in teaching sustainability science and then on to the more specific topic of integrating SD into an applied science-oriented Bachelor curriculum in environmental sciences.

The paper by Michael von Hauff and Thuan Nguyen [8] on *Universities as Potential Actors for Sustainable Development* addresses the potential of universities to act as a driving force for sustainability-oriented societal transitions. To elucidate this potential, the paper argues that universities have to take up sustainability in all the essential functions of a university, *i.e.*, in teaching, research as well as on the operational level, and this amounts to implementing sustainability in universities’ strategic orientation. The paper presents a framework for structuring and analyzing such a strategic orientation and demonstrates the current (and stated to be unsatisfactory) state of sustainability implementation within German universities.

Richard Beecroft's and Jan C. Schmidt's paper [9] on *Method-based Higher Education in Sustainability: The Potential of the Scenario Method* aims at didactically reconstructing the widely used scenario method within teaching contexts. This is to enable students in using the scenario method in a reflective way. They propose to look upon education and sustainability as having common ground, namely a future orientation as well as normativity as part of its rationality, and suggest that the scenario technique is able to display this common ground, however, by distinguishing amongst three different (ideal) types (functions) of scenario studies: projective, explorative, and teleological.

The last university-oriented paper on *Supporting the Integration of Sustainability into Higher Education Curricula—a Case Study from Switzerland*, by Sandra Wilhelm Hamiti and Hans Wydler [10], presents experiences from a bottom-up process for integrating SD in existing Bachelor curricula on “Environmental Engineering” at a University of Applied Science. They state that developing and using a sustainability assessment tool in form of a spider diagram can be a core-tool within both a workshop process and in teacher training sessions. They argue that this tool can overcome important barriers and pave the way for relating the existing modules within the school to the broader perspective on SD.

Finally, Eddie N. Laboy-Nieves [11] addresses in his paper on *Energy Recovery from Scrap Tires: a Sustainable Option for Small Islands like Puerto Rico* the relevance of legal, technical, and especially economic frame-conditions for sustainability-oriented action. Given the high dependence on fossil fuels for power generation and the resulting high prices for electricity, the paper explores the potential and viability of using scrap tires for power generation within the context of a small island like Puerto Rico. With the identified potential for co-generation of power and its inclusion in thermal processes against the backdrop of exporting almost 5 million scrap tires each year, the paper argues for viewing scrap tires as an endemic energy source, especially for islands, and for appropriate socio-economic frameworks to validate this resource.

### 3. Outlook

The current mainstream sustainability science is still strongly focusing its analyses on outcomes in terms of CO<sub>2</sub>-emission reduction, reduction of biodiversity loss, soil quality and greening the economy. Although SD is certainly about striving towards such aims—it is after all about transforming currently existing societies towards more equitable ones by radically reducing resource consumption and emissions—sustainability science as a whole still does not put enough emphasis on the institutional settings that enable or hinder organizations in their pursuit of contributing to SD, be they business, state, or non-governmental. These settings provide the space within which actors and organizations can act strategically so that they can contribute to the different material objectives characterizing SD. The collection of papers presented here contributes some perspectives on and findings in that field, and even so, there remains no doubt that many more efforts need to be made.

### Declaration

This special edition of “Sustainability” represents a paper collection from the 3rd International Sustainability Conference 2012 in Basel (<http://www.sustainabilityconference.ch/>). The papers were initially submitted to the conference and underwent a standard double blind peer-review process.

## Conflicts of Interest

The authors declare no conflict of interest.

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