Governing towards sustainability:
the potential of different modes of governance

Panel: Governance, Policy Networks and Coalitions, T12P02 - The AIM Of Governance In
The 21st Century: Actors, Instrumentation And Modes Of Governance

Philipp Lange

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Philipp Lange
University of Basel, Department of Social Sciences, Sustainability Research.
Philipp.Lange@unibas.ch
1 Introduction

Modern societies have become increasingly complex both in terms of existing problems and in terms of dealing with them. Facing ill-defined persistent problems of unsustainability, the notion of sustainable development (SD), which nowadays represents a broadly accepted role model, calls for deep societal transformation processes. Within scholarly and political debates there is a broad consensus that governance is pivotal for this endeavor (cf. e.g. Adger & Jordan, 2009; Meadowcroft et al. 2012; European Commission, 2009). It is vividly argued that SD and governance have to go hand in hand. Some authors even consider the lack of sustainability that characterizes existing development patterns as mainly a crisis of governance (e.g. Van Zeijl-Rozema et al., 2008; Farrell et al., 2005). ‘Governance’ has emerged as a concept in political science, sustainability science and other fields as a response to the growing awareness that over the past decades governing has increasingly become a shared responsibility of state, market and civil society (e.g. Kooiman, 2003; Pierre & Peters, 2000; Rhodes, 1997; Stoker, 1998). Resulting from these changes in governing, a variety of co-existing modes of governance have emerged within modern societies. The field of sustainability governance accordingly encompasses the joint promotion of transformation processes by government, market and civil society actors. These processes take place on various levels (local to international), affect different policy fields (e.g. the energy or agricultural sector) and refer to multiple temporal scales (cf. e.g. Kemp et al., 2005; Baker, 2009). However, it remains an open question on how to govern in such a way that sustainability is best fostered, or as Lafferty (2004, p. 2) puts it: ‘what works where, when and how for the promotion of sustainable development?’

One of the most important questions in the search for suitable governance for SD is which governance mode (or mix of modes) is best suited and therefore ought to be advocated. Within sustainability governance literature, there is a strong and highly influential normative claim, that the promotion of SD requires so-called ‘new’ modes of governance (see e.g. Bäckstrand et al., 2010; Steurer, 2010; Newig et al., 2008). This enthusiasm for ‘new’ modes can also be found in the general governance literature (cf. e.g. Ramesh et al. 2015). Such modes can be described as non-hierarchical governing forms that exceed ‘traditional’ government control, ranging from public-private partnerships to self-regulation. Examples are participative, collaborative and network forms. However, thus far there is lack of evidence supporting the claim that ‘new’ modes are generally superior when it comes to governing towards SD (cf. e.g. Griffin 2010, Koontz & Thomas, 2006).

This paper strives for contributing to fill the knowledge gap on the relationship between governance modes and sustainability by providing the theoretical basis for empirical research. In order to explore this relationship, the complex sequence of governance and its results has to be addressed. Since actual contributions to sustainability on the ground are hardly measurable (when the notion is taken seriously in its broad societal meaning), the paper focuses on the potential of governance modes to contribute to SD.
As a basis for scrutinizing the sustainability potential of governance modes, four theoretical requirements have to be fulfilled. First of all, a governance conceptualization must be developed that covers the inherent complexity and inner functioning of real-world governance arrangements. Second, one needs a frame for meaningfully distinguishing among different modes of governance. Third, a way for grasping the societal changes induced by governance - here called governance impacts - that occur in the meantime of governance and its end results on the ground (here called outcomes) must be found. Finally, for evaluating these impacts of governance in terms of sustainability, one is is need for a normative frame with sound assessment criteria. The structure of this paper follows these four theoretical requirements.

2 Conceptualizing governance

Against the background of a missing conceptual clarity on ‘governance’, the first theoretical desideratum is a sound conceptualization of governance. This shall allow reconstructing the logic of governance, i.e. to explore how governing works in different real-world arrangements and, in so doing, reveal their inner functioning. This step is needed as a prerequisite to fully comprehend the sequence of governance and its results in empirical case study research. It provides indications for the possible ways through which governance can induce societal change. Yet, conceptualizing governance is not an easy task since it involves considering a complex set of interacting facets. In what follows, I will thus first provide a foundation. Based on this, I develop the conceptualization.

2.1 A foundation

The increasing use of the governance concept has first and foremost been a response to the growing awareness that governments are no longer the exclusive relevant entities when it comes to the management of societal issues. This is illustrated by the prominent storyline ‘from government to governance’ (cf. e.g. Bell & Hindmoor, 2009; Arts, 2014). However, this storyline remains on an abstract level. Changes in the way society is governed are thus frequently proclaimed in a very broad manner. While there is consensus that by means of ‘governance’ one aims at including governing beyond ‘conventional’ government control, there is no agreement on what it is actually about. The inflationary spread of the elusive storyline ‘from government to governance’ has contributed to this confusion and hampered the building of a unified and coherent understanding.

The contemporary complexity of the real-world phenomenon of governance results from multiple and complex changes in governing over the past decades. As a foundational basis for the governance conceptualization, there is a need to look at the diversity of these changes. In what follows, I will thus reinterpret the storyline ‘from government to
governance by taking a closer look at the two axes of the direction of the changes in governing and the objects of change.

First of all, in terms of the direction of changes, the storyline claims that forms of hierarchical governance have increasingly given way to non-hierarchical ones; implying that authorities and competencies have moved away from the state to other bodies (a shift from state-centric to society-centric governing). In this vein, the mainstream academic debate has presented changes in governing in a fairly unidirectional way - towards non-hierarchical governance. However, there is little empirical evidence supporting this widespread assumption (cf. e.g. Van Kersbergen & Van Waarden, 2004; Kjær, 2004). Moreover, recent empirical research has indeed revealed that the supposed storyline is too superficial and represents an oversimplification disguising the richness of co-existing governance forms (cf. e.g. Tollefson et al., 2008; Koch, 2013). Changes in governing are frequently not unidirectional but bidirectional movements along a continuum between the two opposing extremes of state intervention (traditional hierarchical government control through authoritative allocation of values to society) and societal autonomy (self-organizing networks of co-coordinating societal actors). Also, real-world governance could be placed in most cases somewhere along this continuum, rather than at the extreme poles. Along this line, Jordan et al. (2005, p. 484) argue “government and governance [...] are actually much more intertwined than is implied by some governance theorists”. Using this terminology, ‘government’ and ‘governance’ thus are not fixed and clearly separated entities but could be interpreted as two poles on a spectrum of different governance forms for realizing collective action. Hence, instead of understanding the discourse ‘from government to governance’ as a uniform shift towards so-called ‘new modes of governance’, it is rather to be interpreted in terms of multiple shifts between the two poles on a continuum of state intervention and societal autonomy. Following this perspective, contemporary real-world governing accordingly displays a plurality of simultaneously co-existing modes of governance resulting from multiple shifts in governing. This point of view thus also helps to overcome the competing society-centered and state-centric perspectives in governance literature (for an overview cf. e.g. Bell & Hindmoor, 2009). Yet, the question remains, of what the governing shifts consist in detail, i.e. the objects of change.

The standard discourse ‘from government to governance’ tends to ignore internal differences, especially with regard to which changes in governing it actually covers. It only implies that governing evenly shifts away from hierarchical to non-hierarchical forms with regard to all kinds of aspects. Missing to clearly differentiate, it thus neglects the complex and multifaceted nature of real-world governing phenomena. In the words of Howlett et al. (2009, p. 384), “what makes new governance something new and different is not always clear in accounts provided of the government to governance shift”. The general discourse thus has to be specified. Distilling the governance literature in depth, it becomes apparent that changes in governing have taken place within various different spheres. Examples of changes are shifts in the locus of governance such as novel actors and increasing levels of policy-making, as well as shifts in the focus of governance like changing rule systems and new policy
instruments (for an overview see also e.g. van Leeuwen & van Tatenhove, 2010). The changes have also had an influence on other facets of governing such as power relations between actors, decision-making structures, the way policy is made, how problems are defined and which solutions are considered legitimate. These different spheres are characterized by an interrelated character. For instance, an increasing participation of non-state actors tends to foster a more pronounced multi-level character of processes and non-coercive power relations. These trends in turn provoke new practices of policy-making, challenging the conventional types of law and leading to new, e.g. more informal, rule systems and novel types of soft law, such as voluntary agreements (cf. in this regard empirical findings pointing to complex and mutual influences of certain governance facets, e.g. Capano et al. 2012; Doelle et al., 2012; see also the traditional debates in political sciences on the relationships among political processes, policies and institutions, e.g. Lowi, 1972; see also discussions on the relation between structure and agency as well as actor-institution configurations, e.g. Marsh & Smith, 2000; North 1990). Accordingly, instead of regarding governance changes as one-dimensional shifts, it must be considered that these changes can be a good deal more complicated. Governance today is rather diverse and variegated, showing a ‘messy’ and complex picture. It is characterized by an intrinsic multi-dimensionality, comprising several different facets that exhibit a highly interdependent nature. For understanding governance, this complex interplay has to be considered. I will address this challenge in the following part.

2.2 Structure of the conceptualization: three dimensions and their interplay

Based on the previous section, I argue that a satisfactory governance scheme has to provide a sufficient nuanced picture to capture the sketched out inherent complexity. It also must be able to adequately address the interrelations among the different facets of governance. In order to meet these demands, I propose to conceptualize governance by means of the three interdependent dimensions of governance structures, processes and contents with a particular focus on their interplay. The logic behind this trilogy basically corresponds with the established structuring of the political via the dimensions of polity, politics and policy. Recently, several scholars have argued for using this tripartition for analyzing governance (e.g. van Leeuwen & van Tatenhove, 2010; Treib et al., 2007; Wydra & Püllzl, 2013). Capturing the complexity of governance arrangements by means of three interrelated dimensions and their interplay is a tangible approach that at the same time allows adding sufficient nuance within each dimension. Yet, it must be considered that the tripartition is an analytical distinction. This means that real-world phenomena in its complexity can frequently not be reduced to only one particular dimension. Having this in mind, I do justice to the real-world interconnectedness of the dimensions by explicitly considering their interplay. The structure of the conceptualization unfolds as follows (see figure 1).
i.) With the dimension of *governance structures* I refer to the framing conditions of governance, i.e. to the institutional architecture composed of formal and informal rule systems and the resulting roles, relations and mechanisms of social interaction among actors on different institutional levels.

ii.) The dimension of *governance processes* incorporates the actual decision-making and implementation processes of interaction taking place within governance, which are revealing how the interests of different state and/or societal actors with varying resources, power and influence are transformed into coordinated action.

iii.) With the dimension of *governance contents* I refer to the material policy setting of governance with different products, i.e. the appearance of problem definitions, decisions, objectives and steering instruments as well as of general characteristics such as the degree of the pursuit for learning and integration or the policy-science interface.

iv.) The *interplay* of the interdependent dimensions of governance structures, processes and contents finally highlights three two-sided interlinkages: the structures-processes interplay, the processes-contents interplay and the structures-contents interplay.

From this perspective, governance can be interpreted as the combinatorial consequence of configurations among certain structural, procedural and material characteristics. By exploring this dimensional interplay, a deepened understanding of the complex and multifaceted phenomenon of governance can be reached and the inner functioning of different arrangements be revealed (for a more detailed description of the conceptualization see Lange et al. 2013).
Figure 1: Governance conceptualization
3 Differentiation of governance modes

The second step needed for analyzing the sustainability potential of governance modes is a frame for meaningfully differentiating among modes. Quite similar to the notion of ‘governance’, there is a missing conceptual clarity on ‘governance modes’. There are various different understandings and no universally accepted definition (cf. e.g. Knill, 2004; Toemmel, 2009). In many studies there is a rather undifferentiated picture. When authors use certain labels for signifying particular governance modes, it is frequently not clear what they are really speaking about since this labeling remains on a rather vague level. A coherent taxonomy is very much in its beginning stages. This also holds true for ‘new’ modes of governance. While the term has become a buzzword over the last decade and is used for various normative claims, its meaning differs and frequently remains unclear. It usually labels non-hierarchical forms of governance that incorporate private actors and the wording of ‘new’ implies that these forms have become implemented only recently. However, some governance arrangements may have historically been relatively new in some sectors but long-established practices in other contexts (cf. e.g. Bäckstrand et al., 2010). Moreover, non-hierarchical governing is frequently embedded in hierarchical structures and operates in a ‘shadow of hierarchy’ while hierarchical modes are in many cases affected by deliberative rationalities (cf. e.g. Héritier & Lehmkuhl, 2008). In light of the missing conceptual clarity on governance modes, Hillman et al. (2011, p. 409) concluded that “[p]ast attempts to conceptualize modes of governance have sometimes led to more confusion than clarity [...] Better analytical clarity is needed to arrive at operationalizations useful for empirical research”.

Against the backdrop of the governance conceptualization introduced above, a frame for governance modes should provide a differentiated picture in order to do justice to their inherent complexity. Some authors conceive ‘modes of governance’ on a highly abstract, aggregated societal level. The term then refers to the three famous general ideal types ‘hierarchy’, ‘market’ and ‘network’ (e.g. Lowndes & Skelcher, 1998). However, fully understanding real-world governance arrangements and their relations to SD calls for going beyond such abstract types. Other contributions addressing the issue of differentiating governance modes focus on individual aspects such as policy instruments (e.g. Jordan et al., 2005). Although such studies give useful insights, they do not by themselves help to grasp the complexity of governance modes. Recently, several authors have made efforts to consider this complexity by including multiple aspects in their analyses of governance arrangements. Among these contributions, there are three coherent proposals that aim to meaningfully differentiate among modes of governance. These approaches are introduced in the following.

The first proposal has been developed by Arnouts et al. (2011), who follow Kooiman’s (2003) distinction of hierarchical, co- and self-governance. These three ideal-typical governance modes differ from each other in the extent to which state and non-state actors are involved. Referring to the variety of ways in which these actors can cooperate, the authors further elaborate the mode of co-governance into closed co-governance and open co-governance (the former describing a more restricted, structured and fixed form and the latter
a more flexible and autonomous form of co-governing). This results in a differentiation of four modes of governance that form a continuum. Arnouts et al. then refine their modes via the ‘policy arrangement approach’ (e.g. Arts et al., 2006). This leads to an operationalization in terms of an actor, a power and a rule dimension (table 1).

Table 1: Governance modes according to Arnouts et al. (2011)

<table>
<thead>
<tr>
<th></th>
<th>Hierarchical governance</th>
<th>Closed co-governance</th>
<th>Open co-governance</th>
<th>Self-governance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actors</strong></td>
<td>Mainly governmental acts</td>
<td>Select mixed group of actors</td>
<td>Large mixed group of actors</td>
<td>Mainly non-governmental actors</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>With government</td>
<td>Pooled</td>
<td>Diffused</td>
<td>With non-government</td>
</tr>
<tr>
<td><strong>Rules</strong></td>
<td>Governmental coercion</td>
<td>Restricted cooperation</td>
<td>Flexible collaboration</td>
<td>Non-governmental forerunning</td>
</tr>
</tbody>
</table>

Within their actor dimension, the authors distinguish between state and non-state actors and look at the coalitions that are visible among such actors. Within the power dimension, they focus on the key feature of the relative power of state and non-state actors vis-à-vis each other. Here, the authors propose exploring the means that constitute the capacity of actors, as well as the extent to which the actors use this potential. Within the rule dimension that sketches a certain role division among the actors, the proposed aspects to be investigated are two types of interaction rules: access rules (referring to which actors are allowed to take part in a governance arrangement) and responsibility rules (determining the division of responsibilities among the involved actors).

The second proposal is provided by Hysing (2009). He uses the intensity of state involvement as the distinguishing factor to place different governance modes along a continuum from direct state intervention to societal autonomy. The modes are further differentiated by means of three dimensions that Hysing deduces by distilling the broader governance literature (table 2).

Table 2: Governance modes according to Hysing (2009)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>State intervention</th>
<th>Societal Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public-private relationships</strong></td>
<td>Hierarchic relationship</td>
<td>Institutionalized public-private relations (state domination)</td>
</tr>
<tr>
<td></td>
<td>Facilitation and enabling of networks</td>
<td>Mutual dependency of networks between private and public actors</td>
</tr>
<tr>
<td></td>
<td>Private self-governing</td>
<td></td>
</tr>
<tr>
<td><strong>Policy levels</strong></td>
<td>National state governing</td>
<td>Delegation of authority and responsibility to other levels</td>
</tr>
<tr>
<td></td>
<td>Gatekeeping (governing in implementation)</td>
<td>Multilevel governance (circumventing the national level)</td>
</tr>
<tr>
<td></td>
<td>Governing by a global civil society</td>
<td></td>
</tr>
<tr>
<td><strong>Governing instruments and styles</strong></td>
<td>Command and control (legal sanctions)</td>
<td>Incentive-based instruments (taxes and grants)</td>
</tr>
<tr>
<td></td>
<td>Delegated public functions</td>
<td>Information instruments</td>
</tr>
<tr>
<td></td>
<td>Voluntary instruments (agreements and labeling)</td>
<td></td>
</tr>
</tbody>
</table>
The first dimension is concerned with the relationship between public and private actors. While modes of governance closer to the state-centred side of the continuum are characterized by mono-centric, hierarchically organized political institutions as the prime governors of society, modes near to the society-centred side feature networks of self-governing private and voluntary actors. The second dimension concerns the relations between policy levels. Here, the continuum ranges from governance modes where the level of nation state is the central locus of authority to modes that are characterized by actors and institutions operating on multiple policy levels autonomously from the state. Finally, the third dimension highlights governing instruments and styles ranging from the exercise of sovereign rule by central governments as the primary governing mechanism to soft policy steering tools like information and voluntary instruments.

The third proposal is offered by Driessen et al. (2012). Within this approach, five ideal-typical modes of governance are mapped on a continuum referring to the extent of state and non-state actor involvement. The scheme distinguishes forms where public actors are the main protagonists (subdivided in a centralized and decentralized mode), forms of public-private interactions (‘public–private governance’ and ‘interactive governance’), as well as arrangements where primarily private actors participate (‘self-governance’). These five ideal types are further refined by a distinction of the three dimensions of actor base, institutional features and features concerning content (table 3).
Table 3: Governance modes according to Driessen et al. (2012)

<table>
<thead>
<tr>
<th>Actor features</th>
<th>Centralized governance</th>
<th>Decentralized governance</th>
<th>Public-private governance</th>
<th>Interactive governance</th>
<th>Self-governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiating actors</td>
<td>Central gov't agencies (or supra national bodies)</td>
<td>Gov't at its various levels of aggregation (subsidiarity)</td>
<td>Central gov't agencies; private sector is granted a preconditioned role also</td>
<td>Multiple actors: gov't, private sector and civil society</td>
<td>Private sector and/or civil society</td>
</tr>
<tr>
<td>Stakeholder position</td>
<td>Stakeholder autonomy determined by principal agency</td>
<td>High likelihood of stakeholder involvement</td>
<td>Autonomy of market stakeholders within predetermined boundaries</td>
<td>Equal roles for all network partners</td>
<td>Self-governing entities determine the involvement of other stakeholders</td>
</tr>
<tr>
<td>Policy level</td>
<td>(Supra) national level</td>
<td>Lower levels of gov't</td>
<td>Local to international level</td>
<td>Multiple levels</td>
<td>Local to international level</td>
</tr>
<tr>
<td>Power base</td>
<td>Coercion; Authority; Legitimacy (democratic representation at the national level)</td>
<td>Coercion; Authority; Legitimacy (democratic representation at lower levels)</td>
<td>Competitiveness (prices); Contracts and legal resource; Legitimacy (agreement on relations and procedures)</td>
<td>Legitimacy (agreement on roles, positions, procedures and process); Trust; Knowledge</td>
<td>Autonomy; Leadership; Group size; Social capital; Legitimacy (agreement on relations and procedures)</td>
</tr>
<tr>
<td>Institutional features</td>
<td>Model of representation</td>
<td>Pluralist (popular (supra national election and lobbying)</td>
<td>Pluralist (popular local election and lobbying)</td>
<td>Corporatist (formalized public-private governing arrangements)</td>
<td>Partnership (Participatory public-private governing arrangements)</td>
</tr>
<tr>
<td></td>
<td>Rules of interaction</td>
<td>Formal rules (rule of law; fixed and clear procedures)</td>
<td>Formal rules (rule of law; fixed and clear procedures)</td>
<td>Formal and informal exchange rules</td>
<td>Institutions in its broadest form (formal and informal rules)</td>
</tr>
<tr>
<td></td>
<td>Mechanisms of social interaction</td>
<td>Top-down; command-and-control</td>
<td>Sub-national governments decide autonomously about collaborations within top-down determined boundaries</td>
<td>Private actors decide autonomously about collaborations within top-down determined boundaries</td>
<td>Interactive; social learning, deliberations, and negotiations</td>
</tr>
<tr>
<td>Features concerning content</td>
<td>Goals and targets</td>
<td>Uniform goals and targets</td>
<td>Uniform and level specific goals and targets</td>
<td>Uniform goals; targets actor specific</td>
<td>Tailor-made and integrated goals and targets</td>
</tr>
<tr>
<td></td>
<td>Instruments</td>
<td>Legislations, permits, norms and standards</td>
<td>Public covenants and performance contracts</td>
<td>Incentive based instruments like taxes and grants; performance contracts</td>
<td>Negotiated agreements; trading mechanisms; covenants; entitlements</td>
</tr>
<tr>
<td></td>
<td>Policy Integration</td>
<td>Sectorial (policy sectors and levels separated)</td>
<td>Sectorial (policy sectors separated)</td>
<td>Sectorial (branches and industries separated)</td>
<td>Integrated (policy sectors and policy levels integrated)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dominance of issue and time-and-place specific knowledge</td>
<td>Dominance of issue and time-and-place specific knowledge (citations)</td>
</tr>
</tbody>
</table>
Within the actor dimension, the following key features are proposed: the key actors that initiate action, the position of other stakeholders, the predominant policy level, as well as the power base of the key actors. Within the institutional dimension, the model of representation, the rules of exchange and interaction, as well as the mechanisms of social interaction are explored. Finally, with regard to content, the following features are studied: the types of goals that are pursued, the policy instruments used, the extent to which policies are integrated or not, as well as the type of knowledge that is used for policy-making. Driessen et al. have deduced these key features together with their framing dimensions by distilling governance literature in general.

All three proposals share the same starting point: the degree of state and non-state actor’s participation in governing. In general, governance modes where public actors are predominant are differentiated from modes characterized by public–private interaction and private actor dominated modes. Within this continuum different ideal-typical governance modes are located. Furthermore, all authors highlight that a nuanced picture is needed to capture the variety of phenomena governance is concerned with. Accordingly, they all operationalize governance modes with the help of distinct dimensions and key features. In light of the conception of governance, I argue that the frame for governance modes should cover all three dimensions of structures, processes and contents and come up with a differentiated picture within each category in order to grasp the complexity of real-world arrangements. It becomes apparent that elements from all dimensions can be found among the proposals, while the authors make different emphasis. Within the approach of Driessen et al. all three dimensions are represented. In terms of key features used to distinguish among governance modes in detail, both Arnouts et al. and Hysing use a single feature per dimension. Driessen et al. use a range of features inside each of the dimensions. They also include features that are hitherto discussed to a lesser extent within (SD) governance literature (such as the policy-science interface). The scheme thus allows for the equal consideration of the three dimensions and covers a broad range of relevant key features to meaningfully distinguish among governance modes. Accordingly, Driessen et al. do succeed in providing a differentiated picture, making the proposal well suited as a heuristic device to analyze real-world governance arrangements.

4 Grasping the impacts of governance

For exploring the sustainability potential of governance modes, the interface between governance and its outcomes must be explored, i.e. what happens in the meantime of governance practices and its results on the ground. Having introduced the governance conceptualization to understand real-world arrangements (and their possible ways for inducing change) as well as a formal frame for differentiating modes, the next step required
is to grasp the impacts of governance. Since in the literature there is much confusion about the accumulated results of governance, first of all, a clarification is given in this regard. Afterwards, the proposal for capturing impacts is presented.

4.1 A clarification of the results of governance

Relevant research strands with regard to the results of governance are the classical performance measurement of government programs, the evaluation of policy effects or their ex-ante assessments, as well as attempts to evaluate the effectiveness (output legitimacy) of governance. For instance, recent work focuses on the environmental effectiveness of participatory and deliberative forms (e.g. Hogl et al., 2012; Newig & Fritsch, 2009). However, thus far, there is no consistent understanding of key terms within the different streams of literature. In the words of Emerson et al. (2011, p. 18), there is an overall “confusion in the literature about the impacts, effects, outputs, and/or outcomes” of governance. A general theoretical desideratum is thus to provide greater conceptual clarity on governance results.

Striving for this clarity, three forms of results are differentiated here: outputs, impacts and outcomes. Outputs are the direct products of governance that are implemented to solve the collective problem addressed, such as steering instruments. Following the understanding of governance presented above, outputs are perceived as part of the contents dimension, which includes both goals and means to realize such goals. Impacts are then conceived as intermediate results induced by governance, which can be described as events, behaviors or occurrences within society that appear outside the actual workings of governance. These impacts lead to outcomes, understood as the end results on the level of the overall system, i.e. changes in environmental and socio-economic conditions (within the literature there can also be found a contrariwise understanding perceiving outcomes as intermediate effects and impacts as end effects).

Accordingly, governance impacts are generally understood here as changes within society, which are initiated by governance and ultimately lead to outcomes. However, the upcoming crucial question is: where exactly do such changes within society occur and how can these impacts be grasped? Within classical policy research the dominant understanding of policy impacts is the behavioral change of target groups (addressees) of a public policy (cf. e.g. Knoepfel et al., 2011). Following the prominent model of the policy cycle (cf. e.g. Parsons, 1995) and the simplified model of the political system (Easton, 1965), behavioral change of target groups is regarded as a direct reaction on formal policy outputs (tangible end products of political-administrative processes). However, following this conception of impacts for the purpose here would not do justice to the broader perspective of the governance concept, especially in view of self-governing forms. Also, since governance takes into account the blurring of boundaries between steering subjects and objects (cf. e.g. Mayntz, 1998), it is likely that there are more relevant products of governance that initiate change than just formal tangible outputs. As non-hierarchical governance modes are
concerned ‘the output [...] often includes intangible results such as joint problem understandings, common values, future visions, enhanced coordination, cooperative processes, and so on’ (Sørensen & Torfing, 2009, p. 240). More generally, outputs may not be the only interface between governance and its environment. Similarly, target groups might not be the sole relevant actors that need to be considered for analyzing changes stimulated by governance.

Taking these considerations into account, all three interdependent dimensions of governance structures, processes and contents are regarded as potential factors for initiating changes within society, i.e. governance impacts. From this broad understanding it follows that there is a multitude of relevant categories of change to be considered. The next section presents a heuristic that aims to cover this diversity.

### 4.2 Conceptualizing governance impacts

There are various realms within society that need to be taken into account for understanding governance impacts. First and foremost, I follow the assumption here that it is through actors that alterations within the real-world materialize. Taken together, actors shape the society they are living in. However, it is not sufficient to only explore the actual actions of actors. There are other important categories of change that need to be taken into account. For instance, governance might provoke alterations within societal discourses or changes within institutional rules and structures that determine the actions of actors. I am thus looking for a perspective that considers both structure and agency and grasps the dyadic relationship between the actions of actors and institutions. This follows the line of reasoning of approaches such as the actor-centered institutionalism (Scharpf, 1997) or the dialectic model of policy networks (Marsh & Smith, 2000). It should also incorporate the role of discourses and belief systems in accordance with approaches like the policy arrangement approach (e.g. Arts et al., 2006) or the advocacy coalition framework (e.g. Sabatier, 1998). Since transformations within society get materialized through actors, I argue that it is possible to capture these categories by means of an openly conceptualized actor-centered approach; more specifically an approach that focuses on action strategies. I will show below that by exploring the strategies of actors affected by governance, it is possible to come up to the above demanded openness for a range of analytical categories of change. However, first of all, I have to address two challenges, namely clarifying the demarcation of and the relationship between governance and its impacts.

How to demarcate governance from governance impacts, in other words, the actual workings of an arrangement from its impacts? One might be tempted to do so by means of the type of involved actors. However, due to the blurring of boundaries between steering subjects and objects, both the realms of governance and governance impacts potentially include both public and private actors. There is thus a need for a different heuristic of demarcation. Basically, I look upon governance from the perspective of regulating public issues and goods in light of collective problems. Along this line, also non-hierarchical modes
such as self-governance are regarded as coordinative ‘public’ actions. From an analytical point of view, I follow the classical perspective of ‘those who are steering and those who are steered’; yet, I do not focus on actors but on actions. I thus distinguish the actual workings of governance from impacts by means of the character of actions or, more broadly, action strategies. While within the realm of governance these are coordinated according to a common goal of public interest or a collective problem (coordinated action of public nature), they are individualized within the realm of impacts and can be attributed to the private domain (individualized action of private nature - however, this does not mean that I am only talking about individual actors here but also of collective actors, cf. below). Individualized strategies can indeed influence each other and relationships among them can be established, for instance, through discourses or institutional rules; however, they are not characterized by coordinated interactions in pursuit of shaping societies.

Apart from this, the relationship between governance and its impacts has to be addressed carefully. In each case it has to be scrutinized if changes on the level of impacts can in fact be attributed to the governance workings in question - as opposed to other potential influencing factors, such as interfering governance modes or macro-contextual aspects. Moreover, it has to be considered that governance evolves over time and includes various practices at multiple levels. A governance arrangement starts with its initiation by certain actors. At this stage there is not yet an impact. While the arrangement evolves over time and first practices are conducted, there might be an identifiable impact due to these impulses. This stage might then be followed by other practices that also provoke an impact. Taking this into account, I basically consider different temporal orders of governance and impacts in order to cope with the complex nature of this dynamic sequence (in terms of governance, these orders might also correspond to different levels of governance; from the national to the local level). In order to understand this sequence, a deepened understanding of both governance and its impacts is required. With regard to governance, this is reached by the conceptualization that discloses its inherent complexity as dynamic interactions among structures, processes and contents. Regarding governance impacts, I aim to reveal in detail the strategic reactions, i.e. responses of affected actors leading to change within society. In the following, I will clarify my central analytic categories for this endeavor. Figure 2 provides a corresponding overview the synthesized model that includes governance, its impacts and outcomes.

I define governance impacts as the ‘entirety of changes in the action strategies of actors affected by governance’. This definition requires a clarification of the strategy term and of the relevant actor arena. In terms of actors, I aim to overcome the classical restriction on target groups as the only relevant affected actors. Accordingly, I regard all actors within society to be potentially affected. This includes individual, collective and corporative actors (see e.g. Scharpf, 1997) as long as their actions or action strategies are individualized and not coordinated. Furthermore, both directly affected and indirectly affected actors are included. This covers groups such as target groups (i.e. actors whose behavior is seen as the (in)direct
cause of a collective problem that a given governance arrangement addresses or who are able to take action to deal with it), end beneficiaries (i.e. actors, who experience negative effects of a collective problem at hand and whose economic, social, professional or ecological circumstances should be improved once the results of governance occur) and third party groups (i.e. actors, who - without being directly targeted by governance - are affected indirectly, either positively or negatively) (cf. e.g. Knoepfel et al., 2011). However, this is only to be seen as an orientation since, for instance, not all real-world arrangements may have end beneficiaries. Taken together, directly and indirectly affected individual, collective and corporative actors span the actor field with regard to governance impacts. With these broad categories I aim to cover the full range of potential impacts, while taking into account the blurring of boundaries between steering subjects and objects. The question of which actors are ultimately considered in detail is case-sensitive and needs to be addressed within empirical research.

Having clarified the actor field, I can now focus on the strategy term. With regard to ‘strategy’, there is thus far no common understanding or even a coherent theory. I follow the idea of Tils (2005) to conceive strategies as building on dynamic, trans-situational and success-oriented ‘goals-means-environment-calculations’. Adapted to my context, I accordingly conceptualize action strategies as constructs, which rest on strategy calculations composed of the following items:

- **Strategy goals**, that I divide into material goals (e.g. economic or political interests) and immaterial goals (e.g. normative ideas and belief systems) of an actor,

- **Strategy means** encompassing the material resources (quantifiable goods such as money and available personal) and immaterial resources (e.g. knowledge, capabilities or power) of an actor as well as the measures to realize the strategic goals; and finally the

- **Strategy environment** that I distinguish into five types of frame conditions, which characterize the specific strategy context (these conditions can be either stable, i.e. systemic, or instable, i.e. situational):
  - Political-institutional frame conditions (broader political-institutional structures shaping the action strategies of actors)
  - Socio-economical frame conditions (the constraints and consequences of the social, technical and economic conditions within a society)
  - Informational-cognitive, cultural frame conditions (the prevailing knowledge base as well as long-term belief systems concerned with forms of behavior that are shared by the majority of a society) and finally the
  - Actor constellations and the influence of other actors.
Figure 2: Governance impacts
By means of considering all these items within calculations, each actor referred above pursues an individual action strategy with regard to a certain policy field or collective problem that a specific governance practice addresses. Action strategies can be formally divided into the two phases of *strategy development* and *strategy implementation*. Yet, in reality, the lines between these dynamic phases are frequently blurred and implemented strategies are often readjusted by altered calculations. Action strategies are to be seen as general courses of action: the implementation of strategies can consist of several actions and institutionalization processes, however it may also lead to non-actions, i.e. remaining passive or omitting certain actions. The term of action strategies accordingly not only covers the calculations but also actual actions (respectively the omission of certain actions).

My focus of interest then lies on the changes in the action strategies that are induced by governance. Impulses coming from governance can affect only one or a range of the above items within the strategy calculations. Examples are changes in the knowledge of a certain actor about a problem or in the socio-economical conditions framing the actions of actors. The items can also have an influence on each other eventually affecting the calculations - for instance, changed institutional frame conditions might lead to changes in terms of goals or power of a specific actor. Changes within strategy calculation may ultimately lead to alterations in the phase of strategy implementation in terms of actions. The according chain of governance practices and impacts can be characterized as follows. Practices of governance - materialized by governance structures, processes and content - stimulate changes in the strategies of affected actors. This might occur by means of several governance activities over time. The entirety of these changes is perceived as governance impacts.

In sum, the perspective of action strategies is an appropriate approach to capture the multiple areas where governance impacts can emerge. The specific strength of conceptualizing impacts as changes in action strategies consists in the openness of the approach. It is not only differentiated and clear but also comprehensive: The strategic momentum connects the goals of actors with their means and the broader strategy environment that influences the corridor of action. Relying on these systematic calculations, action strategies cover a broad range of change factors that can be stimulated through governance. In so doing, it is able not only to consider the actual actions and institutionalization processes that are induced by governance but also the ‘meso-context’ of actors (such as institutional rules and societal discourses). This is important since certain impulses from governance may, for example, not lead to actual actions and institutionalizations at first but nevertheless induce important changes at the meso-level that might provoke actions at a later time. Moreover, the approach can be applied to the courses of action of collective actors, transcending the individual realm. Together with the governance conceptualization, I consider the approach to be a promising way for understanding the complex sequence of governance and its results.
5 Sustainability assessment criteria

Having disclosed a way for grasping the impacts of governance, the last theoretical task is to find adequate theory-based assessment criteria in order to evaluate the impacts in terms of sustainability. Generally speaking, SD is far from being a well-characterized concept. Despite its widespread support as a universal regulative ideal, a large discrepancy exists between the intuitive version of the general mission statement and its theoretical conceptualization and operationalization (cf. e.g. Kates et al., 2005). Basically, the notion of ‘sustainability’ calls for connecting the political goal of global justice and the related discourse on human development with the fact of restricted environmental resources and fragile ecosystems. It is, at its root, a hybrid term linking normative (intra- and intergenerational justice) with systemic (mechanisms of human–nature interaction or processes in socio-ecological systems) foundations (cf. e.g. Christen & Schmidt, 2011). This general regulative ideal then has to be filled with substance in order to reach at comprehensible differentiations between ‘sustainable or more sustainable’ and ‘non- or less sustainable’.

In order to interpret the changes in action strategies of actors affected by governance in terms of sustainability, a set of content and process criteria is proposed (figure 3). In general, the criteria remain on a rather broad level since they are meant to provide an orientation for interpreting governance impacts in light of overall sustainability goals. They do not aim at an encompassing and detailed sustainability assessment but rather at a general interpretive appraisal of empirical findings. The guiding question is if there are good reasons to regard the respective changes induced by governance as an actual contribution to SD. The content criteria particularly address a certain sector of sustainability - the energy sector - supposing the empirical research explores real-world arrangements in the field of energy policy. This is to be seen as an example - for a different domain, the criteria would have to be adjusted. I follow the idea of an integrative sustainability understanding in contrast to a dimensional approach (see also e.g. Gibson, 2006). As a consequence, I speak of substantial minimum requirements that are to be seen as a whole; each requirement is to be fulfilled within the boundaries of the others. Based on the synthesis of a literature review with regard to relevant criteria constituting a sustainable energy system, fourteen requirements were deduced that are allocated to six general goals (see also e.g. Grunwald & Rösch, 2011). The goals of a sustainable energy system include: ecological compatibility, human well-being, supply security, risk handling, economic efficiency and upholding adaptation options. On the other hand, the process criteria - three procedural requirements of sustainable action strategies - were synthesized based on a review of relevant criteria for actions guided towards SD (see also e.g. Shiroyama et al., 2012; Newig et al., 2008; Huh, 2011). These requirements arise from three general challenges associated with the pursuit of sustainability: coping with the future orientation and intergenerational scope, doing justice to the complexity of cross-sectoral and multi-scale sustainability challenges, and finally handling uncertainty of system dynamics and the resulting ambivalence of sustainability goals.
### Sustainability assessment of governance impacts in the energy sector

*Guiding question: Do the changes in action strategies of actors affected by governance, i.e. governance impacts, contribute to a sustainable development of the energy system?*

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<th>Content criteria</th>
<th>Goals and substantial minimum requirements of a sustainable energy system</th>
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<td><em>Guiding sub-question: Do the changes contribute to meeting the substantial minimum requirements of a sustainable energy system?</em></td>
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<td></td>
<td><strong>Ecological compatibility</strong></td>
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<th>Procedural criteria</th>
<th>Challenges and procedural requirements of sustainable action strategies</th>
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<td><em>Guiding sub-question: Do the changes contribute to meeting the procedural requirements of sustainable action strategies?</em></td>
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<td>Coping with the future orientation and intergenerational scope of sustainability</td>
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<td>Doing justice to the complexity of cross-sectoral and multi-scale sustainability challenges</td>
<td>Doing justice to the complexity of cross-sectoral and multi-scale sustainability challenges</td>
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<td>Handling uncertainty of system dynamics and the resulting ambivalence of sustainability goals</td>
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<td>Strengthening reflexivity in courses of actions while preserving options for development and (re-)action</td>
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<td>Expanding an integrative perspective in terms of thematic scope and spatial scales of action while coping with distributed power</td>
<td>Expanding an integrative perspective in terms of thematic scope and spatial scales of action while coping with distributed power</td>
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<td>Supporting social learning processes by means of deliberative characteristics in courses of actions</td>
<td>Supporting social learning processes by means of deliberative characteristics in courses of actions</td>
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*Figure 3: Sustainability assessment of governance impacts by the example of the energy sector*
6 Conclusion

The lively debate on how to govern societies toward more sustainable tracks reflects the demand for suitable sustainability governance and for understanding which mode of governance (or mix of modes) is best suited for promoting SD. Within the literature, there are several normative claims putting emphasis on ‘new’ modes of governance. However, thus far empirical analyses that explore the relationship between governance modes and sustainability are rare. It is thus an open question how to govern in such a way that SD is best fostered, i.e. which forms best reflect and serve the functions of sustainability.

To explore this relationship, the complex sequence of governance and its results must be explored. Since actual contributions to SD on the ground are hardly measurable when the notion is taken seriously, this paper proposed to explore the potential of governance modes to contribute to SD. It thus focuses on the societal changes that occur in the meantime of governance and its end results on the ground. Taking up existing conceptual confusion on ‘governance’, ‘modes of governance’ and ‘the results of governance’, the paper has presented a theoretical framework that can serve as a basis for empirical research. It consists of four parts: a governance conceptualization that covers the inherent complexity and inner functioning of real-world governance arrangements, a scheme for a meaningful differentiation of governance modes, an approach for grasping governance impacts and a proposal for the sustainability assessment of these impacts. Together, the four theoretical bricks can build the fundament for case study research, such as comparative evaluations of real-world arrangements that represent the full range of governance modes.

Overall, the paper sheds light on governance, its modes and results in light of sustainability by providing conceptual clarification to this elusive field. It can serve as a foundation for critically discussing correlations between governance modes and their sustainability potential and scrutinizing normative assumptions on the merits of certain modes. Accordingly, the paper adds to the discourse on how to steer societies towards more sustainable tracks. In so doing, it also contributes to understanding the prerequisites for effective governance in general and the design and effectiveness of hierarchical, market, network and hybrid modes of governance more specifically. Since the findings together foster a deepened understanding of governance in pursuit of SD, the thesis also contributes to better informing societal practitioners in the field of sustainability governance.
References


