

## **Sustainability Governance Foresight:**

### **Towards Bridging the Knowledge Gap between Policy Analysis and EU Governance for Sustainable Development**

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#### **Abstract**

Ever since 1997, sustainable development (SD) represents an overarching objective of the European Union (EU), guiding all its policies and actions. However, there is still tremendous amount of conflict and disagreement with regards to management and futures of governance for SD. Policymakers thus increasingly turn to policy analysts for a reasoned knowledge-based policy advice. In its ideal form, policy analysis as a sub-discipline of political science applies theory and analytical methods in order to sharpen the focus of policymakers and identify critical issues and alternatives for public action. In particular, Foresight approach and Futures Research Methods (FRM) represent progressively more popular means to produce policy-relevant strategic knowledge.

In practice, policy analysts lack the capacity to provide quality ex-ante policy advice on the ways to adapt governance for more SD. They often fail to revise and adapt the mainstream conceptions of policy analysis and their traditional role in policymaking in light of the new knowledge needs of policymakers. This paper examines how mainstream policy analysts need to rethink and adapt their theoretical, epistemological, methodological, and methodical approaches in order to better inform governance for SD. Thereby, it focuses on exploring the applicative potential of Foresight approach and FRM to bridge the knowledge gap between policy analysis and governance for SD.

*Keywords: policy analysis, Foresight, futures research, governance, sustainable development, scientific policy advice, epistemology, methodology*

#### **1. Introduction**

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The existing literature provides a range of detailed accounts of research issues and questions to be addressed by policy analysts, the methodical tools and tool-boxes to be applied, as well as the analytical competencies to be developed by policy analysts aiming to inform governance<sup>2</sup> for more SD. However, the level of analysis is largely limited to the 'first-order observations',<sup>3</sup> dealing with the observed It studies governance for SD in terms of processes, structures and tools for SD, while ignoring its requirements in terms of observing processes of policymakers and policy analysts, i.e., the ways in which they as observers perceive the world. Policymakers and policy analysts are treated as 'black-boxes'<sup>4</sup>, i.e., their observing systems are left out of sight.

In contrast, this paper argues that the gap between the results of policy analysis and their application by policymakers can be addressed sufficiently only at the 'second-order observation level',<sup>5</sup> i.e., by analysing the cognitive processes of policymakers and policy analysts in terms of their blindness and insight for governance for SD. In this perspective, policymakers need to frame governance through the sustainability lens in order to adjust governance for more SD, as "seeing differently is the first step to doing differently."<sup>6</sup> Correspondingly, policy analysts have to revise their theoretical, epistemological and methodological approaches to policy analysis in a way that allows them to better address the 'cognitive barriers'<sup>7</sup> of policymakers in terms of framing governance in the SD perspective.

In order to help policy analysts to gain such systematic reflexivity<sup>8</sup>, the paper proposes a comprehensive frame for exercising Sustainability Governance Foresight (SGF) that should resonate most closely with policy analysts aiming to use Foresight approach to provide policy advice on governance for more SD. The frame is also relevant to policymakers, providing means to understand the own cognitive barriers to mainstreaming SD in policymaking and to critically apply Foresight for better governance for SD.

The paper draws on research undertaken by the author for the PhD thesis.<sup>9</sup> It is based on three methods, including the review of scientific literature, semi-structured interviews with policy analysts, Foresight practitioners and policymakers in the EU and the USA and the participatory observation of the SD coordination in Austria, the EU and the OECD. Further valuable data were drawn from the EU research project 'future-university - European Master in Future and Foresight Studies', and the Millennium Project of the American Council of the United Nations University.<sup>10</sup>

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<sup>2</sup> Governance in this paper refers to "every mode of political steering involving public and private actors, including traditional modes of government and different types of steering from hierarchical imposition to sheer information measures" (Héritier, 2002, pp. 1).

<sup>3</sup> For a comprehensive literature review see Jakil, 2011a.

<sup>4</sup> Von Foerster, 1982.

<sup>5</sup> Luhmann, 1995; Von Foerster, 1993.

<sup>6</sup> Hardi /Zdan, 1997.

<sup>7</sup> The concept of 'cognitive barriers' in this paper widely corresponds with what Von Foerster refers to as 'perceptual disorders' or 'Wahrnehmungsstörungen' (Von Foerster, 1979; 1993).

<sup>8</sup> According to Coghlan / Brannick, 2005, the systematic reflexivity refers to the epistemological and the methodological self-reflexivity and self-control.

<sup>9</sup> Jakil, 2006; 2008; 2011a; 2011b.

<sup>10</sup> The author worked for the Millennium Project of the American Council for United Nations University from 2004 to 2007 and acted as a project manager of the EU project "future-university" between 2002 and 2004.

## 2. Cognitive Challenges of Perceiving Governance in Sustainable Development Perspective

In the EU, policymakers encounter a wide range of cognitive barriers and challenges to perceiving governance in the SD perspective. First, policymakers severely struggle to tackle the *discursive nature of the SD concept* as they tend to conceive it as a temporally static, absolute, ideal end-state of societal development concept that is perspective independent. Consequently, they not only lack the capacity to account for the continuously changing and often opposing understandings of SD. They also fail to identify the synergies between the SD discourse and other growth discourses and remain blind for the heterogeneous and often opposing framings of the SD concept leading to severe political controversies and deadlock situations.

Secondly, policymakers have difficulties with making a *sustainability shift* at six meaning dimensions of political thinking, including the temporal, spatial, issue, dynamic, power and ethical dimension.<sup>11</sup> Structural preference of the present in democracies and short-term, profit-oriented neoliberal growth paradigm prevent policymakers to adopt a long-term temporal horizon in political thinking. Absolute notion of space, resulting in a state-, local-, euro- and ethnocentric political thinking limits their capacity to account for global extensive interconnections across space. Furthermore, policymakers struggle to adopt a multi-issue, multi-sectoral, integrated view on policymaking as they tend to base their thinking on the principle of necessary and sufficient cause, resulting in the issue-centred perspective and in primacy of the economic perspective in political thinking. Policymakers also tend to rest their cognitive function upon the principle of conservation of rules, causing their preference for the trend thinking, the futurism and the linear model of growth that limits their capacity to account for dynamic dimension of policymaking, in particular for natural and social limits to growth and for the possibility of a system's break down. The traditional state-centred, hierarchic concept of policymaking as 'governing' and the technical positivist notion of policymaking reduce their capacity to adopt a multi-stakeholder approach to policymaking. They thus fail to provide sufficient feed-back channels for communication and networking in order to involve a wide range of relevant stakeholders early in the policymaking process. They also struggle to tackle the interpretation dilemmas and gaps between different communities (e.g., citizens, politicians, and public administration). The concept of representative democracy and the 'I will if you will' mentality limit the ability of policymakers to account for the micro-ethical perspective of policymaking, including the need to re-privatise the ethical responsibility of each and every one for the common wealth.

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<sup>11</sup> According to Luhmann (1995), political thinking can be explored as the experience of meaning or of meaningful action that represents a process taking place in reference to different dimensions of meaning, i.e., the referential structures of meaning in political thinking of policymakers. Through them, policymakers regulate, what problems are considered relevant, what behaviour and courses of action come into consideration in a system, and what is the behaviour that is attributed to the environment. Luhmann argues that each experience of the world and the fixation of its meaning can be ordered only according to the temporal, issue and social dimension of meaning. This paper enhances Luhmann's model of meaning by distinguishing the power and ethical dimension as sub-dimensions of the social dimension and by adding the dynamic dimension of meaning that also proved to be essential for thinking policymaking in the SD perspective.

Thirdly, policymakers exhibit limited capacity to understand the *implications of global change*, i.e., of large-scale structural transformations in global political organisation on governance in the SD perspective. Their understanding of international relations (IR) is typically based on old paradigm thinking<sup>12</sup> and its derivatives including the realist, the liberalist, the pluralist and the globalist maps of IR. Thus policymakers tend to observe the changing patterns of global affairs only within existing global political structures and systems. Consequently, they fail to account for the long-term, multi-issue, multi-party, micro-ethical horizon, as well as for the non-trivial dynamics of global change. For example, they struggle to account for the acceleration of the pace of politics at all community levels, for the confounded spatial and temporal dimensions of global governance and for the increasing fluidity and dynamic nature of sovereignty of states. They also fail to observe the increasingly non-territorial, non-linear and dialectic nature of simultaneous shifts of authority toward the transnational and sub-national level, the simultaneous forthcoming of the extensive interconnections across space, and the intensive interconnections reaching into the level of personal conduct. Also, mainstream policymakers typically remain blind for the reciprocal interdependence between market and state and examine the global governance patterns as systems centred on multiple issues.

### **3. Theoretical Shortcomings of Mainstream Policy Analysis for Governance for Sustainable Development**

The commonly adopted positivist and critical rationalist approaches severely limit the capacity of policy analysts to help policymakers better account for discursive nature of the SD concept, to make a sustainability shift in political thinking and to frame global change in the SD perspective. This is the case due to several theoretical shortcomings. First, mainstream policy analysts typically rely on a phase-focused and rational model of policy process producing single, bounded, independent and invariable policies to achieve fixed policy goals. In this model, political ideas such as the SD serve the mere legitimation of power and interests, and have only a peripheral function for real policy change. Thus policy analysts often remain blind for the discursive struggles over the concept of SD as a mode of influence.

Secondly, a large part of policy analysts tends to rely on the behaviourist stimulus-response notion of policy learning as a transfer of the available 'know-that' knowledge from the heads of policy analysts to the heads of policymakers. They conceive knowledge as commodity that can be transmitted with the help of an appropriate stimulus to evoke the conditioned reflex of policymakers to adapt to the external world. Their role in this process is the role of a 'Philosophenkönig' who studies the efficiency and effectiveness of governance for more SD in order to provide instructions that stimulate single-loop adaptation or improvement learning. Thereby, they see policymakers' brain as a black box and have a highly elitist non-critical self-understanding. Alternatively, policy analysts follow the more progressive cognitivist notion of learning as a problem-solving process. In this perspective, they recognise the necessity to support policymakers at processing and transforming information into policy knowledge. Thus they take the role of tutors who predefine policy problems and provide policymakers with the necessary 'know-how' knowledge, i.e., the right procedures, methods and tool-boxes to solve these problems. However,

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<sup>12</sup> Groff, 2003.

both notions of policy learning severely limit the capacity of policy analysts to aid policymakers at making the sustainability shift in their political thinking, i.e. at critically reflecting their observation processes and question their horizons of political thinking in the SD perspective.

Nevertheless, mainstream policy analysts struggle to help policymakers to improve their ability to account for global change through sustainability lens because they largely rely on *theories of IR* deriving from the old paradigm thinking. For example, assuming that global affairs form a static order that is changing according to certain patterns and that is manageable and controllable, they fail to account for the long-term futures horizon of global change. By depicting and examining the patterns of global affairs as a two-level international system characterised by a clear division between the foreign and domestic affairs, they fail to account for the truly global dimension of global change, i.e., for the transnational scope of change in patterns of global affairs, which is in focus of the SD community. Moreover, the issue-centred and causalist notion of IR limits their capacity to assist policymakers at accounting for the multi-issue nature of global change.

#### **4. Epistemological Needs of Policy Analysis for Governance for SD**

The above typology of shortcomings of mainstream theoretical approaches enables to define three central epistemological needs of policy analysis for governance for SD: the need to observe the discursive nature of policymaking in order to help policymakers to account for the pluralist interpretative nature of the SD concept, the need to account for the processes by which policymakers acquire knowledge in order to support them at making the sustainability mind-shift in the political thinking, and the need to tackle the deeply uncertain nature of global change due to its perspective-dependent and non-linear nature.

Foresight<sup>13</sup> approach and FRM such as scenario workshops and Delphi studies represent promising means for meeting these epistemological needs. However, in practice, policy analysts tend to adopt an unreflected approach to choice and use of FRM that is fuelled by quantitative research logics behind their research practices. They assume that their application of FRM is perspective independent, the qualitative research is less scientific as quantitative research, the quality of research improves with better efficiency of single research methods, and that mixing the FRM automatically leads to better research results. Thus policy analysts typically follow a standardised, operationalised and unreflected approach to using FRM in Foresight that is highly insensitive to their epistemological needs when aiming to inform governance for SD. Moreover, they typically rely on systematisations that frame FRM as homogenous, monolithic, neutral, i.e., context-independent research paths for exploring the social reality that can be clearly delineated from each other and methodologically canonised.<sup>14</sup>

#### **5. Paradigmatic Typology of FRM for SGF**

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<sup>13</sup> Foresight is thereby commonly defined as “systematic, participatory, future intelligence gathering and medium-to-long term vision-building process aimed at present day decisions and mobilising joined actions” (Malta Council for Science and Technology, 2001, pp. 1). It is characterised by the opened, participatory and decision-oriented approach.

<sup>14</sup> Lamnek, 1995.

Policy analysts can profit from any type of FRM in order to exercise quality SGF. However, they need to choose and use FRM in a way that is sensitive for their applicative potential to meet the epistemological needs of policy analysis for governance for SD. This potential is determined by the futures paradigm informing it.

The *first generation FRM* are informed by the desire to forecast the future and “to make plans and perform activities fitted to the ‘forecasted’ futures as perfectly possible.”<sup>15</sup> They are thus primarily aimed at diminishing the uncertainty of the future and at controlling it by uncovering the simple mono-causal relationships between distinct parts of social reality, by studying the first order reality, and by emphasising empiricism, testability, objectivity and rationality. Also referred to as ‘Forecasting FRM’,<sup>16</sup> the first generation FRM for example include different trend-extrapolation techniques for mechanic projection of the past trends into the future and the ‘social indicators’<sup>17</sup> for monitoring the state of society in order to produce some quantitative picture of it.

The *second generation FRM* are based on the notion of the future “as consisting of a range of possible alternatives, more or less probable, more or less desirable.”<sup>18</sup> They derive from second generation futures thinking that embraces the uncertainty of the future instead of trying to control it. As such, they are primarily aimed at exploring how the future might or should evolve in different ways. They include scenario techniques that attempt to prepare policymakers for the threats and desirable alternatives in the future. Policy analysts who conceive the uncertainty of the future as a consequence of the complexity of societal system use the second generation FRM to produce a range of futures alternatives on the basis of culturally defined present. Thus they use FRM to connect together various driving forces, trends, and conditioning factors in order to elaborate futures narrations on high and low figures that constitute deviations from the norm.<sup>19</sup> In contrast, policy analysts who perceive the uncertainty of the future as a consequence of the epistemological assumption that the world is socially constructed use second generation FRM to (re)construct alternative futures on the basis of different interpretations and framings of the future.

The *third generation FRM* are informed by the post-positivist idea of ‘making the future’.<sup>20</sup> They derive from futures thinking that conceives the uncertainty of the future as a consequence of the normative nature of futures thinking. They are thus based on the assumption that personalities are always present in all scenarios as well as in the understanding of the reality. They are committed to deconstruction, i.e., to analysis of power. They represent means for challenging the categories of thinking for constructing alternative futures. For example, Causal Layered Analysis (CLA) offers a matrix for analysis of futures from the common rationality, social and policy sciences, discursive and metaphorical/mythical level. It allows policy analysts “to systematically reveal deep worldview commitments behind surface phenomena” and

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<sup>15</sup> Mannermaa, 1988, pp. 294.

<sup>16</sup> Miles et al., 2002.

<sup>17</sup> Bell, 2003.

<sup>18</sup> Gordon, 2003.

<sup>19</sup> Inayatullah, 1999.

<sup>20</sup> Mannermaa, 1988.

to create new transformative spaces for questioning and creating alternative futures.<sup>21</sup>

## 6. Typology of Epistemologies in Sustainability Governance Foresight

So as to exercise quality SGF, policy analysts need to explicitly reflect, how a distinct epistemological orientation influences their ability to meet the epistemological needs of policy analysis for governance for SD. Policy analysts can rely on different epistemological frames ranging from mainstream positivist to interpretivist and critical epistemological frame. These frames concern their often implicit assumptions about the nature of knowledge and about the ability to know the future. They importantly determine their research interest and goals of SGF as well as their preference for and use of FRM in SGF.

*Positivist SGF* is captured by the predictive orientation, attributing uncertainty of the future to the complexity of the world. Aiming to control the future by forecasting what will happen, it attempts to find invariance and identifies trends and events on the basis of the regularity principle.<sup>22</sup> Consequently, typical outputs of positivist Foresight are alternative visions in a given paradigm or episteme. They provide a simple range of quantitative deviations from the norm, expressed by high and low figures on present projections of a policy issue. They represent single-value deterministic images of the future that ignore the uncertainty arising from unprecedented events, noise, chance, systemic changes, experimental and observational errors as well as from the underlying values and assumptions.<sup>23</sup> While positivist epistemological frame represents the dominating approach in the EU Foresight exercises, it severely restricts the capacity of policy analysts to tackle the epistemological needs of policy analysis for governance for SD. For example, by remaining blind for the qualitative change, i.e. the change in subject-object and subject-subject relationships, positivist SGF fails to account for deep uncertainty of global change.

*Interpretivist SGF* is rooted in the reconstructivist paradigm that attributes the uncertainty of the future to the interpretative nature of knowledge. Thus it focuses on decolonising and subjectivising the future by reconstructing the images of the futures in different discourses, cultures and organisations. Main outputs of interpretivist SGF are thus systemic visions, i.e. culturally self-aware interpretations of the future that discern how future is framed in various systems, contexts, discourses, cultures etc. The interpretivist SGF increases the capacity of policy analysts to meet the epistemological needs of policy analysis for governance for SD. For example, by subjectivising the future, it allows policy analysts to help policymakers to see the limits of their own futures thinking and to promote their reflexive learning. Moreover, interpretivist SGF forces policymakers not to dismiss alternative futures deriving from other discourses and cultures (e.g., different operationalisations of the SD concept etc.). Addressing different alternative social causes, it allows policy analysts to support policymakers at creating inclusive governance for SD that is resilient to deep societal change.

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<sup>21</sup> Inayatullah, 1999; 2001.

<sup>22</sup> Von Foerster, 1979.

<sup>23</sup> Gordon / Glenn / Jakil, 2005.

Similar to interpretivist SGF, *critical SGF* speaks from the epistemological position that the real is socially constructed. However, it aims at relativising the future by deconstructing how different regimes of truth define the ways to frame and language the future. Committed to analysis of power, it attempts to make the real political and historicise it. The main outputs of critical SGF are alternative worldview visions that uncover the regimes of truth, which define the way we see, speak and language the future. They depict how alternative worldviews constitute futures, i.e. how they are complicit to framing futures and how they legitimise the deeper social, linguistic and cultural structures. By evoking alternative futures, in which rationality, mind and order are differently constructed, the critical SGF allows policy analysts to examine how discourses influence policymakers' framings of the future, how alternative possibilities of the future became the sole ways of describing something and how current language and categories continue to reinscribe the power politics in the present and in the future. Critical epistemology represents a highly promising reference frame for meeting the epistemological needs of policy analysis for SD. In particular, it allows policy analysts to account for the pluralist and discursive nature of SD concept.

## **7. Research Methodological Heuristic for Sustainability Governance Foresight**

In order to provide quality SGF, the policy analysts nevertheless need to critically reflect and adapt their own methodological approaches to choosing and using FRM in a way that is sensitive to the epistemological needs of policy analysis for governance for SD. They have to rethink and adapt their research methodological approaches and their professional role in the empirical research practice at six levels proposed to better understand how SD concept challenges the existing research frontiers.

In order to conduct SGF that empirically accounts for the epistemological needs, mainstream policy analysts first need to emancipate themselves from the operationalised research design based on the ex-ante hypotheses. Instead they should become *critical explorers* who choose and use FRM according to flexible and opened research design that enables them to continuously adapt the research focus and inquiry on the basis of the new insights about the research object.

Second, mainstream policy analysts should act as *discoverers of frame conflicts* who use FRM to detect conflicts in framing of policy issues in order to exercise quality SGF. Thus they should distance themselves from using FRM in a way that is ignorant toward interpretative judgements. Instead, they should use them in a way that allows to reconstruct frames as normative-prescriptive stories that shape different understandings which set out policy problems, courses of action and basis for persuasion.

Third, mainstream policy analysts need to distance themselves from using FRM in a way that disregards the discursive practices and hidden forms of communicative power behind them. Instead, they ought to become *translators across discourses* who translate the knowledge from one community to another by developing refined frames. Thus they should choose and use FRM to account for the complexity of framings, and to clarify the multiple meanings and understanding of policy issues in a way that policymakers are able to choose a set of efficacious and just governance solutions that promote SD.



Fourth, so as to conduct quality SGF that is responsive to the epistemological needs of policy analysis for governance for SD, mainstream policy analysts should distance themselves from the hierarchic notion of their relationship with citizenry and become *facilitators of citizen deliberation*. They should choose and use FRM to bring to the fore the grass roots knowledge and to empower the citizenry to participate in intelligent and egalitarian way in deliberations of public affairs.

Fifth, in order to promote the search for deviating futures alternatives and new forms of knowledge, mainstream policy analysts need to emancipate themselves from conducting Foresight on the basis of the regularity principle. Instead, they should become *honest brokers* who choose and use FRM in a way that allows them to deconstruct and challenge the routinized ways of political thinking about futures and detect the signs of breaks and destabilisations as inherent features of societal development.

Nevertheless, mainstream policy analysts need to distance themselves from the research design based on the causality principle and to become *transdisciplinary knowledge agents* who integrate specialised knowledge from different discourses, and equalise information among different actors. When exercising SGF, policy analysts should thus choose and use FRM to promote transdisciplinary knowledge management, i.e., the integration of different descriptive levels of disciplinary, sectoral and other social discourses.

## **8. Conclusions**

In order to bridge the knowledge gap between policy analysis and EU governance for SD, policy analysts need to severely refocus their research priorities and reorient themselves towards new research frontiers. Though FRM and Foresight are perceived as promising means to tackle this challenge, their applicative potential largely depends from the ability of policy analysts to orientate and adjust their choice and use to two factors: to the cognitive barriers of policymakers in terms of framing governance in the SD perspective and to the resulting theoretical, epistemological and research methodological requirements of policy analysis for governance for SD.

In order to support such reflexivity and self-control of policy analysts, the paper proposes a comprehensive frame for SGF. It comprises the typology of cognitive barriers of policymakers in terms of perceiving governance through the sustainability lens, the typology of shortcomings of mainstream theoretical approaches to policy analysis for governance for SD, the paradigmatic typology of FRM, the typology of epistemologies, and the research methodological heuristic for SGF. All in all, this frame should help policy analysts to exercise SGF that meets all three central epistemological needs of policy analysis for governance for SD: the need to observe the discursive nature of policymaking to help policymakers to account for heterogeneous interpretative nature of the SD concept, the need to account for the processes by which policymakers acquire knowledge in order to support them at making a sustainability shift in their political thinking, and the need to tackle the deeply uncertain nature of global change to help policymakers account for it in the SD perspective.

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