

(Janus et al. 2015) these might help to adjust science policy to objectives of *mutual* benefit for global sustainable development.

1.4 Analytical structure and outline of the chapters

This book is structured in the following way: After this introduction, a *literature review* (ch. 2) gives an overview about different conceptualisations of science, science policy and potential effects on society. Different conceptions of discursive elements such as *science*, *innovation*, *policy*, *sustainable development* as well as their interrelation are in the spotlight of the chapter. I show that multiple conceptions of the relation between science and society exist. Potentially, science policy could be aimed at any conceivable scientific, technological or societal goals. Its implemented form therefore displays underlying social norms, choices and values. Acknowledging the potential openness of goals opens up room for investigating why a certain view dominates current German science policy.

In chapter 3, I introduce the Sociology of Knowledge Approach to Discourse (SKAD) as the *conceptual basis* of my research. The chapter exposes different approaches to the analysis of policy processes and exhibits why a theoretical framework based on the discursive construction of knowledge is an adequate approach to the analysis of German science policy for cooperation with developing countries and emerging economies.

Chapter 4 then situates my research in the corresponding *methodological context*. In choosing the perspective of SKAD, my research is embedded in a constructivist perspective. Following, I make use of qualitative social research methods for obtaining empirical data, including semi-structured interviews, participant observation as well as the analysis of policy documents. The chapter informs about data collection as well as methods of analysis. Also, I reflect about my own positionality as a researcher as well as the people whose statements build the corpus of data.

The empirical chapters of the book answer research questions around the research subject of the BMBF's science policy for cooperation with developing countries and emerging economies, firmly based on the theoretical, conceptual and methodological considerations exposed in the previous chapters. Chapter 5 provides necessary *background information* to understand why the BMBF as such, and especially its policies and funding in the area of sustainability, are relevant research subjects in view of cooperation with developing countries and emerging economies. In the first section, I give an overview of the different public actors who are involved in funding research in general within Germany, and more specifically those who fund science cooperation between Germany and developing countries and emerging economies. This helps to situate the BMBF's policies, research programmes and funding initiatives in the German context. The second section

of chapter 5 then deals with the policies, strategies and funding initiatives of the BMBF and shows the historically grown importance of research cooperation between Germany and developing countries and emerging economies especially in the field of environmental and sustainability sciences, which is reflected in BMBF policy and funding.

Chapter 6 centres on the interlinkages of structures and agency in *internal decision-making processes in the BMBF* which lead to a specific policy discourse. I show that institutional structures, rules, norms, as well as previous discourse cast into strategies and programmes play a role in shaping the specific discourse on research cooperation with developing countries and emerging economies. These structural elements make up a dispositive, which enhances discursive stability. Nevertheless, it still leaves spaces of agency for the individual actors within the BMBF to influence policies for research cooperation with developing countries and emerging economies in the field of sustainability research.

As policies are not created exclusively within the boundaries of the individual BMBF working unit or (sub-)department, chapter 7 considers the *roles of different external actors* in shaping the policy discourse. Next to experts of different types, the project management agencies are important contributors to policy discourse. In addition, interaction occurs with actors from other policy fields, both within and outside of the BMBF. The chapter thus examines why the BMBF admits certain actors into the discourse coalition on science policy, while the gates are kept shut for others. Hence, the chapter highlights whose knowledge is deemed as relevant and valid for policy, and whose is not. In addition, I expose through which mechanisms and in which processes external knowledge is integrated into the policy discourse or actively excluded.

I then turn to the *contents of policy discourse* for research cooperation with developing countries and emerging economies in sustainability research. In SKAD, discourse is considered as “concrete and material” (Keller 2011c: 48). In view of the analysis of policy contents in chapters 8 and 9, this means that I base the analysis on different types of manifest discursive statements in texts and speech, including statements in policy strategies, such as the High-Tech Strategy (BMBF 2006; 2010c; 2014), Internationalisation Strategy (BMBF 2008a; 2016b), or FONA (BMBF 2005a; 2009a; 2015e) as well statements from interviews with BMBF staff and from the BMBF’s website.

Chapter 8 focuses on the *heart* of the BMBF’s policy – its *core discourse*, or *leit-motif* that coins and frames all further BMBF policies, and which consists in the concept of *prosperity through science*. *Sustainability* is a further concept used in BMBF discourse, which provides an additional frame to policies – as strategies, funding initiatives as well as interview statements – as instances of discursive events – document. I reveal the development of the discursive policy orientation towards economic innovation on the one hand, and sustainable development on the other, and

expose the current discursive usage in the BMBF's policy discourse. The final part of chapter 8 is then dedicated to the BMBF's specific policy discourse for cooperation with developing countries and emerging economies – and how the overarching leitmotifs of prosperity through economy-oriented innovation and sustainable development influence the specific subdiscourse. I show which concepts the BMBF employs as rationale for funding research cooperation with developing countries and emerging economies in sustainability research, which specific aims the BMBF pursues in doing so and how these are embedded in the core discourse.

Chapter 9 is dedicated to *two exemplary BMBF funding initiatives* for cooperation with developing countries and emerging economies in sustainability research: the IWRM funding initiative and the Megacities funding initiative (BMBF 2004a; 2004b). I reconstruct the concrete objectives of the specific policy discourse – as instances of transmitting more abstract policy discourse into more concrete effects. While the IWRM funding initiative serves as an example of an economy-oriented rationale congruent to the BMBF's core discourse, the Megacities Initiative illustrates how policy makers may use spaces of agency to deviate from the main story-line and pursue objectives beyond German economic benefits. The chapter also exposes capacity development, transdisciplinarity and cooperation on eyelevel as concepts of the policy discourse which are closely related to the policy expectation of creating impacts.

After focussing on actors and contents of the discourse within German science policy for cooperation with developing countries, chapter 10 as last empirical chapter analyzes the *discourse effects*. In a first part, the dispositive used to establish and maintain a specific discourse is exposed. In the case of science policy for research cooperation with developing countries and emerging economies, the dispositive aimed at discourse effects consists of those institutional structures and practices that transmit the objectives of policy to the project level. For example, splitting funding phases into short time contracts, can be seen as a way to exercise power over the policy discourse's effects by maintaining control over resources – as a means of preventing projects to adapt policy objectives (and thus to actualize or reinterpret discourse) in the process of project implementation. In a second part of the chapter, the effects of the policy discourse as such are illuminated. I analyze how the specific orientation of policy coins the projects, how they translate this orientation into their practice and how policy discourse thereby exerts influence on the local realities of the research projects. In pointing at the policy effects, I also consider the spaces of agency that projects use to re-interpret policy, thus, to modify discourse.

Last, the conclusive chapter 11 is dedicated to a summary of the factors of *discourse stability and discourse change* as well as the *dominance of the current core discourse* of science policy as result of the various influences exposed through this book. In addition, the chapter provides a concluding analysis of the BMBF funding initia-

tives on the normative backdrop of *global sustainable development* and gives corresponding *policy recommendations* for future funding initiatives aimed at research cooperation with developing countries and emerging economies.