science policy presented here reveals some critical issues in view of global sustainable development. Representations in research, as in this book, often compete with official, authorized representations of the informants and their organisations. On this background, it is important to point towards the power dynamics during research. The empirical research I carried out for this analysis was coined by a situation of *studying up*, thus researching among actors in higher levels of power and status. In order to the avoid risk of censorship and to maintain the interpretative authority over the contents, interview statements were anonymized instead of requesting authorized statements from interviewees (ch. 4).

At the same time, in being critical of the general BMBF discourse, I do not intend to discourage those actors within the BMBF who initiated novel approaches to encompassing sustainability research (ch. 9); project participants who used their room for agency to extend their projects' scope in order to redirect them to more sustainable pathways (ch. 10); or external experts who publicly and critically discuss the direction of current science policy (Box 7-1). The conclusive chapter provides recommendations for these actors (ch. 11).

1.3 Contributions to scientific literature

Science policy, the processes of its production as well as its aims are researched from various social science perspectives. My investigation of sustainable development as a concept of German science policy, especially as a frame for cooperation with developing countries and emerging economies, therefore potentially enriches various disciplines. For scholars in science and technology studies, for example, one of the central research subjects in science policy research is on which basis policy decisions are made (Bozeman and Sarewitz 2011). Further knowledge gaps exist in view of the relation of science, science policy and societal benefits. While economic impacts of science are researched extensively, the effects of science and science policy on other social spheres have been less investigated (Miller and Neff 2013). From a sustainability and development research perspective, the relation between policy, science and sustainable development is equally pointed out as a knowledge gap, next to the effects of research cooperation (Maselli et al. 2006; Stamm 2008; Mohan and Yanacopulos 2007).

The research presented here aims to add to the existing literature on both a conceptual as well as an applied level. In applying SKAD to a policy setting, the approach is conceptually reflected and further refined. To suit the specific setting of policy making, I combine SKAD with constructivist approaches to policy processes. I consider policies as a specific type of discourse with specific rules and practices of (re)production. The practices of creating policy discourse include different planes of policy making from designing new strategies and programmes, issuing calls for

proposals, to funding research projects. Viewing policy as discourse enables me to expose the interconnections between ideas and structures in policy. In doing so, it has been useful to scrutinize the relation of stabilizing structures and practices – the discursive *dispositive* – and the spaces for agency through which actors maintain, renew, change or contest a policy discourse in the practices of policy production from decisions on topics and cooperation countries to policy implementation in funded activities.

Next to reflections on the theoretical groundings of SKAD, research also offers empirically grounded insights into processes of policy making and the consequences for the discursive contents. I demonstrate that the general discourse of German science policy, centred around the idea of fostering science for German economic prosperity, influences the concept of sustainability in science policy substantially. In consequence, funding initiatives for cooperation with developing countries and emerging economies in sustainability-related research are not aimed at global sustainability. Sustainable development rather turns into a legitimizing narrative for securing German prosperity through promoting technological, economically-viable solutions. In doing so, the concept of sustainability is narrowed and depoliticized. I argue that this has consequences for the type of knowledge produced within the German science system. In most funding initiatives empirically scrutinized, the BMBF attributed a minor role to the social sciences. As part of technology-oriented projects, the social sciences were reduced to accompanying technology implementation. However, if the BMBF, as one of the main funding institutions of applied research, neglects the larger social, cultural and essentially political aspects of sustainable development, it weakens the capacities of science to critically reflect. This means that the BMBF does not enable the German science system to adequately deal with sustainability challenges in the long run.

In the case of the BMBF's science policy for sustainable development that I empirically investigated, several factors contributed to a high degree of stability of the policy discourse. Institutional structures (such as organisational shape and bureaucratic rules), redundancies in policy processes and practices of discourse actualisation as well as the BMBF's position to exclude alternative discourse made the continuation of ideas more likely than discourse change. External discourses as well as individual agency played an important role in instances of discourse actualisation leading to change. In pointing at the spaces of agency within science policy processes, I wish to contribute to the field of literature on processes of change for sustainability (Smith et al. 2010; WBGU 2011; Wiek et al. 2012; Göpel 2016).

A last contribution targets the preconditions of research for sustainable development on several levels. The empirical insights allow an abstraction in view of recommendations aimed at research projects, the BMBF as well as at interministerial cooperation. In the context of scholarly debates on new types of cooperation

(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