lowing chapters). A few years have gone by since I conducted empirical research (in 2012-2014). Since then, both the IWRM as well as Megacities funding initiatives have come to an end. Some funding initiatives, such as CLIENT, have issued new rounds of calls for proposals – CLIENT II, in 2015 (BMBF 2015i, 2017). As a follow up for the ending projects within the Megacities funding initiative, the BMBF initiated the Rapid Planning project within the Megacities funding initiative's frame (BMBF 2018).

The ministry itself has undergone some changes, as well. Its organisational structure has been slightly rearranged (ch. 5). At the time of research, the subdepartment in charge of international cooperation in sustainability research was the *Subdepartment for Sustainability, Climate, Energy*. In the new organisational shape, it is now the *Subdepartment Sustainability, Provision for the Future.* The subdepartment's working units have been slightly reorganized, as well. New units, such as on *Systemic Mobility, City of the Future* have been established; previous units have extended their responsibilities, such as the Unit for *Resources, Circular Economy, Geosciences* (BMBF 2019b). Additionally, the *individuals* working within the BMBF, in projects and as experts have continued their paths through life. While some of the people interviewed have changed to different working positions, others have retired, new people have entered.

On the one hand, the developments show that changes in policy are happening, even though policy seems to be characterized by high discursive stability (ch. 6, 8, 11). On the other hand and nevertheless, I argue that my findings in view of the general orientation of science policy for cooperation with developing countries and emerging economies continue to be pertinent: Recent documents on policies for international cooperation document that the main political mindset remains without essential changes (see: BMBF 2017). I therefore argue that my findings reflect insights on the policy processes and policy discourse within the Sustainability Subdepartment's funding initiatives for cooperation with developing countries and emerging economies.

1.2 Sustainable development as normative background

Based on the view that science policy is inherently normative, I argue that *global sustainable development* would be a legitimate objective for German science policy targeting cooperation with developing countries and emerging economies. In fact, sustainable development (or the BMBF's interpretation thereof) has already turned into an explicit frame of reference for BMBF funding in the area of sustainability research. I am thus specifically interested in investigating and exposing in which way the concept of sustainable development is constructed in the BMBF's policies for international cooperation.

At the same time, I resort to *sustainable development* as a normative basis. I argue that in its current interpretation of sustainability as a concept of predominantly environmental problems to be solved by economy-driven, technological solutions, the BMBF does not adequately enable the German science system to fulfil its role in preventing, mitigating and coping with global challenges such as climate change.

Using sustainable development as a normative lens on science policy does not seem farfetched: Environmental challenges on the global level, such as climate change, as well as on the local level, such as unsustainable management of resources, become more and more pressing and affect developing countries as well as all other countries alike, and scientific concern with sustainability is ongoing. Research shows that *planetary boundaries* and a *safe operating space* – which can neither be negotiated nor extended – have to be maintained to prevent severe consequences for the planet (Rockström et al. 2009), while ensuring a socially just space for humanity (Raworth 2012). This will require substantial transformations within *all* societies (WBGU 2011). In addition, striving for global equality is presented as an *ethical* obligation of people in a world habited by a *common humanity*, while at the same time, global sustainable development – as collective benefit – is also a matter of *self-interest* on a planet with limited ecological boundaries and resources (Hulme 2016). Based on this insight, the Agenda 2030 and its Sustainable Development Goals (SDGs) have been internationally adopted as a political frame of reference by the UN states in 2015 (UN 2015). Indeed, in view of sustainable development, not developing countries, but high income-countries lag behind in view of most environmental targets, such as regarding SDG12 on responsible consumption and production, or SDG 13 on climate action (Sachs et al. 2017). Perceiving sustainable development as a *global* challenge and a *global* responsibility therefore shifts the emphasis of previous development agendas.

In parallel to the ongoing ecological concerns, global social and economic changes occur. In recent years, previous economic and social divides between *developed* and *developing* countries increasingly blur and new constellations between former donors and recipients of development cooperation emerge. This has led to discussions around the future of development cooperation in a Beyond Aid debate (Janus et al. 2015; Horner and Hulme 2017). Taking global development, as expressed in the SDGs, seriously as a new development paradigm requires substantial changes of national policies from national interests towards global sustainability and wellbeing (Hulme 2016; Horner and Hulme 2017). On this background, other forms of cooperation between developed countries and developing countries or emerging economies are worth scientific scrutiny. Research cooperation between Germany and developing countries and emerging economies presents such a case.

Two remarks seem necessary in view of taking over a critical perspective based on the normative standpoint of sustainable development. The analysis of German

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