PhD Project: Participation in sustainability research: a critical examination at the science-society interface (working title)

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Motivation: In the area of (un)sustainable development, malfunctioning feedback between science and political and societal action has become manifest. In response, voices have been emerging over the past three decades claiming that discipline-centred knowledge production within the exclusive realms of science is not apt for solving complex problems and needs to be complemented by more entangled ways of producing 'socially robust' knowledge. Within sustainability research, transdisciplinarity (TD), which aims at the inclusion of non-scientific actors and their expertise in knowledge production processes, has emerged as a key notion. This concept has also entered science policy and research funding schemes.

The increasingly widespread call for a transgression of science-society boundaries in search for sustainable futures notwithstanding, fairly little is known about the participatory dynamics unfolding when scientific and non-scientific actors meet in sustainability research. While in TD literature, the notion of participation is widely positively connoted and associated with democratic values, empowerment of the actors involved and a higher probability of research-induced societal change, conceptual fuzziness prevails and poses challenges to those applying participatory TD approaches. Linear, one-dimensional models and typologies of participation dominate. The latter imply a "the more participation, the better" logic emblematically illustrated by the metaphor of ladders, the rungs of which represent the degrees of involvement. Accounts of the multiple factors that drive and constrain the ways in which researchers, civil society actors, political decision-makers or entrepreneurs – i.e. actors with distinct forms of expertise - jointly define concerns and (co-)produce knowledge is scant and scattered over various academic fields (including development studies, science and technology studies, sustainability research).

Goals: Thus, this PhD project aims at uncovering the interplay of structural, institutional and actor-based factors in participation processes in sustainability research and at understanding the ways in which these shape the interaction of scientific and non-scientific actors. The ultimate goal is to develop and apply a multidimensional 'participation framework' for conceiving and critically analysing participation processes in sustainability research.

Approach: Firstly, by means of a literature review (desk research) this PhD project traces participation discourses in the largely parallel fields of sustainability research, development research and science and technology studies, analyses core tenets of these discourses along a matrix encompassing elements such as goals, actors, formats of participation, and identifies participation-related factors. Secondly, these participation-related factors are revised and complemented by empirical findings from comparative case study analyses of sustainability-oriented participatory research projects. Based on content analysis of project documents, semi-structured interviews and surveys among scientific and non-scientific actors involved in the case studies, a preliminary 'participation framework' will be set up. The case studies are selected from a major research funding programme of the Ministry of Research and Culture (MWK) of the State of Lower Saxony (GE) and the Volkswagen Foundation. Thirdly, relying on group discussions with key actor groups and analysis of project documentation, this preliminary framework will be tested and further developed by applying it to a research project outside of the VW/MWK funding track.

Expected results: The above noted approaches result in developing and testing a “participation framework”. This multidimensional framework will inter alia take into account how power (im)balances, values and expectations, and the institutional embedding of the actors affect participatory dynamics in research. The results are expected to feed into academic discourses on (theorizing) participation, TD, public engagement in science and development, transformative science. The findings will be of practical relevance to different groups of actors engaged in participatory research processes from funding to implementation.