

# Participatory research methods for sustainability



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Participatory methods in sustainability research have gained substantial traction in the last decades, triggered by a growing recognition of the benefits of integrating different bodies of knowledge to co-create solutions.<sup>1</sup> Participatory methods catalyze consensus through collaboration and empowerment. They imply a shift from individual-based instrumental values to community-based interests and are driven by empathic and ethical motivations.<sup>2</sup> Knowledge co-creation and integration improve the scope and quality of environmental data, leading to better scientific understanding and fostering social inclusion and stewardship. We now find participatory methods in a significant proportion of research projects in sustainability sciences, often at the explicit request of funding bodies and institutions that call for inter- and transdisciplinary science.

With many different participatory methods on the rise, it gets more and more important to gain an overview of what is possible and meaningful for its application in any given setting. What specific method is the most appropriate, and how it is applied depends on the specific purpose, resources and social-ecological context of a study. Participatory methods can be used across the whole project, from the initial moments of defining the research objectives to the final phases of implementation of results, or it can be limited to specific phases. Who participates and how these people participate can greatly vary and shift in the course of the research project, spanning from passive observation to active engagement. Perhaps contrary to intuition, the highest level of engagement of participants is not always the best pathway. At the same time, a method can be applied at different phases of a research project for different purposes. For example, participatory mapping (the first method presented in this toolkit series) can first serve to collect inputs from a large number of participants in a quantitative format to identify hotspots of potential conflicts within a landscape, then be applied in a workshop setting to discuss solutions in a deliberative process, and finally be used to assess the project outcomes through a citizen-based participatory monitoring process.<sup>3</sup>

There is no blueprint for the use of any participatory method. The diversity of contexts in which participatory research is applied requires adaptability and creativity. With that spirit, we take up the format of “toolkits” originally introduced to GAIA through Gabriele Bammer’s *Toolkits for Transdisciplinarity*<sup>4</sup>, to highlight a broad range of participatory methods for sustainability research over the next eight to ten issues of this journal. Our toolkit series aims to provide an overview of key innovative participatory methods in sustainability research, illustrated with exemplary case studies. We particularly aim to enhance knowledge on how participatory methods can be combined and embedded in sustainability science settings.

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