ABSTRACT

By integrating social, ecological, and economic perspectives, the assessment of ecosystem services (ES) provides valuable information for better targeting landscape planning and governance. This chapter summarizes different participatory approaches for assessing ES in urban areas of three countries. In Belo Horizonte (Brazil), a conceptual framework for the vacant lots ES assessment is presented as an attempt to integrate landscape, social, and political dimensions. In Leipzig (Germany), a combination of site surveys, interviews, and remote sensing provides a valuable data set that fostered a comparative study between two forms of urban gardening. In Lisbon (Portugal), the study is based on interviews that offer a social insight into the horticultural parks situation, which in turn demands a better dialogue with the municipality. In general, the studies demonstrate the potential benefits of utilizing the ES assessment approaches on urban landscapes, especially for better understanding the interactions between people and nature in urban sites.
INTRODUCTION

There is a growing recognition that the assessment of the Ecosystem Services (ES) can provide valuable information for better targeting landscape planning and governance, especially for shaping innovative adaptation strategies in the context of global environmental change (Brendan, Costanza, Turner, & Morling, 2007; de Groot, Alkemade, Braat, Hein, & Willemen, 2010; Gómez-Baggethun et al., 2013). Many authors agree that the concept of ES (designated as the benefits people obtain from nature) is currently widespread and accepted, providing a useful framework that aggregates social, ecological, and economic perspectives (Burkhard, Petrosillo, & Costanza, 2010; Gómez-Baggethun et al., 2013; Koschke, Fürst, Frank, & Makeschin, 2012; Millenium Ecosystem Assessment [MEA], 2005; Primmer et al., 2015).

Although ES offer valuable insights concerning the human and nature connections and dependencies, the concept has however remained away from the political applications (Burkhard et al., 2010). In this sense, empirical applications and tools are required for the development and improvement of the ES concept and its insertion in the decision-making process (Burkhard & Müller, 2015).

Over the past decades the assessments of ES have been favoring the biophysical and economic aspects, leaving aside the social dimension formed by the services beneficiaries and the institutions (Martín-López, Gómez-Baggethun, Garcia-Llorente, & Montes, 2014; Primmer et al., 2015). The biophysical approach involves the ecosystem services supply and demand, and it is influenced by Land Use and Land Cover (LULC) structures and processes, which change in space and time (Burkhard & Müller, 2015). The economic view comprises the monetary valuation of services varying from local to regional and global scales (de Groot et al., 2012).

More recently, the accumulated knowledge in the field has raised the need for integration, which enables the overcoming of the limitations through the incorporation of applied methods and tools to bring ES assessments closer to the political and decision-making agendas. One avenue for moving forward in the decision-making process is the insertion of the socio-cultural dimension through the utilization of participatory approaches (Bixler, Dell’Angelo, Mfune, & Rob, 2015). Participatory approaches are based on interactivity and include social interaction, mutual learning, and communication (de Montis, 2007).

In this context, attempts have been made focused on the use of participatory approaches for broadening the traditional biophysical ecosystem services perspective into a set of social and political processes (Haines-Young & Potschin, 2014; Martín-López et al., 2014; Turnpenny, Russel, & Jordan, 2014). Among the tools and methods utilized, it is possible to highlight the social surveys and interviews organized for collecting data on ecosystem services, concerning the mode in which multiple users or beneficiaries acknowledge ecosystem’s capacity to deliver services and the economic value attached to it (Martín-López et al., 2012; Martín-López et al., 2014; Haines-Young & Potschin, 2014).

For urban areas, there is a set of studies evaluating ES that have used participatory approaches. Participatory ES assessment often focuses on social processes and governance, working with city actors that interacts with urban ecosystems (Ernston, Barthel, Anderson, & Borgström, 2010). In this context, vacant lots in the cities, allotments, and community gardens are types of landscape components that provide important ecosystem services to urban communities, such as local climate and water regulation, as well as habitat provision for biodiversity. However, the ways urban dwellers perceive ES need further attention.

In this chapter, it is explored how different participatory processes have been developed in the distinct socio-cultural contexts of three countries (Brazil, Germany, and Portugal), through the ES assessment