METHOD FACTSHEET

Narrative assessment of ecosystem services

Introduction

Narrative methods aim to understand and describe the importance of nature and its benefits to people with their own words. By using narrative methods we allow the research participants (residents of a certain place, users of a certain resource, or stakeholders of an issue) to articulate the plural and heterogeneous values of ecosystem services through their own stories and direct actions (both verbally and visually). Narrative methods usually collect qualitative data from individuals, but they can be also suitable to measure some aspects of human-nature relations in quantitative or semi-quantitative terms. They can be combined with more structured methods (both non-monetary and monetary ones) such as preference assessment, time use study, choice experiment or multi-criteria decision analysis (MCDA). In this guide we use the term 'narrative methods' as an umbrella term under which several tools from ethnographic, historical and qualitative social scientific research are brought together (e.g. in-depth and semi structured interview, observation, voice and video recording of events, artistic expression).

Keywords

Interview; Observation; Ethnography; Ethnoecology; Oral history; Qualitative analysis.

Why would I chose this approach?

Narrative methods do not constrain research participants to valuing nature within one dominant frame (i.e. the frame of ecosystem services which understands nature as the provider of goods and services) but allows them to articulate their values freely, in accordance with their own worldviews (de Oliviera & Berkes 2014, Satterfield 2001). Therefore, narrative methods can improve understanding around why certain ecosystem services are important to people, can shed light on the bundled qualities of cultural and social values linked to ecosystem services, and can highlight hidden aspects of human-nature relationships (Klain et al. 2014, Gould et al. 2015).

These methods can be applied to any ecosystem services, but the key area where they are most frequently used is the assessment of cultural ecosystem services (CES). Narrative methods are also proposed to identify bundles of ecosystem services (both in the supply side and in the demand side, in terms of socio-cultural values).

Narrative methods are frequently applied to collect background information on actual land use patterns and the motivations and perceptions driving land use decisions of individuals, households or communities (de Oliviera & Berkes 2014). They can also be useful in highlighting gaps between scientific and local knowledge (Rodríguez et al. 2005, Kaplowitz and Hoehn 2001). Information collected through narrative methods can be feed into awareness raising campaigns but can also be used to inform priority setting processes or instrument designs as part of deliberative processes, suggested by some complex valuation studies (e.g. Pereira et al. 2005, Palomo et al. 2011). Narrative methods are suitable to apply at lower spatial scales (from property to municipality or to a region including several municipalities). The spatial boundaries should be well-defined and meaningful to the participants. Spatial resolution differs from method to method. If narrative valuation is combined with mapping, fine resolution can be achieved. Using

mainly verbal and visual expressions often implies coarse resolution of spatial data. In sum, narrative methods can perfectly complement local level hybrid and integrated assessments using multiple methods by collecting background information, understanding local perceptions and engaging stakeholders in the valuation process.

What are the main advantages of the approach?

- Makes it possible to include local and traditional knowledge in the process of valuation;
- The valuation process and its results are inclusive and accessible for a large variety of different stakeholders;
- Allows participants to articulate the values of ecosystem services in their own terms and worldviews;
- Allows the elicitation of plural and heterogeneous values ;
- Highlights the bundled qualities of ecosystem services.

What are the constraints/limitations of the approach?

- The process is often lengthy and may require significant inputs from scientists;
- The topic of the research or some of the prompts can be difficult to conceptualize by local resource users, avoiding scientific jargon is therefore crucial;
- Since the researcher is personally involved in the study, her/his presence can influence the outcomes;
- Uncertainty about the quality of answers exists, therefore triangulation of data sources and methods might be necessary;
- Produces lengthy textual outputs (descriptions, narratives) which are difficult to quantify and to generalize at larger spatial or social scales;
- Strong responsibility on the scientists' side to not 'overuse' the participants.

What types of value can the approach help me understand?

Narrative methods are highly appropriate to elicit sociocultural values, but not suitable for monetary values (especially use values). Narrative methods, however, are capable of providing contextualized and qualitative information on how different value dimensions (including ecological and economic) are interpreted and framed by individuals or local communities.

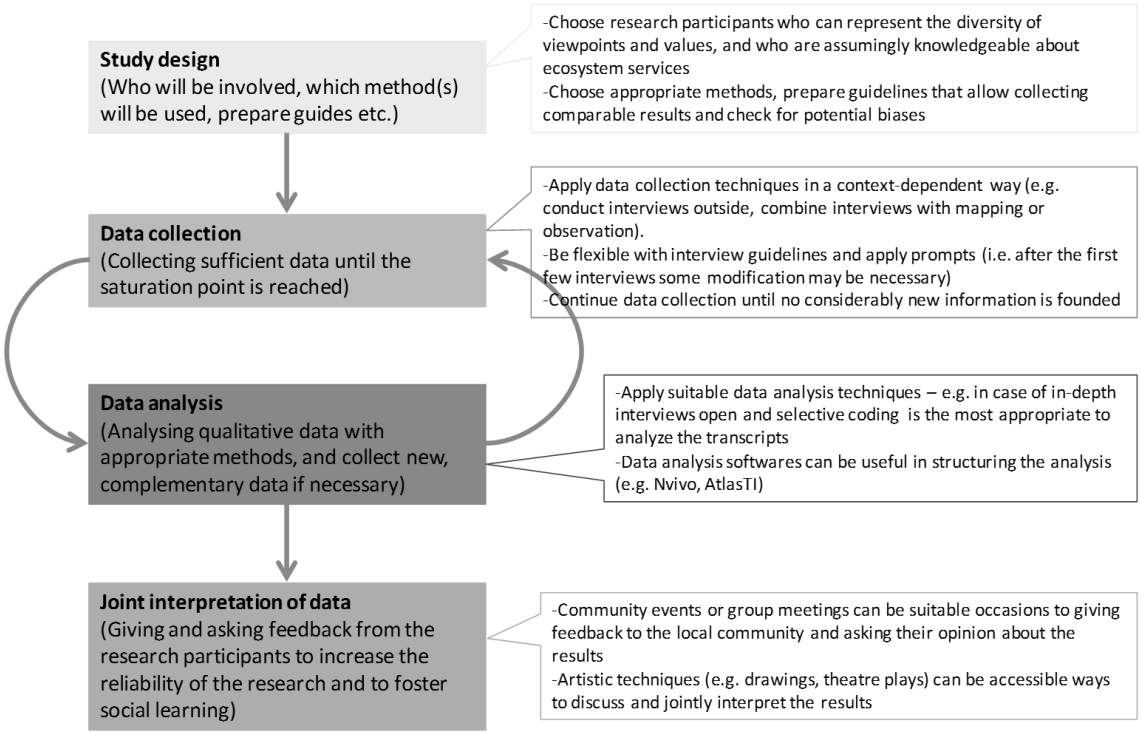
How does the approach address uncertainty?

Uncertainty can only be addressed in narrative ways (i.e. by asking the study participants about their opinion/experience about future uncertainties).

How do I apply the approach?

Narrative valuation involves various methods, such as observations, semi-structured or in-depth interviews, storytelling or drawing exercises, which all have their own logical sequence and which are well described in existing literature on qualitative social scientific methods. Hence we provide here a rather general, stepwise approach to illustrate how narrative methods can be applied to assess the values related to ecosystem services (Figure 1).

Figure 1. Key steps for narrative valuation.



Data collection and data analysis are usually iterative steps of the process, new data is collected if the analysis highlights knowledge gaps or controversies, until the saturation point is reached (i.e. newly collected data does not add significant new knowledge to the process). According to some empirical results, the saturation point for understanding the diverse conceptualization of values linked to ecosystem services is around 30 in-depth interviews within a local community (including one or a few settlements) (Gould et al. 2015).

Requirements

Requirements		Comments
Data	□ Data is available □ Need to collect some new data (e.g. participatory valuation) □ **Need to collect lots of new data (e.g. valuation based on surveys)**	Collecting new data through interviews, observations etc. is key for narrative methods.
Type of data	□ **Quantitative** □ **Qualitative**	Predominantly qualitative, but some quantifiable data can be collected.
Expertise and production of knowledge	□ Working with researchers within your own field □ Working with researchers from other fields □ **Working with non-academic stakeholders**	Information is collected from non-academic research participants. They can also be involved in interpreting the data.
Software	□ **Freely available** □ License required	Many narrative methods are low-tech by nature, but data analysis may require licensed software (e.g. Nvivo for qualitative analysis)

	□ Advanced software knowledge required	
Time resources	□ Short-term (less than 1 year) □ **Medium-term (1-2 years)** □ Long-term (more than 2 years)	Required time ranges from medium to long-term, also depending on the nature of the study (e.g. ethnographic studies are often longer than 2 years)
Economic resources	□ Low-demanding (less than 6 PMs) □ **Medium-demanding (6-12 PMs)** □ High-demanding (more than 12 PMs)	Medium to high-demanding, depending the exact nature of the method.
Other requirements	Social scientific and good communication skills are required, often the personal presence and participation of the researcher in local events is necessary to collect and interpret data.	

Where do I go for more information?

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