Sustainability of small-scale fisheries: How can we estimate it?

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Nowadays the concept of sustainability is widely known given its frequent use in many societal sectors. Fisheries policy is not an exception, and achieving the sustainability is a usual objective of the management plans. However, what does sustainability exactly mean? And how can we measure it? We carried out a systematic search in academic databases and Internet to identify how this concept is being interpreted and measured in different small-scale fisheries around the world. By means of a detailed analysis of 120 documents and several brainstorming sessions, we interpreted and classified the indicators of sustainability used in the literature into criteria, which in turn were classified into 4 dimensions of sustainability: ecological, social, economic and institutional. The nature of the article (conceptual/empirical), the type of fishery (multi-/mono-specific, pelagic/benthic), the country where it was developed, the scale of study (local, regional, national), and the availability of data (data-rich/-poor fisheries) were also compiled. Because sustainability is a multi-tiered concept, the analysis reveals confusion to decide the role of the attributes of the system, since they were used indifferently as indicators and as factors contributing to the outcomes. We also found gaps between the criteria of sustainability suggested by conceptual works and those ones studied by empirical research. Likewise, the criteria and indicators applied depended on the characteristics and the context where the fishery was developed. The main outcome is a comprehensive list of indicators useful as starting point to select appropriate indicators for the studied systems.

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