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Is Europe ready for a results-based approach to fisheries management? The voice of stakeholders

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ABSTRACT

The reformed Common Fisheries Policy (CFP), adopted by the European Union in 2013, aims to achieve sustainable exploitation of marine resources. Beyond the mainstream of stakeholders' engagement, the literature increasingly calls for shared accountability in fisheries management. In such scenarios, identifying stakeholders' insights becomes critical for a successful design of innovative management approaches. This paper analyses how the stakeholders perceive a results-based management system for four fisheries in different European sea-basins as well as at a pan-European level. The results indicate a need for adaptive and participatory management approaches, building on regional adaptations within transparent and plural frameworks for fisheries. To succeed, the system should explicitly address its associated public and private costs; neither participation nor accountability comes for free.

1. Introduction

Oceans and coastal areas provide valuable goods and services to the European economy [1–3]. The management of these marine ecosystems requires knowledge of both environmental and human dimensions, and how they are related. In natural resources management there is also an increasing recognition of the need to adopt an ecosystem-based approach, not least in relation to fisheries activities [4–8]. Recent policies, such as the reformed Common Fishery Policy (CFP) [9] or the Marine Strategy Framework Directive (MSFD) [10] enhance this holistic view of management, considering a more diverse use and users of European marine ecosystems. Building on European good governance principles [11], various stakeholders were brought in to contribute to the reform of the CFP through consultative processes. A public consultation on the former CFP [12], revealed that European stakeholders considered it to have a short-term focus, and top-down micro-management which constrained the decision-making process. The suggested alternatives showed different insights into: (i) the regionalization of fisheries policy at different scales (e.g. at regional sea level, within member state, etc.); (ii) the role of the stakeholders (e.g. advisory or implementing role); and (iii) the management system (e.g. participatory governance, co-management or self-management).

After 30 years of the CFP, its limitations in relation to biological, socio-economic and governance aspects have been well-documented [13–18]. Nevertheless, several authors have pointed out the need to overcome this pessimistic mantra of the CFP since some of the management decisions have been shown to be partly effective in the last decade [19]; as Cardinale et al. [20] state: "there are clear indications that actions already implemented under the CFP have led to an improvement in the status of many commercially important fish stocks towards levels that are capable of producing Maximum Sustainable Yield [MSY]".

However, a deep-seated drawback of the CFP is its tendency to produce a "death spiral of fisheries micro-management" [21] i.e. an incremental and mainly regulatory approach that relies on

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highly detailed control to address the shortcomings of the policy [22,23]. Moreover, regulations do not always suit local conditions, which in turn leads to a proliferation of amending regulations and derogations laid down by authorities in a classical top-down management fashion. The outcome is a management system that has become increasingly complex [24], difficult to understand for the users, and inefficient in achieving the CFP's goals. In particular, it constrains the fishing industry's ability to adapt to shifting conditions and to improve cost-efficiency through behavioral and technological change. Meanwhile, the involvement of stakeholders in fisheries management has been gaining momentum in the policy agenda: participatory research, stakeholder engagement [25], co-production of knowledge [8,26] or even co-creation [27] have all been directed towards improving the governance of European fisheries. According to Van Vliet et al. [28], the main reasons for undertaking participation are categorized as; (i) democratic principles to relate decisions and the values of the public; (ii) instrumental arguments; (iii) legitimization of the final decision, increasing stakeholders buy-in; (iv) the integration of local knowledge; and, (v) social learning which allows for the generation of useful insights.

Stakeholder analysis is becoming a crucial tool for developing innovative management approaches for fisheries management in embedded institutional settings such as the European Union, which has multiple layers and arenas of interaction. Stakeholder participation has been a central pillar of the CFP since as far back as 2002, although there has been no legal definition for this process. This is despite an extensive body of literature on the formal mechanisms for identifying, defining, analyzing and mapping stakeholders [29–34]. Evidence for the move from the active participation of stakeholders to constructive engagement through co-management is now considered a crucial element to achieving sustainable fisheries [35].

The question remains as to what extent EU stakeholders may be willing and ready to have such an active role in fisheries management. Recent consultative processes show that NGOs, some Member States, industry and the European Parliament generally support different degrees of co-management "under clear objectives and measurable targets" [12]. The European Commission [17] also suggested that:

> "The industry can be given more responsibility through self-management. Results-based management could be a move in this direction: instead of establishing rules about how to fish, the rules focus on the outcome and the more detailed implementation decisions would be left to the industry. Public authorities would set the limits within which the industry must operate, such as a maximum catch or maximum by-catch of young fish, and then give industry the authority to develop the best solutions economically and technically".

The notion of results-based management (RBM) has been used to guide reform processes within intergovernmental organisations [36,37], but to a lesser extent in the fisheries context [38–40]. This article is an output from a research project[1] that developed a framework for implementing RBM in European fisheries (named Responsive Fisheries Management System (RFMS)) and examined its feasibility. Consistent with the European Commission's ideas, the RFMS proposes that relevant authorities set specific and measurable objectives to be achieved, leaving resource users to propose ways to achieve them and to document their achievement. Additionally, the RFMS includes guidelines for authorities and resource users that wish to pursue a RBM process [41]. Critical elements in this process include the setting of operational objectives [42–44] and incentive mechanisms, the identification of means to meet the requirements, and the development of a strategy for documenting the effectiveness of the means. In this sense, the RFMS allows the resource users to focus on how defined objectives can be implemented, instead of a policy that regulates in detail what they may, should or should not do in their day-to-day operations (adapted to fisheries from [45]). The RFMS assigned clear roles for three involved agents:

i. The Authority, which proposes management and operational objectives, and establishes a framework in which stakeholders can assume management responsibilities.
ii. The Operator, who develops a management plan, undertakes fishing operations according to the pre-set objectives, and provides proof of achieving these objectives through a documentation system.
iii. The Auditor, who conducts systematic assessments of the implementation and performance of the management plan, focusing on whether or not objectives have been met.

While there is limited practical experience with RBM in European fisheries, existing management arrangements for the Rock Lobsters in New Zealand reflect a quite comprehensive example of the approach [46]. Another practical example of RFMS is an ongoing project[2] developed in the Algarve (South Portugal) that defines the management measures considered relevant for an octopus fishery, promoting participative monthly meetings with stakeholders involved (fishermen's associations, universities, national fisheries institute and governmental bodies). By using capacity building, operators will be prepared for designing, proposing and implementing an RFMS for the management of the octopus trap and pot fishery of the Algarve. Apart from the pilot tests pursued within the research project that this work contributes to, neither RBM, nor the more detailed RFMS, has currently been used as an approach for delegating practical management responsibility to resource users in fisheries [47]. However, cases that apply the RBM's principles can be founded in the Clayoquot Sound (Canada) in relation to the land and resource management [48]; in the Island of Guernsey (UK) for developing sustainability indicators [48]; in Ria Formosa (Portugal) in a coastal management program [49]; in Chile in relation to the co-management of small-scale octopus fisheries [50]; on the island of Mallorca (Spain) for managing coastal zone fisheries [51]; in Galicia (NW Spain) in the development of community-based management for goose barnacle fisheries [52]; in the New Zealand southern scallop fishery [53]; or in the Southern Australian Spencer Gulf prawn fishery [54].

This study applies a triangulation of methods to analyze stakeholders' insights into alternative management systems for European fisheries with a focus on an RFMS system. The concept of "stakeholder" in fisheries and the methodological approach to obtain their perceptions is defined in Section 2. Section 3 examines the results of four International workshops and a survey at European level, as well as the applicability of a results-based approach in Iceland, Portugal, North Sea and Mediterranean. Finally, the feasibility of implementing this approach to manage European Union fisheries is discussed.

2. Methods

Public administrations, fishing organizations and associations, advisory agencies, environmental Non-Governmental Organizations (NGOs) and other key actors were brought together to evaluate

[1] www.ecofishman.com

[2] "Tertúlia do Polvo" project, coordinated by the Centre of Marine Sciences of the University of the Algarve (May 2014 to March 2015). Press release (in Portuguese). http://www.ccmar.ualg.pt/ (last visited 20.01.15).