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The preferences of the Spanish fishermen and their contribution on reform of the European Common Fisheries Policy

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ABSTRACT

The latest reform of the Common Fisheries Policy introduces market instruments to manage European fisheries. The success of any regulatory measure requires compliance with and acceptance of standards on the part of the regulatory bodies. This is the second proposal made by the European Commission which poses this possibility; the previous reform agreed by European Parliament in 2002 removed it due to the opposition from fishermen in some countries, among them were most of Spanish fishers. But perhaps the fishermen's preferences changed for these years. This study analyses Spanish fishermen's preferences of the possibility of introducing fishing rights, and an international comparison of fishermen's preferences is made. The results show that the industrial segments are more favourable to implement a system based on quotas, whereas the artisanal segments are more in favour of an individual effort system. The greatest similarities are obtained in Iceland and Australia, although the results achieved are based more on qualitative than quantitative analysis.

1. Introduction

The European Commission (EC) initiated a new reform of the Common Fisheries Policy (CFP) via a Green Paper (European Commission, 2009) and the approval of the proposal relating to the CFP (COM (2011) 425, 13 July 2011); and the European Parliament (EP) adopted the CFP reform in February 2013. The new policy, which came into effect in 2014, follows the trend of its predecessors, placing greater emphasis on the environmental aspect, its main objective being to ensure a level of marine resource exploitation that makes it possible to maintain fish populations above the corresponding maximum sustainable yield in the year 2020. Perhaps the most important of the measures adopted in order to achieve this objective is the establishment of market instruments (either with regard to quotas or fishing effort). The EC already included this measure in the previous proposal (COM (2001) 135, 20 March 2001); however fishermen from several countries, mainly from France and Spain, were opposed to their implementation and the EP removed this possibility from the final reform in 2002. This mechanism has been introduced in other countries, such as New Zealand and Iceland, where it has been implemented in a general manner, i.e., ITQs with indefinite duration and no limits to the concentration of rights. In other countries, such as Australia, Norway and USA, it has been introduced in a more restricted manner (limited duration, limits on concentration and according to type of gear) and in specific fisheries. In the Commission's proposal, the possibility of transferring such rights among national owners or among different countries lies with Member States themselves. The system will be applied obligatorily since 2015 to vessels 12-m in length or more and to those which fewer than 12 m use trawl technology, therefore not obligatory for the remainder of fleets. This exception is introduced to avoid possible negative effects on small-scale fisheries and those communities more dependent on fishing deriving from a possible concentration of such rights in industrial fleets (European Commission, 2009). However, the EC leaves it open to the Member States themselves to extend application to all national vessels, as long as they notify the EC.

2. Literature review

The overexploitation of marine resources and economic inefficiency that derives from free access to such resources justifies the introduction of regulatory measures that allow to change the behaviour of fishermen for bringing up the situation of fishery closer to the desirable or sustainable status from a bio-economic

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point of view, including measures such as the application of property rights or market instruments, or taxes. The success of any regulatory measure depends on the complexity of the reality. This complexity increases with size of the fishery, number and diversity of agents operating in it and their interests, their level of cooperation, and degree of mobility of both marine resource and fishermen (Arnason, 1991; Hannesson, 1994; Ovando et al., 2013; Pita et al., 2010; Townsend, 1990; Viveroa et al., 2008; Wilen, 1989). However, the possibilities of success also depend on the institutions that exist, and so it would be advisable for the different fishery administrations to have sufficient credibility among fishermen so that regulations can be applied as legitimately and with the greatest degree of compliance as possible (Coffey, 2005; Coglan and Pascoe, 2015; Gelcich et al., 2009; Marshall, 2007; North, 1990; Ostrom, 1990; Schlager and Ostrom, 1992). On other hand, if fishermen operate with high uncertainty level as to their possibilities of carrying out fishing activities in the future, they will have less incentive to fish responsibly insofar as marine resource conservation is concerned. A possible means of guaranteeing their future participation in the fishery lies in the progressive implementation of individual transferable rights (Arnason, 1991), either with regard to a part of the catches (individual transferable quotas or ITQs) or fishing effort (transferable effort). The use of these market instruments could be more efficient and less costly than other measures such as funding for vessel scrapping schemes to adapt fishing capacity to the situation of fish stocks. In addition, these instruments would make it possible to reduce excess capacity, as agents adapt their activity to fishing rights in order to achieve economic efficiency (Arnason, 1991; Asche et al., 2008; Hannesson, 1994). There are disadvantages, however, among which are the inequity and the concentration of rights among a small number of owners (Brandt, 2005; Bromley, 2009; Copes, 1986; Danielson, 2002; Grafton and McIlgorm, 2009; Hannesson, 1994; Homans and Wilen, 1997; Olson, 2011; Quiggin, 1992).

Different recent economic studies look at the attitudes and preferences of fishermen and other marine resource users as to the possible introduction of fisheries co-management measures, placing the emphasis on the greater level of participation in the decision-making process (Berghofer et al., 2008; Dimech et al., 2009; Gelcich et al., 2009; Pita et al., 2010; Amigo-Dobaño et al., 2012). The analysis of fishermen's preferences of different regulatory mechanisms has been developed qualitatively and, in the majority of cases, *ex-post* implementation of the measures (among others, Davidse, 2001; Davis and Jentof, 2001; Eythórsson, 1996; Grafton, 1996; Holland, 2007; Wiber et al., 2004). A statistical analysis on the perception of European regulation in that moment and on new management measures was carried out for the Galician fishermen case in the North-West of Spain for 2010 (Amigo-Dobaño et al., 2012). This is now extended to all Spanish fishing fleets involved in European grounds and the reasons in favour (or not) of implementation transferable rights are researched. Then the aim of this new study is to analyse the preferences of Spanish fishermen with regard to the new regulatory measures posed by EC in the new CFP, and to carry out an international comparison of the results obtained. To do so, in Section 3, we describe the study case and pose the method to be used; in Section 4, we show the results of the analysis; in Section 5, we carry out an international comparison; and the paper concludes with the discussion presented in Section 6.

3. Study case

Bearing in mind that the fundamental objective of the Common Fisheries Policy is to adapt fleet capacity to existing marine resources and to do so, among other measures, it establishes a management system based on transferable rights, the study has been set out to evaluate fishermen's preferences with regard to new regulatory possibilities, either by means of a system of quotas or based on fishing effort. The different characteristics of these property rights are taken into account, including both the duration of the fishing rights (annual or multiannual) as well as the possibility of purchase and sale (transferability) among fishermen or producer organisations. To do so, fishermen were asked to choose between a system of individual rights based on quotas and a system based on fishing effort (fishermen were randomly chosen from the Spanish fishing fleet census). They were then asked to list their preferences for both systems according to the possible characteristics of individual rights, such as their duration and transferability among fishermen. The responses were stratified using a four point Likert scale[1]: level 0 indicates that preferences are strongly unfavourable; level 1, quite unfavourable; level 2, quite favourable; and level 3, strongly favourable.

In relation with the target population under study susceptible to the application of transferable rights, Table 1 shows the number of Spanish vessels operating in European waters per each fleet segment, from the smallest (boats involved in artisanal fisheries) to the largest (trawlers in Gran Sole ground or Celtic Sea). We can see that most of the fleet belongs to the artisanal or small-scale fisheries segment and is made up of vessels less than 12 m in length, have between one and three crewmembers and use a large variety of gear. Given that their activity is usually relatively homogenous per fishing zone and that the vessel owners do not keep detailed accounts of income and costs deriving from their activity, we chose to survey directly the associations or guilds that the vessels of each fishing zone belong[2] In addition to artisanal segment, the fleet operating in Spanish waters includes 1928 vessels which use gillnets, longlines, trawl and purse-seine methods. Lastly, we find the fleet involved in non-Spanish European waters, made up of 240 vessels; of which 178 (longliners and trawlers) operate in European waters (known as Grand Sole or Celtic Sea) and the rest are surface longliners which also operate in international Atlantic waters following the migration route of swordfish in these waters[3].

Information was also gathered on demographic characteristics (age), characteristics of activity (skipper/crewman, number of crew, characteristics of the vessel —length and vessel capacity) and type of gear used by the vessels. Before putting the questionnaire into practice, we contacted different fisheries associations and fishermen with the aim of introducing the study proposed and ask for their collaboration via a pilot questionnaire. Once the questionnaire was adapted, interviews were carried out person-to-person, between May and July 2014, and each interview lasted an average of 20 min. The completed questionnaires correspond to 264 vessels and 68 fishermen's associations divided up according to the fishing gear used: 68 questionnaires correspond to artisanal associations made up of around 6100 vessels; 73 to purse seine; 39 and 98 to longline and coastal trawl, respectively; 9 to gillnets; 17 to surface longline; and 13 and 15 to longline and trawl in the Grand Sole fishing grounds, respectively.

Due to the relatively small size of the sample with regard to

[1] The Likert scale is frequently used in social sciences and, in particular, in fisheries economics to measure the preferences and attitudes of economic agents with regard to certain policies and management measures (Berghofer et al., 2008; Gelcich et al., 2009; Likert, 1932; Pita et al., 2010).

[2] There are 224 associations in Spain (called "Cofradías"). In spite of it, we were unable to obtain sufficient information in order to include the income variable in the statistical analysis.

[3] In addition, 185 vessels operate in international or third country waters, to which we would have to add 33 seiners which land tuna. These vessels are not affected by regulation in European waters and, therefore, they will not be subjected to the analysis carried out in this study.