

Regulatory challenges to economic growth in aquaculture: The case of licensing in the Irish oyster industry

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ABSTRACT

Like a number of countries, Ireland has set ambitious growth targets for its aquaculture sector. Economic analysis highlights that such growth has the potential to provide significant gains to the Irish economy in general, but also to peripheral rural areas in particular. However, through interviews with producers representing a significant proportion of Irish oyster production, this paper highlights the challenges faced and argues that for these growth ambitions to be realised there is a need to overcome significant regulatory, biological and financial constraints on the sector. In particular dysfunctional licensing arrangements are a major constraint on the development of the sector. It is argued that licensing reform is a necessary but not sufficient condition for a thriving oyster industry and that a more holistic view of the industry needs to be taken.

1. Introduction

In Ireland, in recognition of the contribution that aquaculture can make to food security and economic development in peripheral rural areas, a number of high profile reports have set significant growth targets for the sector [1–3]. In addition, as noted by Grealis et al. [4], the National Strategic Plan for Sustainable Aquaculture Development (NSPSAD) sets out a target of achieving production levels, for all aquaculture sub-sectors, that represent an almost doubling of the average annual output from the base year period (which was between 2008 and 2012). Studies by Vega et al. [5], Renwick [6] and most recently, Grealis et al. [4] highlight the significant potential economic gains that could arise from aquaculture growth in Ireland.

However, it has been argued that there are significant regulatory, financial and biological challenges facing aquaculture producers which may constrain the sector [7]. Of these challenges, a dysfunctional licensing system is often cited by the industry as a major constraint on the Irish aquaculture sector [7,8].

These issues are not unique to Ireland. Regulatory challenges in general and dysfunctional licensing in particular are often cited as key reasons for the failure of aquaculture to meet its potential in many regions of the world [9–14]. In Europe, for example, the European Commission [15] noted that ‘it is clear that several of the key constraints [to the development of aquaculture] relate to the licensing procedures employed in the Member States.’ In Denmark, Ashan and Roth [16] noted ‘...fish farmers perceive the risk of changes to different rules and regulations to be one of the most important risk sources for their business.’ They also note that ‘The risk of frequent changes of

policy and thereby regulations on their production poses a high risk for continuity’. Similarly Bergfjord [17] found that ‘institutional’ risk factors, including changes to the licensing system, were viewed as highly significant by fish farmers in Norway.

Internationally, the requirements of a functioning licensing system are well recognised. For example, a study for the FAO argued that: ‘The purpose of licensing is to ensure an orderly development of the industry with due care taken to minimise negative externalities’ [9]. Examples exist within Europe and elsewhere of licensing systems that appear to be functioning more effectively. In particular, Norway is often held up as an example of how licensing applications can be handled in a timely way (for example, see Hishamunda et al. [9]). Here a ‘one stop shop’ approach has been adopted and it can take as little as six months to arrive at a definitive response to licensing applications.

Based mainly on semi-structured interviews with oyster producers and other industry stakeholders, the main purpose of this paper is to assess the extent that regulatory failure (in the form of a dysfunctional licensing system) threatens the development of aquaculture businesses in Ireland and consequently the achievement of growth targets. It also considers the interaction between these regulatory issues and the financial and biological challenges facing the sector to determine the extent to which resolving the licensing issue will allow the sector to overcome these threats and become more resilient. The Irish oyster industry provides a good case study of the issues facing aquacultural development more generally in Ireland, because it is the largest employer of labour and second largest, after the salmon industry, in terms of output value [18]. It also is a sector where significant market opportunities have been identified [19,20] while at the same time,

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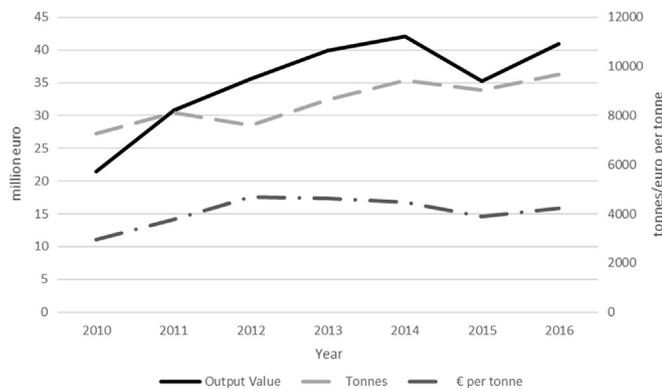


Fig. 1. Value of output, tonnes produced and price per tonne for oysters in Ireland 2010–2016. Notes: Output value shown on left axis, tonnes produced and price per tonne on right axis; Figures for 2015 and 2016 exclude native oyster production.

Source: BIM Annual Survey of Aquaculture Various Years

significant regulatory, financial and biological threats exist which may constrain any future growth [21].

The paper is structured as follows. The next section provides an overview of the current structure and economic performance of the oyster sector in Ireland and outlines the background to the current challenges within the licensing system. The methodological approach is then outlined and this is then followed by the presentation of results. The discussion section then draws on the findings to consider the extent that a functional licensing regime can improve the resilience of the sector. Finally, some conclusions are drawn.

2. Background

2.1. The Irish oyster industry

Oyster production in Ireland can be viewed as both an old and a new industry. Old, because there is a long history of the harvesting of native oysters in Ireland and new, because the commercial farming of Oysters (mainly Gigas) is a much more recent development coming to prominence in the 1980s and 1990s.

As Fig. 1 shows, the annual production of oysters in Ireland has grown significantly (by 33 per cent) between 2010 and 2016 to nearly 10,000 t [8]. The Figure does though also highlight the vulnerability of oyster production due to its biological nature. The marked decline in production between 2011 and 2012, was the result of an algal bloom along the West coast of Ireland and the smaller fall between 2014 and 2015 was due to issues with oyster mortality. Oyster production occurs in 11 counties in Ireland, however in 2016, two counties, Waterford and Donegal, together accounted for over 50 per cent per cent of Irish production in terms of tonnage [18].

Fig. 1 also highlights that the value of production nearly doubled between 2010 and 2014 to just over €40 million [22]. This was a result of a combination of significantly higher prices as well as increased production. The Irish industry benefited from a series of events in France that led to a significant reduction of domestic supply and a marked increase in the price of Oysters [23]. Retail prices in France rose from just under €8 per kilo in 2009 to nearly €12 by 2013 and this change was reflected in wholesale prices in Ireland. However, in 2015 the value of output dipped slightly due to changes in demand in France as well as the issues with oyster mortality [24] although it recovered in 2016 [18].

In general Oyster farming is small scale in nature, for example in 2014, seventy-two per cent of enterprises had five or fewer employees [25]. However, it is estimated that as much as 70 per cent of Ireland's production comes from just 15 enterprises [26]. In 2016, an estimated 1300 people attained some form of employment from Oyster production, reflecting the labour intensive nature of the enterprise [18].¹ In

line with the growth in output, total employment (in terms of FTEs) increased by 20 per cent between 2010 and 2014 [24].

A key feature of the Oyster industry is that it is export focused with the vast majority of production being consumed outside of Ireland. Globally, the Oyster industry is dominated by France, both in terms of demand and production and this is the major destination for Irish exports, accounting for an average of 88 per cent of exports between 2012 and 2014.² During this period small quantities were exported to other EU markets, such as the Netherlands and to Asia. However, significant growth in exports to Asian markets (particularly Hong Kong) has occurred since 2014, reducing to some extent the reliance on France. Although France still accounted for three quarters of exports in 2015 [26]. The interviews conducted for this study also highlighted that the influence of France goes beyond being the main market for Irish oysters as French producers are directly involved in production in Ireland.

According to EU figures, there was a transformation in terms of profitability of the sector over the period 2008–2012 in line with the strong prices being received from the main market of France [27]. Gross Value Added increased from around €5 million to nearly 30 million and in terms of Net Profit the sector moved from a loss of €6.4 million in 2008 to a surplus of €18 million in 2012 although lower prices led to a decline in profit in 2013 and 2014 [22].

Taken at face value, it may appear that the industry is performing well, with employment and profitably increasing markedly in recent years. However, these aggregate figures hide considerable variation in production between years both across regions (such as 2012 when the West of Ireland was hit by an algal bloom) and within particular businesses.³ It also fails to take into account the possible constraints on future growth. As noted in the introduction, a dysfunctional licensing system has been identified as a key constraint [7,8] and the next section therefore outlines the background to what is a complex and contentious issue within Ireland.

2.2. Licensing

As the oyster farming industry began to develop (in the 1980s and 1990s) licences were allocated and the industry grew on the foreshores around Ireland. However, problems began to emerge because under EU legislation (and in particular within directives such as the Birds and Habitats Directive)⁴ each country was required to designate a certain proportion of its total land area as areas of conservation [28,29]. The Irish Government was slow to designate areas which led to the situation where they were facing daily fines from the EU for non-compliance [30]. When the Irish government did begin to designate significant areas, large areas of the foreshore were classified as Special Areas of Conservation (SACs) [31]. This decision had major implications for the oyster industry because licences to operate had already been issued in these areas and oyster farming was taking place. Environmental groups argued that the licences did not take proper account of Natura 2000 requirements and that the Irish Government were delinquent due to the fact that this was an infraction of the rules [32]. The European Commission agreed with the Environmental groups that the Irish Government had not followed the proper procedures and the case went before the Court of Justice. In December 2007, the Court of Justice of the European Union ruled that Ireland had failed to comply with the Habitats and Birds Directives by not requiring appropriate assessment of aquaculture activities in or adjacent to Natura 2000 areas [8,33–35]. By

¹ For example, although the value of production generated from salmon farming is around two and half times greater than that from oyster production in Ireland, nearly four times as many people are employed in oyster production [18].

² Figures supplied to the author by Bord Iascaigh Mhara based on Eurostat data. Tables available from the author on request.

³ Some of the businesses surveyed as part of this study highlighted variations of up to 50 per cent in production over the 2012–2015 period.

⁴ The environmental directives were later collectively known as Natura 2000.

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