SR667: ASSESSMENT OF THE BENEFITS OF MSC CERTIFICATION TO A MAJOR UK FISHERY AND ITS SUPPLY CHAIN.

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ASSESSMENT OF THE BENEFITS OF MSC CERTIFICATION TO A MAJOR UK FISHERY AND ITS SUPPLY CHAIN

FOR

SFSAG
Scottish Fisheries Sustainable Accreditation Group

APRIL 2014

BY

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TABLE OF CONTENTS

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EXECUTIVE SUMMARY

This study has been undertaken by Poseidon Aquatic Resource Management Ltd for the Scottish Fisheries Sustainable Accreditation Group (SFSAG) and was completed from January to April 2014.

The aim of this work is to inform decision making processes on Marine Stewardship Council (MSC) certification, including whether fisheries should enter the MSC certification process in the first place or if currently certified fisheries should seek re-assessment (after the 5 year period of MSC certification). This report presents the findings from the first year of a study to provide an assessment of the benefits of fishery accreditation, using the MSC certified North Sea (NS) haddock fishery as a detailed case study to determine current benefits and to track benefits for the next two consecutive years (in subsequent follow-up research).

The objective of the project is to identify and assess the benefits of Scottish MSC haddock certification in branded MSC and non-labelled segments of the retail and foodservice supply chains. Furthermore, indirect benefits will be explored throughout the supply chain and with other stakeholders in the seafood industry

The research involved collating primary qualitative and quantitative data through consultation delivered through structured interviews with stakeholders throughout the supply chain for Scottish NS haddock including: Producer Organisations (POs) and fishery associations, fish selling agents, processors, wholesalers, retailers, the food service sector, government and non-governmental organisations (NGO's). In total 25 companies and 32 individuals were consulted. Other information sources included databases of haddock landings by size grade and month; by ICES Division and vessel nationality; and retail scan-track data.

Scottish vessels landed 23,004 tonnes of haddock from the North Sea in 2012, with a first sales value of £26.6 million. At first sale all of this haddock is MSC certified, however when leaving the processing/wholesaler stage of the supply chain and entering the consumption stage (of retail and food service sector), approximately 30-40% of the Scottish NS haddock was found to be branded as MSC; the remainder was non-labelled.

Comprehensive analysis of detailed price data found no evidence of price premiums at first sale that could be attributed to MSC certification. However, anecdotal evidence suggests that some processors and wholesalers will pay up to an additional 10% for MSC certified haddock and that this price premium is transferred at the same rate to stakeholders higher in the value chain when products are branded as MSC.

There is clear qualitative and quantitative evidence to demonstrate that the MSC certification of NS haddock has both maintained market share and given access to new markets. This is predominately within the retail sector, with only a few smaller cases within the food service sector. There is a risk that this market share would be significantly affected, with alternative MSC haddock being sourced should Scottish NS haddock no longer be MSC certified.

Other benefits explored within the report include market stability and security; product differentiation and future- proofing of the fishery; improved public image and reputation including increased political credibility; improved traceability systems; and promotion of provenance and local sourcing.

1 INTRODUCTION

1.1 CONTEXT OF THE STUDY

The SFSAG North Sea haddock fishery achieved Marine Stewardship Council (MSC) certification in October 2010, and more recently the Northern Shelf saithe fishery was certified in October 2013.

The MSC certification process requires a detailed assessment by third party auditors against a number of environmental sustainability principles and criteria, followed by Chain of Custody (CoC) requirements for all buyers throughout the supply chain. These aspects are checked each year through surveillance audits and the entire process is considered by some to be expensive and onerous for operators in the fishery.

Direct benefits for the catching sector can be difficult to identify, with the perception that any benefit that may be achieved occurs further up the supply chain. The value of certification may be in terms of safeguarding market position rather than a clear premium. This raises questions amongst operators, including whether fisheries should enter the MSC certification process in the first place and whether currently certified fisheries should enter re-assessment (after the 5 year period of MSC certification).

This report presents the findings from the first year of a study to provide an assessment of the benefits of fishery accreditation, using the MSC certified North Sea (NS) haddock fishery as a detailed case study to determine current benefits and to track benefits for the next two consecutive years.

MSC certification is one of several sourcing criteria used by buyers. Scottish North Sea haddock is also one of a growing number of haddock fisheries that are MSC certified. However, with no other MSC certified haddock being landed fresh into the UK, SFSAG retains a distinct market position for some buyers in terms of product form and provenance. These aspects will be explored and wherever possible quantified.

Less tangible benefits of certification were also be explored with supply chain stakeholders and with wider policy and NGO contacts, e.g. contributions to wider food & drink marketing initiatives; export market development and broader reputational aspects.

1.2 PROJECT OBJECTIVES

The aim of the study is to assess the benefits of MSC certification throughout the supply chain of the Scottish NS haddock fishery and, in doing so, inform decision makers on the benefits of future fisheries certification.

The project has the objective to identify and assess the benefits of Scottish MSC haddock certification:

- In branded MSC retail and foodservice supply chains.
- In non-branded segments of the retail and foodservice supply chains.
- For other stakeholders in the seafood industry. (e.g. Government, managers and environmental NGO's)

Two follow up assessments of these value chain benefits will be undertaken in following years to explore any changes to this initial assessment.

2 METHODOLOGY

2.1 DATA SOURCES

Three key data sources have been utilised in this study:

- Marine Scotland database of haddock landings into Scotland including: weight, value, ICES Division, vessel nationality, size grade (0-4) and month for 2009-2012 (Marine Scotland, 2014).
- MMO database of all fish and shellfish landings into the UK including: weight, value, ICES Division, vessel nationality and month for 2008-2012 (MMO, 2013).
- Nielsen Scantrack data for 2011-2013 with detail on the weight and value of haddock by state (fresh/frozen) and product (fillets, battered, breaded, cakes etc.) (Seafish, Nielsen Scantrack, 2014).

2013 data for the Marine Scotland and MMO databases were not available to inform this year's assessment, but is expected to be available by November 2014, which would allow their inclusion within subsequent studies.

Market retail data from Nielsen Scantrack & Homescan for haddock was provided from 2011 to 2013 indicating the volume, value, product form (chilled, frozen or ambient) and product type (battered, breaded etc.). However, these data does not provide detail on the area of origin (North Sea, Barents Sea, Norwegian Sea etc.) or vessel nationality, and therefore Scottish North Sea haddock cannot be disaggregated from the data. Notwithstanding this, the data do provide a useful summary of trends in the retail market for haddock and for consumer choices and purchasing decisions.

2.2 CONSULTATION

Consultation was undertaken with a wide range of stakeholders throughout the haddock supply chain including: Producer Organisations, fish selling agents, primary processors, secondary processors, wholesalers, foodservice industry, retail, Government and NGOs. In total 25 companies and 32 individuals were consulted as part of this study.

A list of consultees is provided in Appendix A. The MSC 'find a supplier' database informed a list of consultees, which was further refined in consultation with the SFSAG and Seafood Scotland.

Consultation was through structured interview, using a questionnaire (Appendix B), either face-to-face or over the telephone. Two consultees chose to complete the questionnaire remotely, providing answers by email.

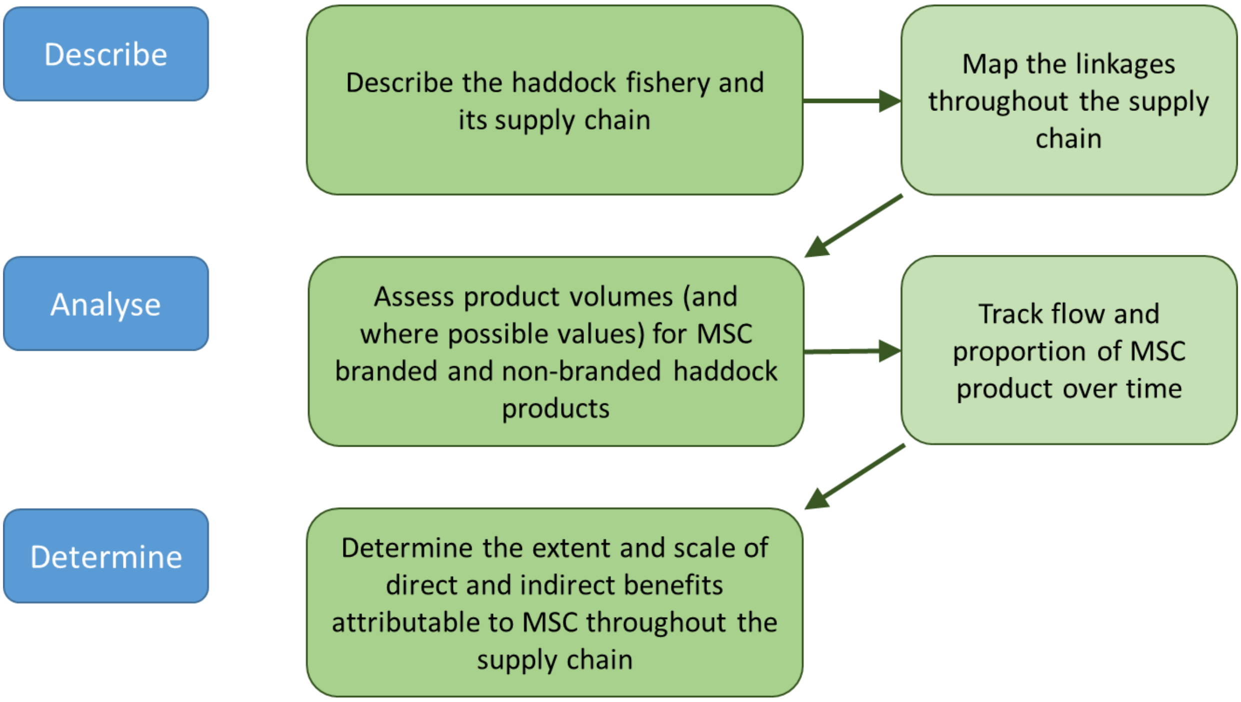
2.3 SUPPLY CHAIN ANALYSIS

Supply chain analysis consists of qualitative and quantitative analysis of inputs and outputs between firms, prices and value added throughout its supply chain i.e. from its primary production, through its processing and marketing to the final sale of the product to consumers. The functions of each link in the chain involve sourcing inputs, making/producing, and then delivering/selling product to the next link in the chain.

Supply chain analysis is composed of a number of steps, which are both descriptive and analytical in nature. The overall supply chain within which the Scottish NS haddock fishery operates will be described, considering who is involved and the linkages between stages. This will be used as a platform to compare product flows of MSC branded and non-branded Scottish NS haddock, and in subsequent studies to describe changes over time.

These descriptive and analytical steps can be used to determine the extent and scale of direct and indirect benefits resulting from MSC certification within the Scottish NS haddock fishery. The steps for the proposed supply chain analysis are presented schematically in Figure 2.1.

Figure 2.1: Steps involved in supply-chain analysis



Supply chain analysis differs from value chain analysis principally because it focuses on the volumes of different product flows, rather than defining the specific added value at each stage. Consultation provided detail on volumes of MSC branded and non-branded Scottish NS haddock throughout the supply chain, however value data was often withheld due to commercial confidentiality. As a result it was not appropriate to present the results within a value chain context. Nevertheless the supply chain analysis, together with price data and anecdotal evidence collated throughout consultation have allowed the objectives of this project to be met.

2.4 REPORT STRCUTURE

The remaining sections of the report are structured as follows:

- The haddock fishery
  - Trends in UK haddock landings
  - Scottish haddock landings
  - Supply chain
- Value-chain analysis
  - Stage I – first sales
  - Stage II – processing
  - Stage III – consumption
- Benefits of MSC certification
  - Direct benefits
  - Indirect benefits
  - Are benefits of MSC worth the associated costs?
- Conclusions
  - Key findings of the study
  - Recommended follow-up approach

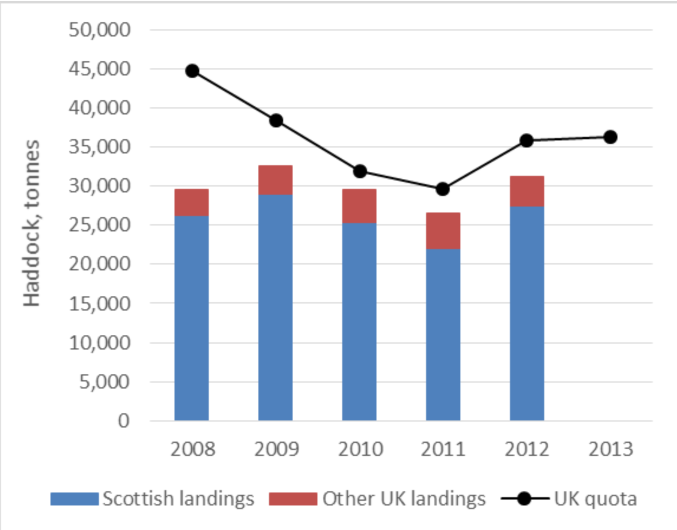
3 THE HADDOCK FISHERY

3.1 TRENDS IN UK HADDOCK LANDINGS

Total UK haddock quota for 2013 was set at 36,227 tonnes, representing a 1% increase compared to 2012. UK quotas for haddock in all ICES Divisions are presented in Figure 3.1 from 2008 to 2013, together with Scottish and other UK landings. Figure 3.1 also presents these data specifically for the North Sea quota. Total landings tend to be approximately 16% lower than the initial yearly quota allocation for a number of reasons, including quota swapping. Total UK haddock quotas had decreased steadily from 2008 to 2011 and increased into 2012 and 2013. As expected, landings have followed a similar pattern. On average, Scottish vessels account for 87% of total UK haddock landings by weight.

UK haddock quota for the North Sea[1] follows a similar pattern as that for total UK haddock quota, with the exception of 2012 to 2013 when the quota increased by 15% to reach 29,194 tonnes (Figure 3.1). On average, Scottish vessels account for 91% of UK haddock landings from the North Sea.

The majority of UK haddock quota is set for the North Sea (combined with the Norwegian Sea), representing 73% of the total (Figure 3.2); this is followed by Rockall and West of Scotland (combined with Faroes) at 10% each (based on average quotas set across 2008 to 2013).



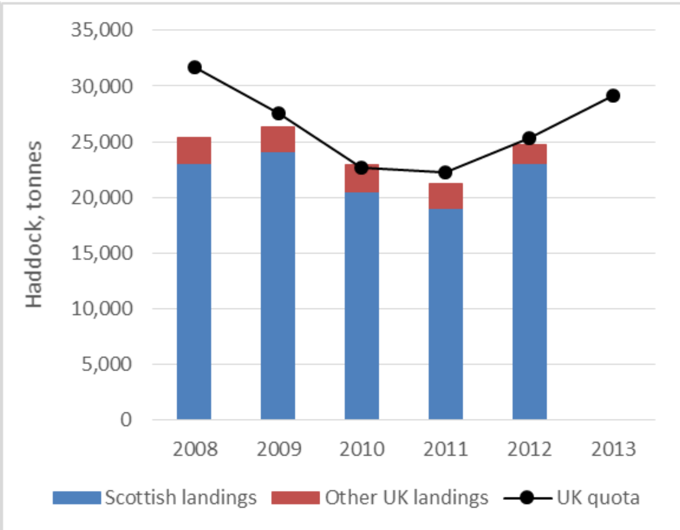


Figure 3.1: Haddock UK quota for all ICES Divisions (left) and North Sea only (right), together with associated landings by Scottish and other UK vessels from 2008-2013

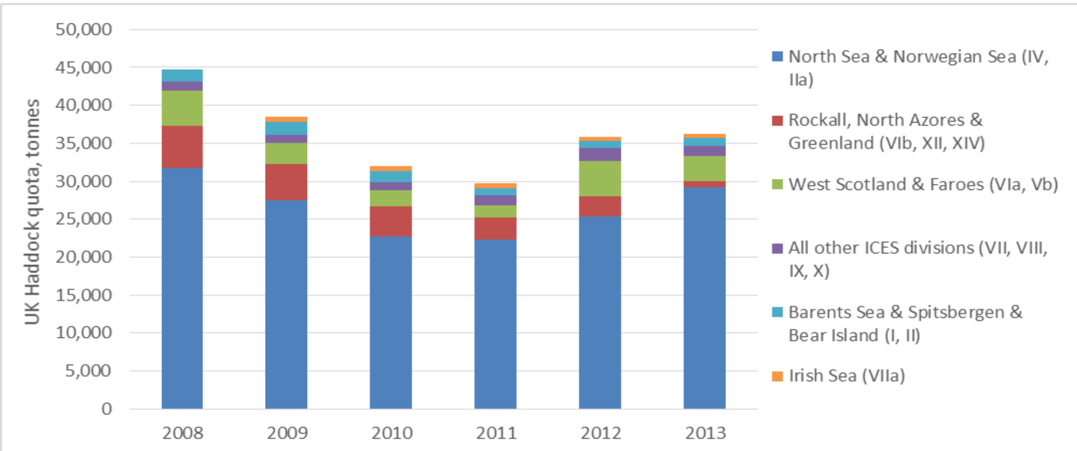


Figure 3.2: Haddock UK quota by ICES Division from 2008-2013

[1] Within EC Fishing TACS and Quotas the North Sea haddock quota is set in conjunction with EC waters of the Norwegian Sea (IIa). However there are very little landings from IIa (annual average UK: 218; Scotland 0.8 tonnes.

3.2 SCOTTISH HADDOCK LANDINGS

Haddock is the most economically important demersal finfish species to the Scottish fishing fleet, with 27,490 tonnes worth £32 million landed in 2012 (Figure 3.3), and the fourth most important based on all Scottish landings (behind mackerel: £131 million, *Nephrops*: £82 million and scallops: £37 million).

The great majority (85% by weight and 82% by value) of Scottish haddock landings are from the northern and central North Sea, where Scottish vessels are entitled to land MSC certified haddock. The volume of Scottish haddock landings has fluctuated from 2008 to 2012, peaking in 2009 and dropping in 2011, to rise again in 2012 (Figure 3.3). However, landings by first sale value do not follow this trend and have remained more-or-less consistent across this time period. As may be expected, there is an inverse relationship between trend in the amount landed and annual price variations, with lowest prices during the highest supplies and highest prices during highest demand.

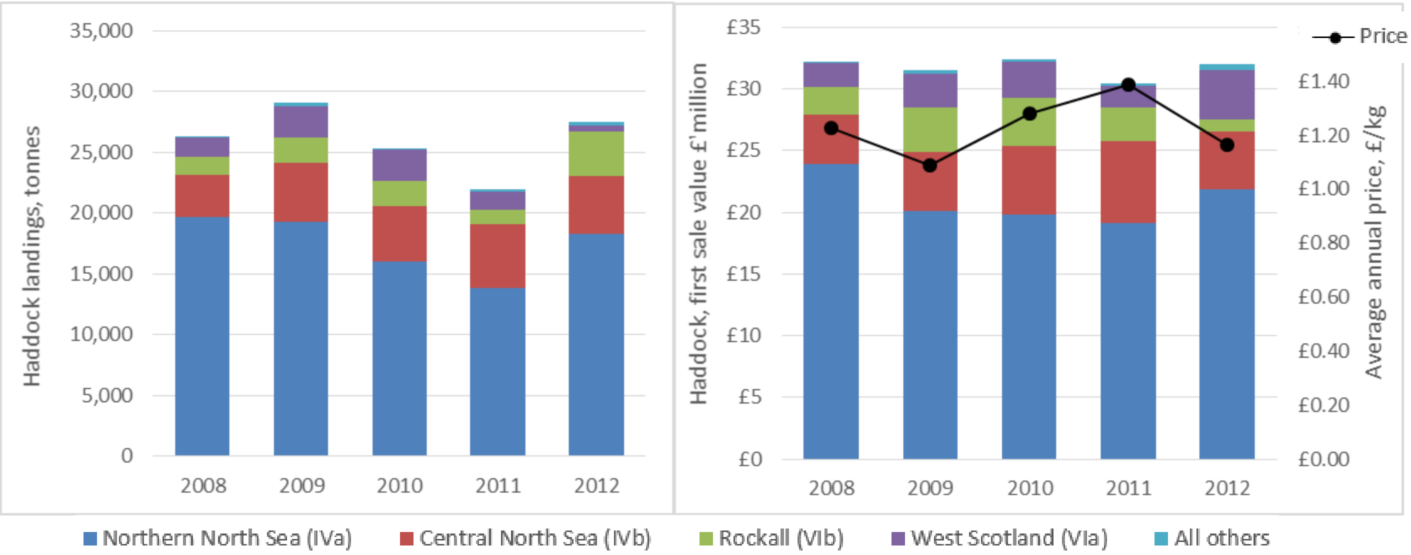


Figure 3.3: Scottish haddock landings by weight (left, tonnes) and first sales value indicating average annual price (right, £'million; £/kg) by ICES Division from 2008-2012

60% of 2012 landings were made into Peterhead, with 8% to Fraserburgh; 8% to Scrabster; 7% to Lerwick and 5% to Kinlochbervie (Figure 3.4 and Figure 3.5). Other UK-registered vessels landed 3,464 tonnes into Peterhead (21%), Newlyn (9%), Cuxhaven (8%) and smaller amounts into other UK ports.

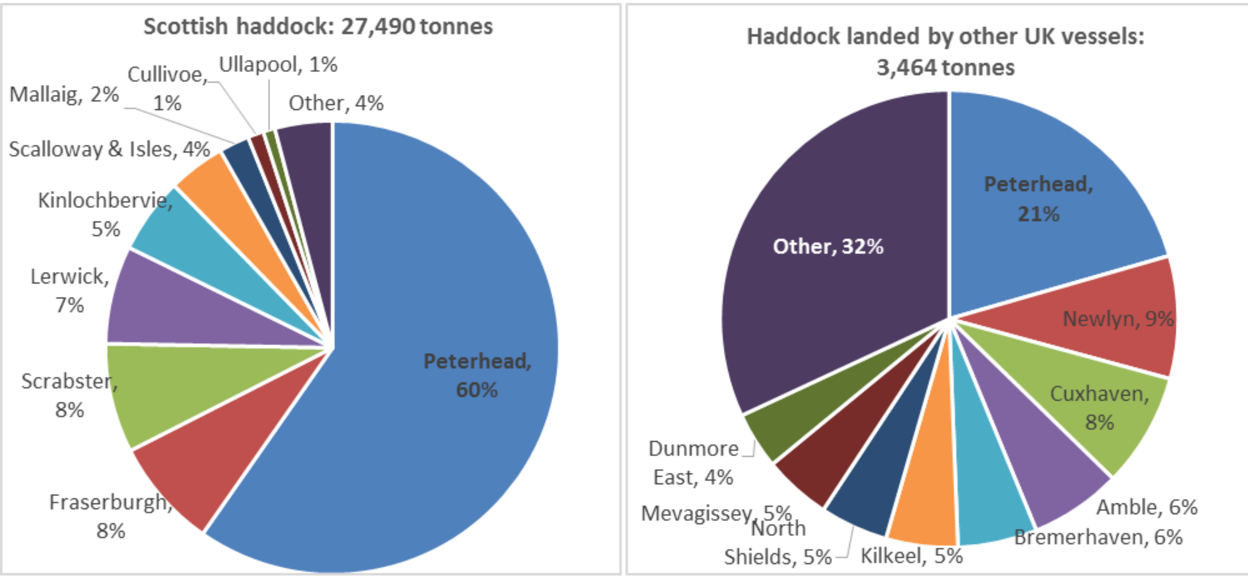


Figure 3.4: Haddock landings (tonnes) by port for Scottish vessels (left) and other UK vessels (right), 2012

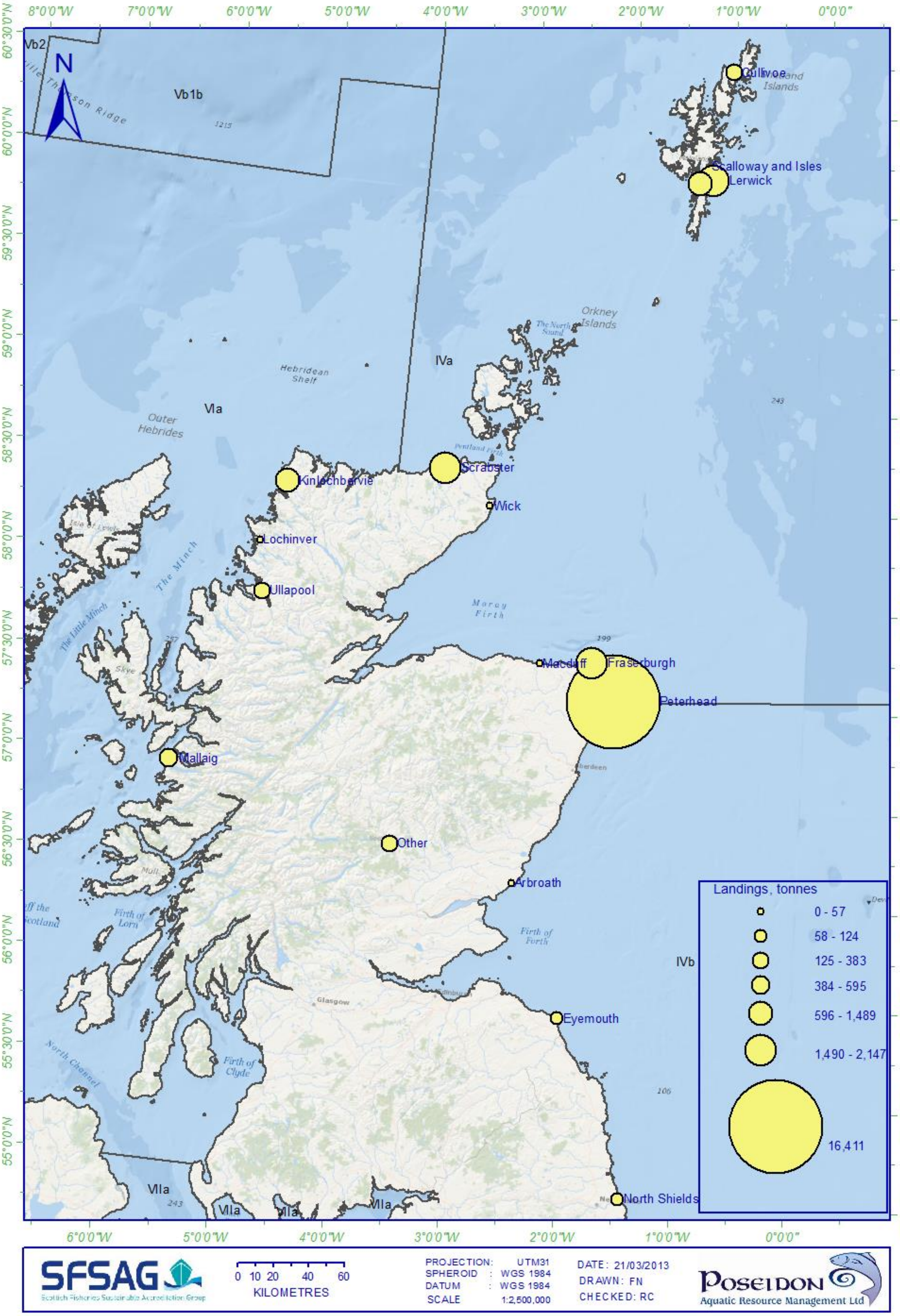


Figure 3.5: Landings of haddock by Scottish vessels from all ICES Divisions by port in 2012.

84% of haddock landed by Scottish vessels (23,004 tonnes) in 2012 was from the North Sea, with a first sales value of £26.6 million (Figure 3.6). This represents a 21% increase in volume on 2011, but is similar to 2008 and 2009 levels. Figure 3.7 Illustrates Scottish North Sea haddock landings weight by month for the period 2008-2012. Landings occur throughout the year, peaking from June to November and dropping from December to May, with a significant trough during April.

Figure 3.6: Scottish haddock landings (tonnes and £'000) from the North Sea (IVa and IVb) from 2008-2012

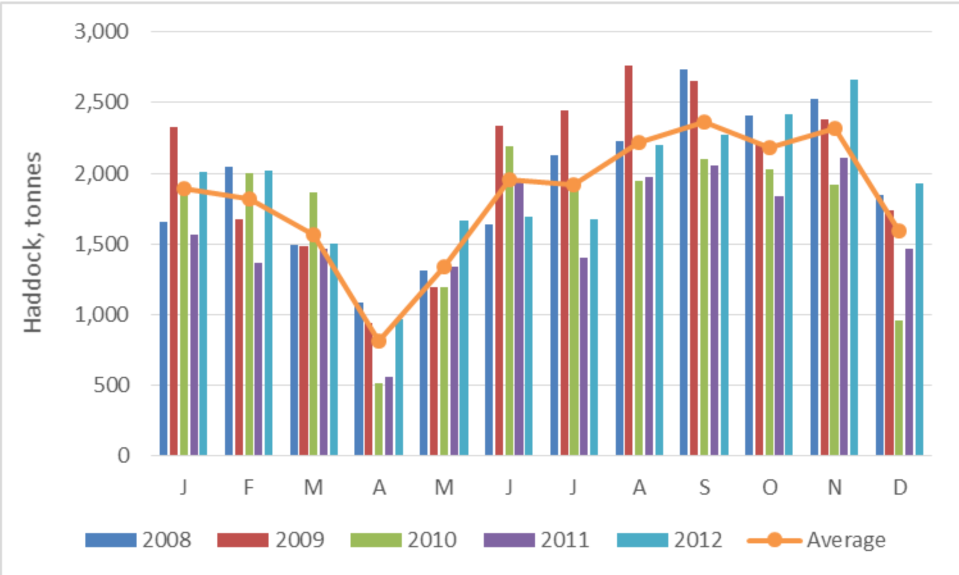


Figure 3.7: Scottish haddock landings (tonnes) from the North Sea (IVa and IVb) from 2008-2012 by month

3.3 SUPPLY CHAIN

This section focuses on the supply chain for haddock landed by Scottish vessels from the North Sea (ICES Division IVa and IVb[2]) i.e. the landings covered by the SFSAG haddock MSC unit of certification (UoC), which is depicted in Figure 3.8.

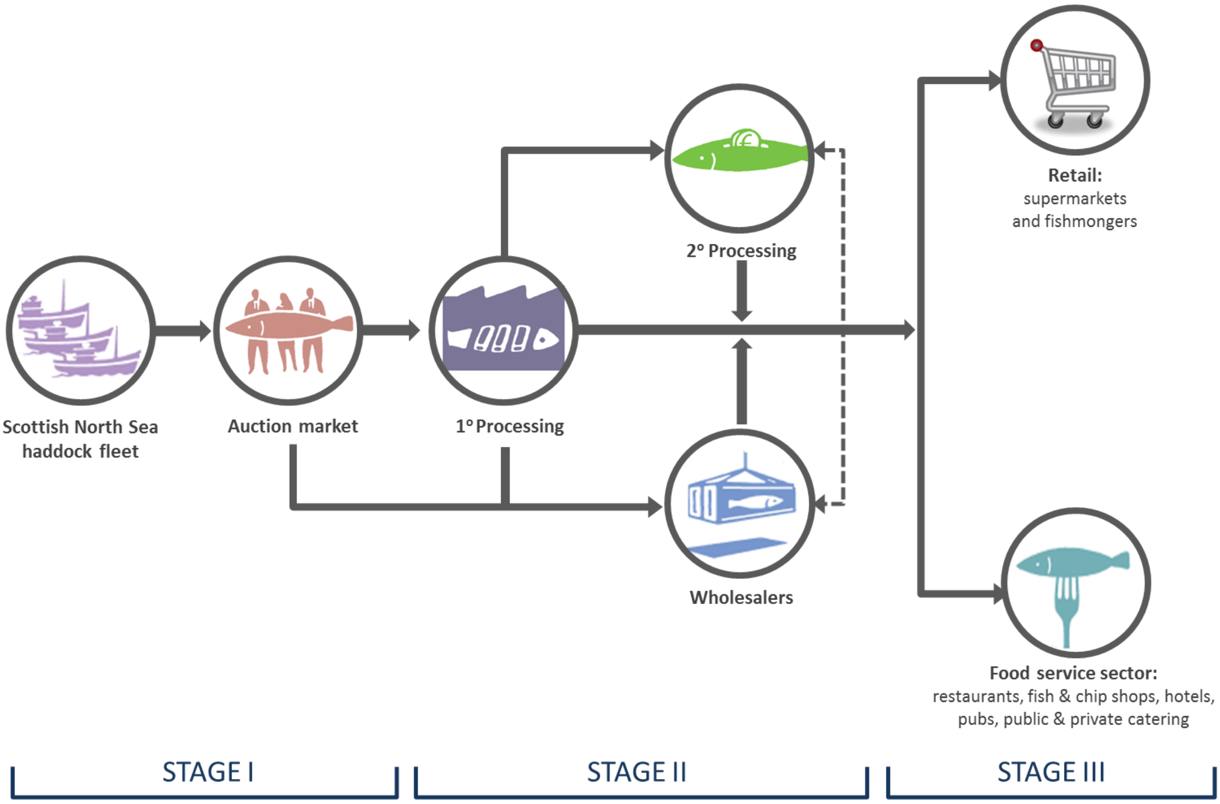


Figure 3.8: Scottish North Sea haddock supply chain

The supply chain for UK haddock including imports and UK landings from all ICES Divisions and vessel nationalities is presented within the Seafish and KPMG (2004) report as part of their seafood industry value-chain analysis for cod, haddock and *Nephrops*. The supply chain described in this section does not include imports or exports.

3.3.1 Stage I – First sales

Scottish vessels: The SFSAG haddock MSC UoC covers all vessels in membership of a Scottish Producer Organisation and all vessels in membership of the Scottish Whitefish Producers Association (SWFPA).

Fish auction markets: The majority of Scottish vessels land haddock into Peterhead to be sold at the daily (Mon-Fri) auction. Other auctions selling MSC haddock from Scottish vessels include Fraserburgh, Scrabster and Lerwick. These auctions are port-based markets, supplied by a combination of local landings, landings brought over land from other ports, imports via truck, ferry or direct landings. Scottish North Sea haddock is generally supplied via local and direct landings. Sellers include vessel agents and/or fish selling agents and buyers are generally processors, wholesalers and merchants.

[2] Note that no landings from Southern North Sea (IVc) are recorded for Scottish vessels.

Haddock is hand-graded at sea and at auction haddock is sold in sizes, categorised as: 1: large, 2: medium and selected, 3: seed, 4: chippers, metros and round (on sales notes 0 is classified as ungraded).

Round haddock are un-gutted and tend to be smaller and are generally caught closer to shore on day trips, so are fresher without requiring gutting. All other size grades are head on gutted fish.

Fish is sold fresh in boxes of 40-50kg. All eligible North Sea haddock are sold at auction as MSC labelled and, in most cases, with SFSAG MSC tickets (Figure 3.9). All sales documentation relating to product entering an MSC chian of custody carries the vertification number and is fully traceable. Every Scottish North Sea haddock enters the supply chain as MSC-labelled product, but may not enter a chain of custody.

Figure 3.9: SFSAG MSC auction ticket

Fish selling agents: are companies that sell fish on behalf of vessel owners. These may be vessels that their companies own, or other vessels. They act as vessel agents and fish salesman and do not take ownership, alter or add value to the fish landed by the vessels. Key fish selling agents interviewed as part of this study include: P&J Johnstone, Don Fishing Company, Caley Fisheries Ltd and Denholm Fishselling Ltd.

3.3.2 Stage II – Processing

Trading merchants: are companies that buy and sell fish. Trading merchants do not process the fish in anyway (filleting, breading etc.), but they may thaw, split loads and repackage to sell in smaller quantities. Merchants have a similar role as wholesalers, but tend to operate closer to the fishery end of the supply chain and are a very small sector. No merchants were interviewed as part of this study and fish handled by these businesses are included within subsequent stages of the supply chain.

Primary processors: are involved in de-heading, gutting, washing, cutting, filleting, de-boning and skinning haddock, either by hand or by machine, for onward sale fresh or frozen, as blocks or as fillets. Secondary processing is then generally undertaken either by the same company, or a separate secondary processor; unless the product is being sold in its natural form in which case it is purchased by wholesalers or direct by the food service sector. Key primary processors (that may also undertake secondary processing) interviewed as part of this study include: Lunar (who purchase approx. 30-40% of quota), Nolan Seafoods (~4%), JK Thomson (~4%) and DH Clark (~1%).

Secondary processors: are involved in packaging, cooking, smoking, de-boning, breading, battering, marinating, modified atmosphere packaging, preparation of ready meals, meals in sauces and fishcakes etc. A small quantity of Scottish North Sea haddock also enters the pet food industry (this is assumed to be principally off-cuts). Secondary processors often source frozen fillets and the act of further processing defrosts the product which can then be sold as fresh. Mixed processors undertake both primary and secondary processing[3]. Key secondary processors interviewed as part of this study include: Young's Seafood Ltd (% unavailable) and Joseph Robertson (~2% of quota based on fillets[4]).

Wholesalers: are product distributors within the supply chain, combining or more often splitting purchases to sell in smaller quantities. They may defrost and/or repackage, but generally do not

[3] Ten years ago the majority (47%) of processing units were mixed (with 39% only primary and 14% only secondary processing (KPMG and Seafish, 2004). These proportions have remained very similar according to the latest Seafish processor survey (2012), but the number of units has decreased substantially.

[4] To provide a proportion of quota, the conversion for fillets is assumed to be approximately one third of the weight of whole fish.

undertake further processing. Wholesalers buy primary processed fish for sale to the food sector industry (restaurants, fish & chip shops & caterers), as well as small independent retailers. Wholesalers include large catering distribution companies that supply pub and restaurant chains, which are typically supplied with ready to cook value added products that the wholesalers have sourced from secondary processors. Wholesalers also supply a small proportion of overseas customers, including continental Europe. Key wholesalers interviewed as part of this study include: John Vallance (~5% of quota based on fillets) and Campbells Prime Meat (~2% of quota based on fillets).

3.3.3 Stage III – Consumption

Retail: is dominated by large supermarket chains including Marks & Spencer, Sainsbury's, Waitrose, Tesco, Morrison's, Asda, Lidl and Aldi. Independent fishmongers make up a very small segment of this sector. Marks & Spenser, Sainsbury's and Asda sell added value fresh chilled Scottish North Sea haddock products that are labelled as MSC. Fresh chilled Scottish North Sea haddock is also sold at the fish counter of retail outlets (both MSC labelled and non-labelled), and is included within many non-labelled value added products.

Food service sector: includes restaurants, fish & chip shops, hotels, pubs and caterers servicing public institutions (schools, hospitals etc.) and private businesses. They purchase fresh or frozen haddock in blocks or fillets from primary processors and/or wholesalers and value added products (generally breaded/battered) from secondary processors.

4 SUPPLY CHAIN ANALYSIS

4.1 STAGE I – FIRST SALES

Scottish vessels landed 23,004 tonnes of haddock from the North Sea in 2012, with a first sales value of £26.6 million (Figure 4.1). Scottish vessel landings of haddock from other sea areas (i.e. non-MSC sources) totalled 4,529 tonnes worth £5.4 million. Figure 4.1 also presents equivalent figures for haddock landings by English and other UK vessels. This data has been sourced from the MMO database (MMO, 2013), which collates entries from the Registration of Buyers and Sellers and thereby provides a relatively accurate first sales value.

Five fish selling agents were interviewed in Peterhead and Fraserburgh and where possible provided figures for haddock landings in terms of weight, but only a few were happy to report financial values. Some were unable to provide figures or rough estimates of annual volumes of haddock.

All fish selling agents were supportive of MSC certification in the haddock fishery. Based on the daily variations in prices achieved at the auction market, it was not possible for them to specify whether MSC haddock achieved a price premium, but the general consensus was that there was no attributable change in price. This is the case for North Sea haddock pre and post MSC-certification, and also when comparing landings by Scottish vessels from the North Sea with non-MSC sources from West of Scotland and Rockall.

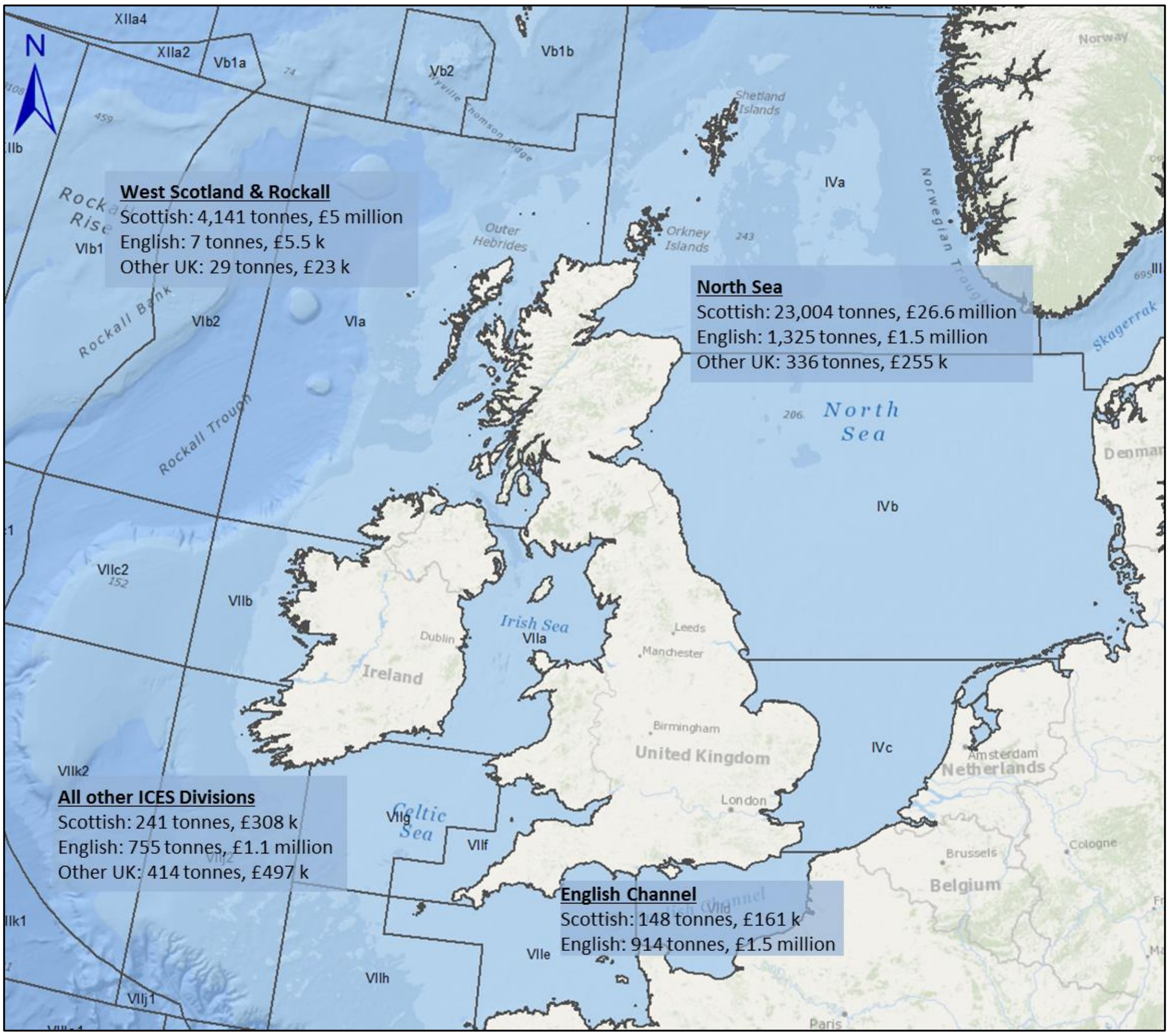


Figure 4.1: UK haddock landings weight and first sale value by ICES Division and vessel nationality in 2012

In the winter months haddock landed from West Scotland and Rockall tend to be fatter for longer due to variations in spawning periods compared to the North Sea stock. As a result, a higher price might be achieved for this perceived higher quality at certain times of the year. Conversely, haddock from West Scotland and Rockall will have travelled further (by sea and/or land) when sold at east coast markets that predominately sell North Sea haddock, and so may be of lower quality in terms of freshness; this can also impact prices achieved.

Section 5.1 provides a detailed analysis of price data for haddock landings by size grade and month.

4.2 STAGE II – PROCESSING

In total nine primary processors, secondary processors and wholesalers were interviewed. In 2013 their combined haddock purchasing was 18,033 tonnes; this amounts to 50% of the total UK quota (62% of the 2013 quota for North Sea) and 75% of these purchases were from Scottish North Sea landings. It is therefore considered to be representative of the haddock supply chain.

Figure 4.2 depicts the proportion of haddock purchased and sold by primary and secondary processors, and wholesalers for the following categories of haddock:

- MSC Scottish North Sea haddock (i.e. with MSC logo)
- Non-labelled MSC Scottish North Sea haddock (i.e. without MSC logo)
- Non-MSC Scottish haddock (i.e. from West Scotland, Rockall and all other ICES Divisions other than the North Sea)
- Non-Scottish haddock (i.e. Icelandic, Norwegian etc. which may or may not have MSC logo)

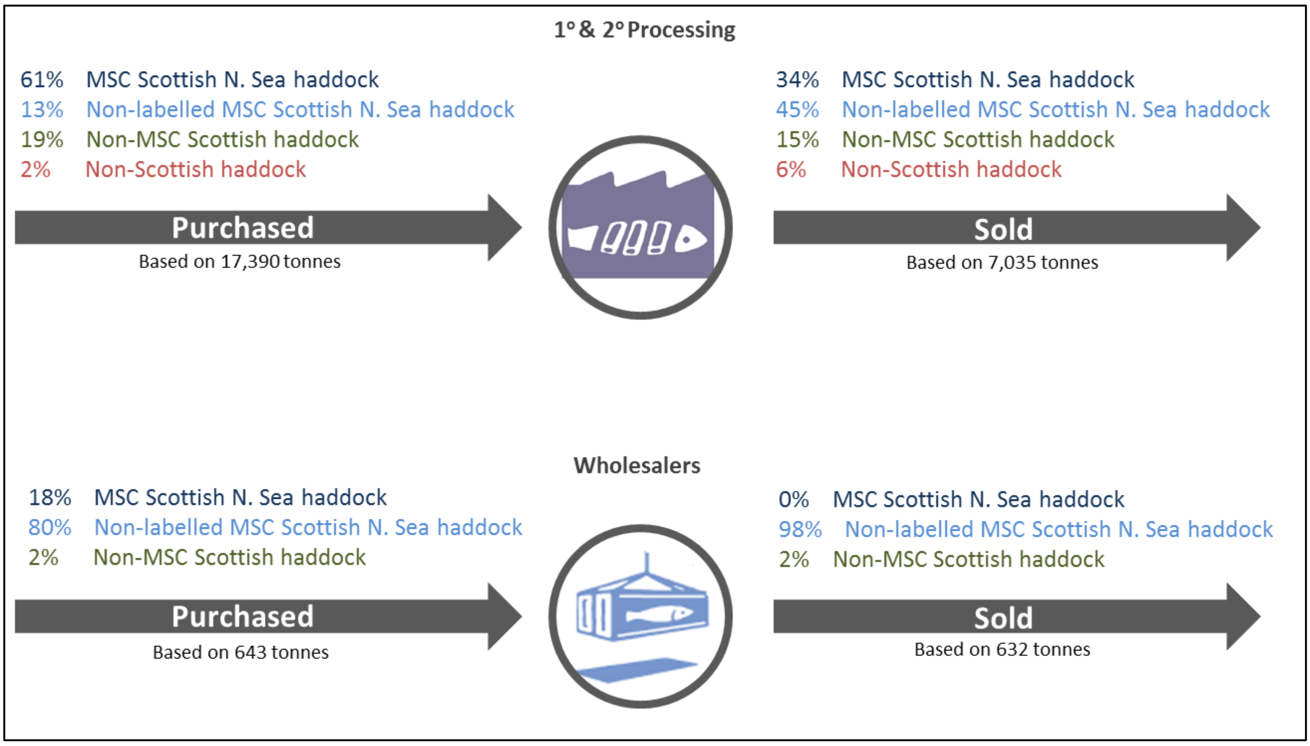


Figure 4.2: Proportion of Scottish haddock purchased and sold as MSC, non-labelled MSC and non-MSC by primary and secondary processors (top) and wholesalers (bottom) in 2013.

Of the Scottish NS haddock purchased by primary and secondary processors in 2013, 61% was labelled as MSC and 13% was not labelled as MSC. The proportion not labelled was largely sourced by secondary processors, as primary processors generally buy direct from market which by default is sold as MSC. Some of the secondary processors interviewed stated that their suppliers (1° processors or wholesalers) do not carry Chain of Custody, which is why they cannot use the MSC logo.

Figure 4.2 indicates the tonnage entering and leaving primary and secondary processors. The large reduction in volume leaving this stage is due to whole fish being filleted (conversion is approximately one third of whole fish leaves as filleted fish). It is also noted that the proportion of non-Scottish haddock leaving the primary and secondary processors is larger than the proportion entering, this is because it has entered the supply chain as fillets.

Interestingly, the proportion of MSC labelled Scottish NS haddock drops by around half to 34% of the total haddock sold by 1^0 & 2^o processors, while the non-labelled increases three-fold to 45%. This is due to a lack of MSC Chain of Custody driven by a lack of demand from their customers.

The wholesalers interviewed sourced significantly less MSC labelled Scottish NS haddock (18%), with 80% being non-labelled. These wholesalers are therefore purchasing the majority of Scottish NS haddock from 1^o processors and not directly from auction where it would carry the MSC logo. All of the MSC Scottish NS haddock was sold to clients without the MSC label. This was again due to lack of MSC Chain of Custody (by the wholesalers and/or their clients) and/or lack of demand.

4.3 STAGE III – CONSUMPTION

Three supermarkets were interviewed as part of this study: Marks and Spencer, Sainsbury's and Waitrose. All, except Waitrose, sell Scottish NS haddock. Marks and Spencer label the majority of products with the MSC logo (~91%), but not all, based on the proportion of haddock within the overall product sold (e.g. breaded with chips etc.). All Sainsbury's Scottish NS haddock products have the MSC logo.

4.4 SUPPLY CHAIN ANALYSIS

An analysis of the proportion of MSC labelled and non-labelled Scottish NS haddock at each stage of the supply chain is presented in Figure 4.3 (describing the chain for those businesses interviewed) and Figure 4.4 (the total supply chain estimated from the collated information). Figures for tonnage have been scaled to represent landing weight equivalents based on the assumption that filleted haddock equates to one third of whole landed haddock (this proportion was repeatedly mentioned during consultation).

Figure 4.3 follows the 14,763 tonnes of landed whole haddock that interviewees accounted for through its supply chain, while Figure 4.4 follows 23,000 tonnes (based on 2012 landings). The following assumptions (based on consultation) are made to derive the total supply chain analysis:

- 90% of haddock enters the wholesalers stage via primary or secondary processors, and 10% comes direct from the market;
- 70% of Scottish NS haddock enters primary and secondary processors that hold MSC Chain of Custody (note: that is not to say that 70% of businesses hold MSC CoC); and
- 75% of Scottish NS haddock enters the food service sector and 25% enters retail.

The percentage split between retail and the food service sector is informed by consultation. It is noted that the Seafish (2004) value chain analysis found 58% of UK haddock (including imports, but excluding exports) was destined for retail, and 42% for the food service sector. The difference for Scottish NS haddock is likely to be due to the product form being fresh and therefore favourable to the catering trade, which for Scottish haddock is dominated by fish and chip outlets.

The total supply chain analysis indicates that in the retail sector approximately 81% of Scottish NS haddock is sold with MSC label,, compared to only around 3% in the food service sector. Together, this amounts to 5,153 tonnes, 22% of the total haddock landed, equating to just under £6 million in first sales value.

The difference in total MSC product leaving the processing stage and total sold as MSC to consumers is due to supermarkets and food service sector purchasing MSC, but not always using the MSC logo.

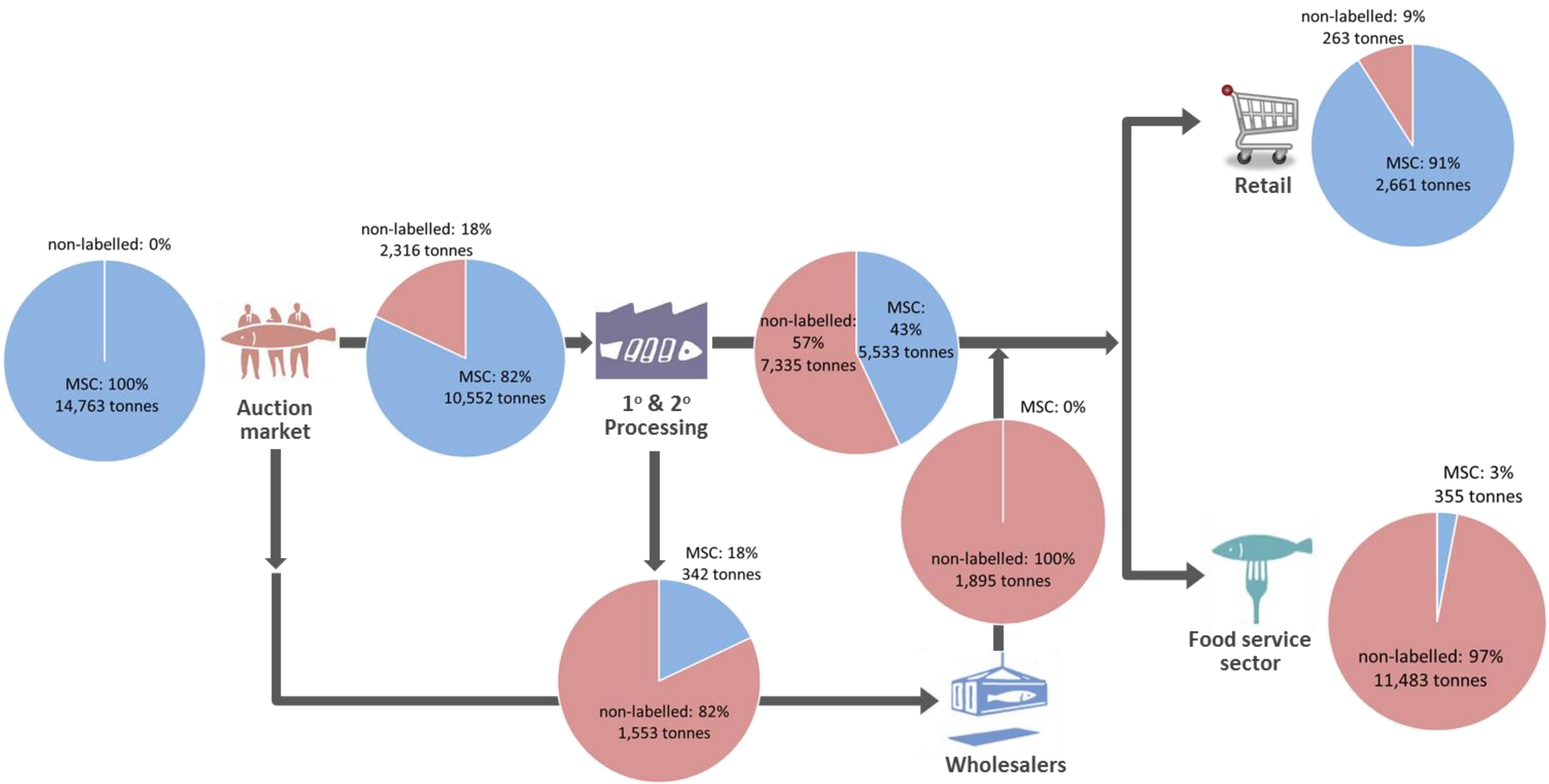


Figure 4.3: Supply chain analysis based on data collated during interviews only, indicating tonnage as landed weight equivalent

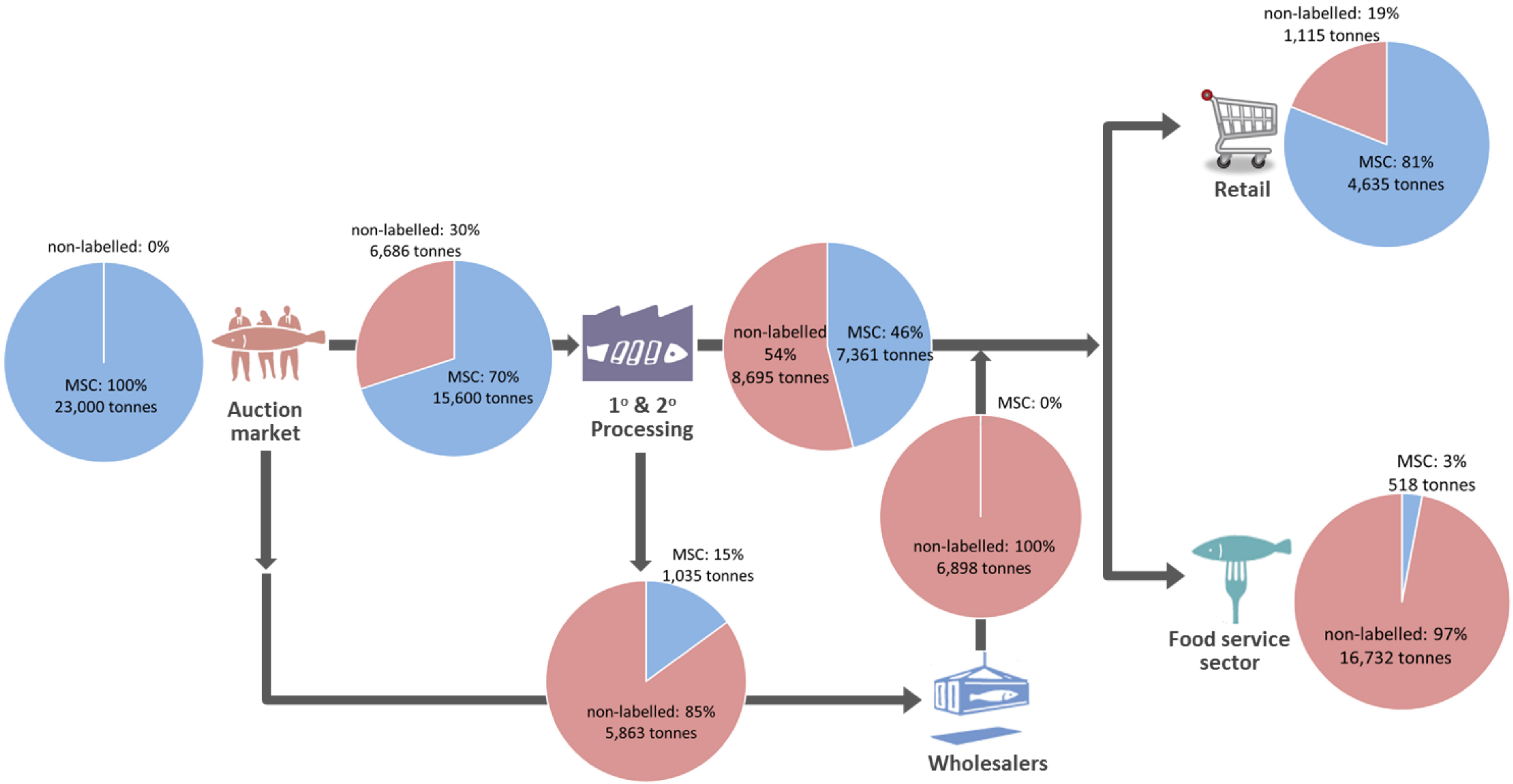


Figure 4.4: Total supply chain analysis, indicating tonnage as landed weight equivalent

5 BENEFITS OF MSC CERTIFICATION

Within this section the direct and indirect economic and social benefits of certification are discussed for the Scottish NS haddock main supply chain links. A summary of potential benefits to each of the main supply chain stakeholders is presented in Table 5.1.

Table 5.1: Summary of potential direct and indirect benefits from certification

	Expected benefit	Fishers	1° & 2° Processors	Retailers/ food service	Consumers	Government / NGOs
Direct	Price increases	✓	✓	✓		
	Maintaining and growing market share	✓	✓			
	Market stability and security	✓	✓	✓		
	Product differentiation and future- proofing	✓	✓	✓		
Indirect	Improved public image and reputation	✓	✓	✓		✓
	Improved traceability	✓	✓	✓	✓	✓
	Better knowledge of provenance/source		✓	✓	✓	

5.1 DIRECT BENEFITS

5.1.1 Price premiums – first sales and processing sector

Achieving a price premium may have formed part of the initial motivation for some seeking MSC certification. Drives towards achieving higher prices may trigger defensive action of other fisheries of that species or stock to ensure their continued access to markets. Often this effect may cause a short term increase in price for those first to be certified, returning to 'business as usual' as other fisheries targeting that stock achieve certification. Such a trend is very difficult to present with quantitative data due to the number of factors impacting price at each stage of the supply chain, not least the recent global recession. For the haddock fishery North Sea prices should not be compared with Norwegian or Icelandic MSC-certified haddock, as the latter are frozen at sea, typically on longer trips and therefore an overall lower cost, while the NS stock is principally a fresh market.

Price data collated as part of the Registration of Buyers and Sellers has been provided by Marine Scotland for haddock landings from 2009 to 2012. These data enables an in-depth analysis of haddock first sale prices by stock, month, vessel nationality and size grade. It is therefore possible to track trends for Scottish, English and Northern Irish vessels landing North Sea haddock of the same size and in the same season to explore any relationship between price and MSC certification[5].

Scottish, English and Northern Irish first sales price data for haddock by size grade were analysed as a regression over the time period from Jan 2009 to Dec 2012 and separately for the period post certification (Oct 2010 to Dec 2012). The resulting correlation coefficient (R^2) was used to define whether there is a relationship or trend between price and time. For example if $R^2 \geq 0.6$, there was considered to be a strong relationship, if $R^2 \geq 0.4$ a moderate relationship, if $R^2 \leq 0.2$ a weak relationship and if $R^2 \leq 0.1$ a very weak relationship.

The linear regression models for haddock size grades 3 and 4 (that form the majority of the catch by weight) are presented in Figure 5.1, and in Figure 5.2 for size grade 1 and 2. Table 5.2 provides the correlation coefficient (R^2), together with the standard deviation and standard error for each of the relationships analysed.

[5] Although it is noted that some non-Scottish vessels are included within the MSC certificate, the volumes landed are not expected to significantly affect the overall analysis into price variations.

The correlations for all size grades and vessel nationalities are weak ($R^2 \leq 0.2$) or very weak ($R^2 \leq 0.1$) indicating that there is unlikely to be a relationship between price and time when considering both the full time period (Jan 2009 to Dec 2012) and the certification time period (Oct 2010 to Dec 2012).

In addition there is no difference between standard deviations for nationalities studied within each size grade (Table 5.2:) i.e. the variation between prices for the Scottish vessels is similar to the variations experienced by the English and Northern Irish landings.

Table 5.2: Average prices, top price, correlation coefficient (R^2), standard deviation and standard error relating to graphs depicted in Figure 5.1 and Figure 5.2 for the time period Jan 2009 to Dec 2012

Size grade	Nationality	Average price £/kg	Top price £/kg; month	R^2	Standard Deviation	Standard Error
4	Scottish	£0.91	£1.39; Apr'11	0.092	0.19	±0.03
	English	£0.87	£1.38; May'11	0.147	0.22	±0.03
	Northern Irish	£0.73	£1.13; Jan'11	0.102	0.19	±0.03
3	Scottish	£1.33	£1.74; Apr'10	0.033	0.18	±0.03
	English	£1.23	£2.34; Apr'12	0.002	0.30	±0.04
	Northern Irish	£1.06	£1.61; Jan'11	0.004	0.22	±0.03
2	Scottish	£1.64	£2.17; Apr'10	0.073	0.22	±0.03
	English	£1.56	£2.67; Aug'12	0.144	0.35	±0.05
	Northern Irish	£1.30	£1.83; Jan'11	0.208	0.35	±0.05
1	Scottish	£1.92	£2.54; Dec'11	0.013	0.26	±0.04
	English	£1.80	£2.48; Jul'12	0.013	0.32	±0.05

While the linear regression and data above shows weak relationships between prices over time, there are noticeable trends evident within Figure 5.1 and Figure 5.2. For size grade 4 across the full period (Jan 2009 to Dec 2012) an overall slight increase in price is seen; while for the post certification period a downward trend is noted. Essentially prices have increased to a point (around Oct 2010 to Apr 2011) before dropping again, which explains the downward trend noted post certification. These trends are consistent across Scottish, English and Northern Irish vessels and therefore any price variation cannot be attributed to MSC certification (which is only applicable to Scottish vessels). Size grade 3 haddock prices show an overall downward trend for both the full study period and post certification period; again the trends are mirrored for each nationality.

Scottish and Northern Irish vessels landing size grade 2 haddock show an overall downward trend (for full period and post certification period), however English vessels show an increase in price over these time periods. This is also the case for size grade 1, where the price achieved by English vessels has increased at a higher rate than Scottish vessels. This may be due to the markets for size grades 1 and 2 which tend to focus on the food sector and restaurant trade. Either way, no price differential is apparent as a result of the Scottish vessels landing MSC haddock.

This data and analysis concludes that there are no price premiums attributable to MSC certification at first point of sale.

The large majority of consultees interviewed as part of this study corroborate these findings, stating that no price premium has been evident since the haddock fishery achieved MSC certification. In particular fish selling agents advised that it would be impossible to attribute price changes to any one factor given the price variation with availability of supplies. However, one key consultee, that purchases up to 40% of Scottish NS haddock quota and supplies a major UK retailer sourcing MSC products, did cite a price premium of up to 10% for first sale value and up to 10% for onward sale to secondary processors requesting Scottish MSC haddock, and this has remained consistent since date of certification.

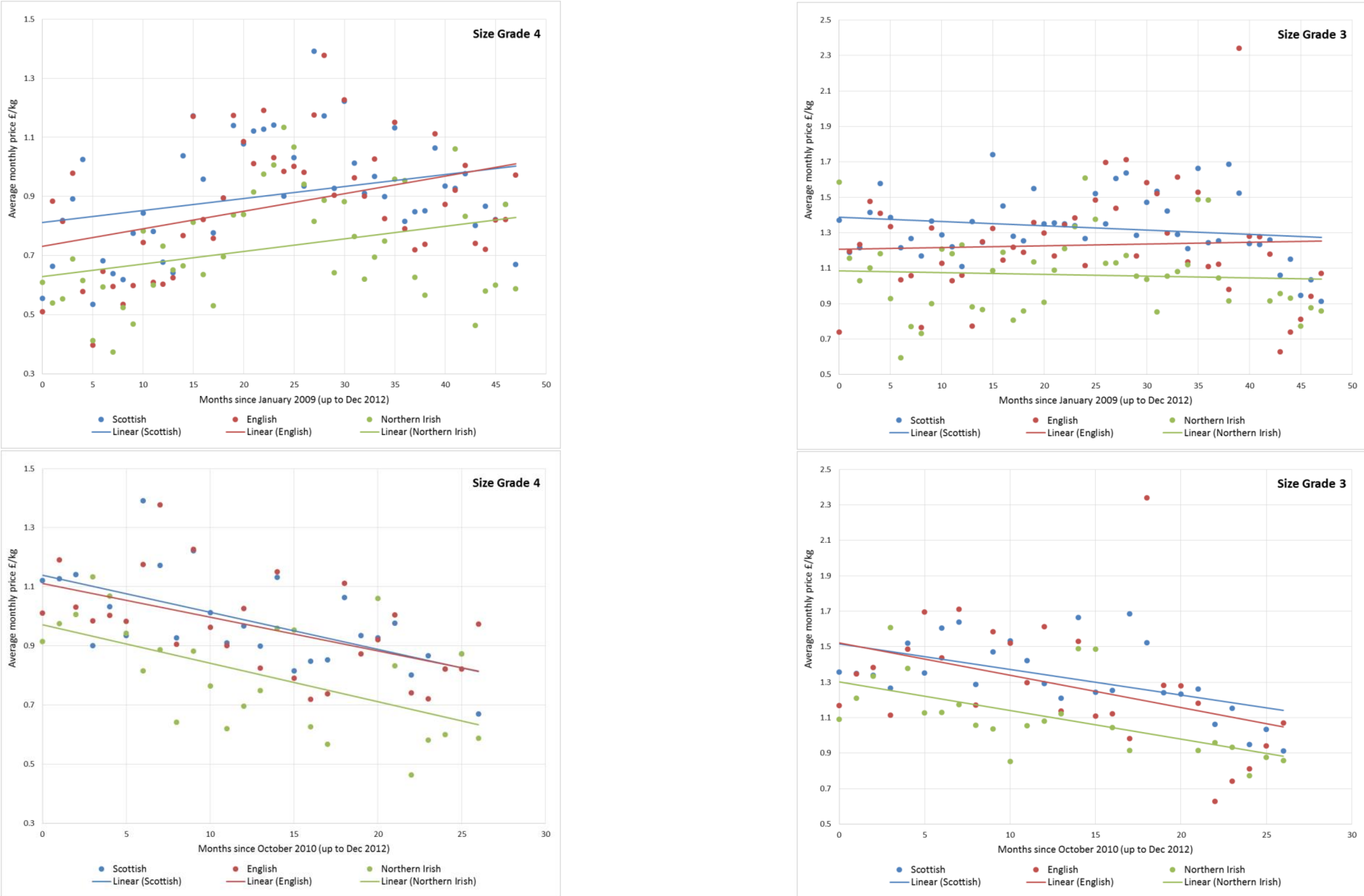


Figure 5.1: Regression of time series data for average monthly prices of haddock landings into Scotland from IVa + IVb by vessel nationality for the full time series Jan'09 to Dec'12 (top) and post certification Oct'10 to Dec'12 (bottom) for size grades 4 and 3.

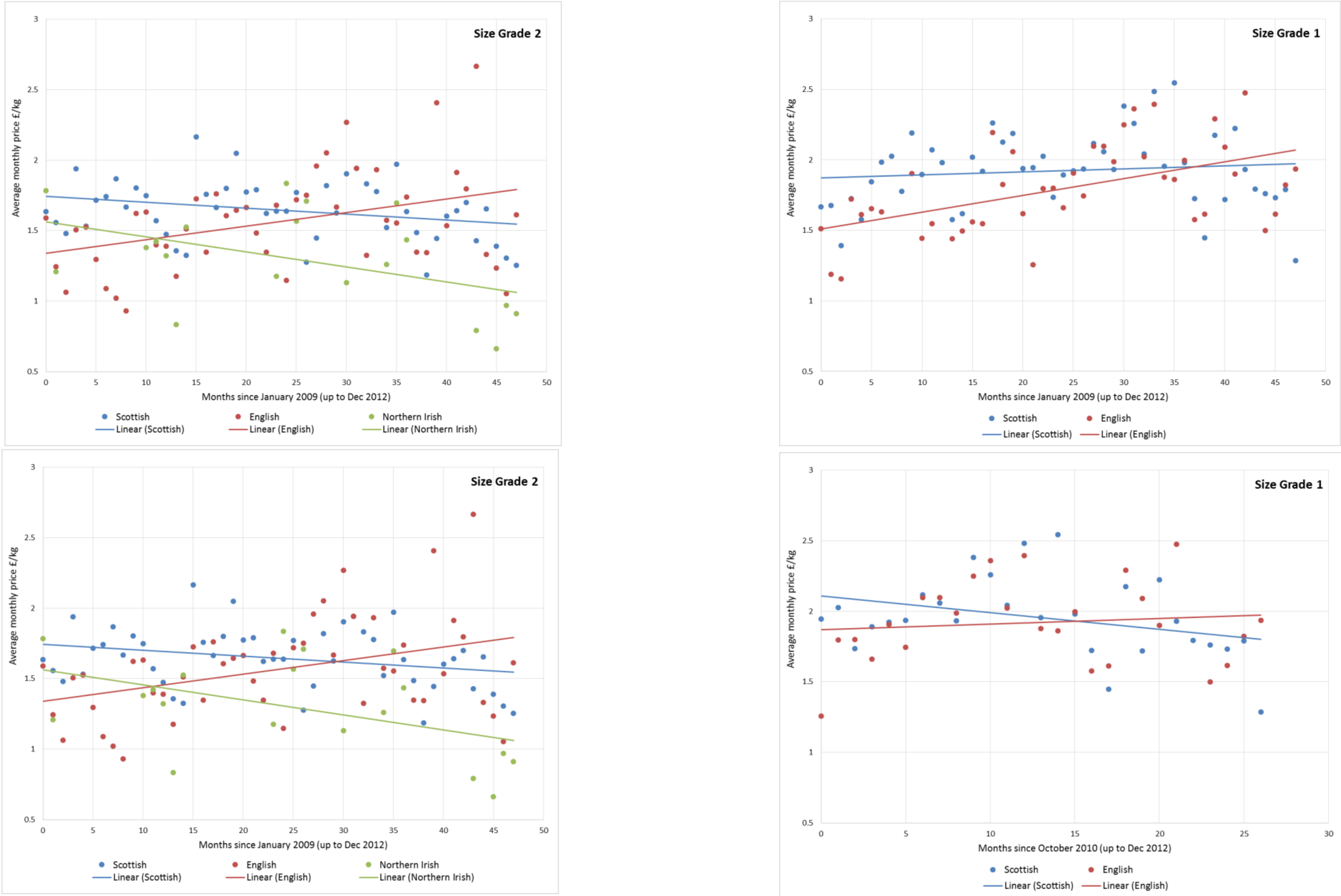


Figure 5.2: Regression of time series data for average monthly prices of haddock landings into Scotland from IVa + IVb by vessel nationality for the full time series Jan'09 to Dec'12 (top) and post certification Oct'10 to Dec'12 (bottom) for size grades 2 and 1.

5.1.2 Price premiums – retail sector

Marks & Spencer's Scottish NS haddock is primarily sold as chilled, processed products, including: battered, breaded, lightly dusted and smoked fillets or mini-fillets. Sainsbury's Scottish NS haddock is in the form of battered fillets and smoked gratins; and Asda sell MSC labelled Scottish NS haddock as microwavable meals. Cesar, Sheba and Nestle sell pet food with MSC labelled Scottish NS haddock. All other MSC Scottish NS haddock is sold without MSC logo. Most chilled non-processed fillets sold within supermarkets are sourced from Iceland or Norway. The different product forms of Scottish NS haddock together with the fact they are often sold as part of meals make it impossible to attribute any price differential as a result of MSC.

One of the supermarkets interviewed cited that costs associated with MSC certification and logo are built into the cost price of the product. While another stated that all MSC associated costs are taken as an overhead by the company and not transferred to customers.

From 2011 to 2013 the average price of all chilled seafood has increased by 2.8%, and this growth is driven by inflation and increased purchase quantities per shopper. From 2011 to 2013 the overall volume of haddock purchased by customers dropped due to a fall in the level of frozen haddock purchased (-11%), while chilled haddock sales grew by 1%. The value of chilled haddock reflects this growth (i.e. ~1%), although prices per kg have remained more-or-less consistent (Figure 5.3).

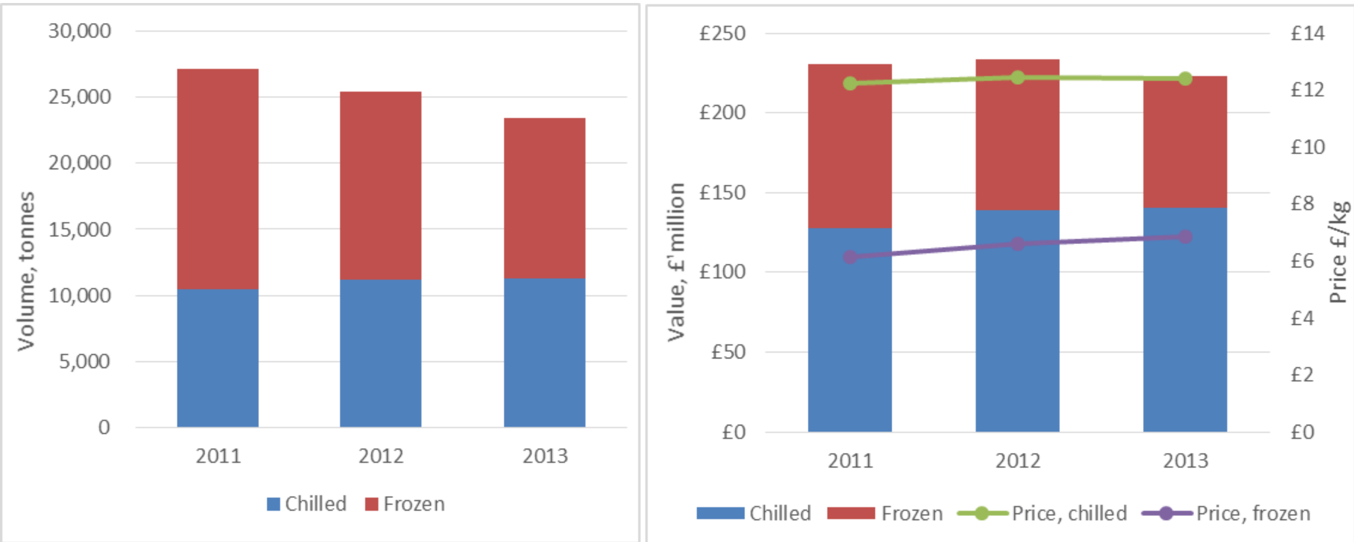


Figure 5.3: Total volume, value and price of chilled and frozen haddock sold by retailers from 2011-2013 (Source: Nielsen Scantrack, 2014)

There have been drops from 2011 to 2013 across all frozen haddock product types, except those sold as meals in a sauce and fishcakes. Chilled prepared and natural haddock and chilled fishcakes make up the majority of chilled sales (52%). The increases in sales of chilled haddock is due to prepared haddock and chilled fishcakes increasing as sales of chilled natural products have reduced significantly (Figure 5.4).

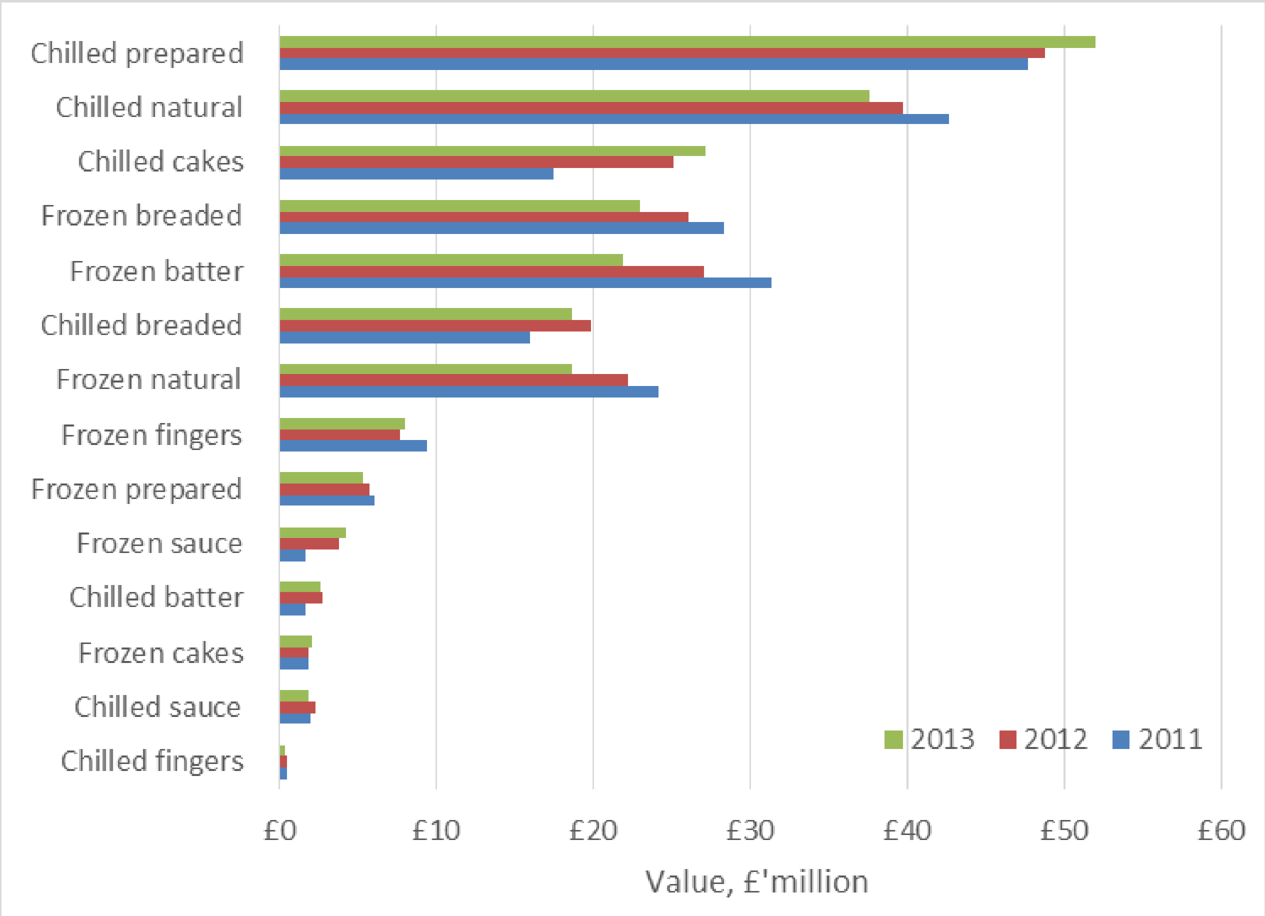


Figure 5.4: Value of chilled and frozen haddock by product form sold by retailers from 2011-2013 (Source: Nielsen Scantrack, 2014)

Research has shown that economic criteria dominate consumers' food choices. From 2012 to 2013 the importance of price and quality went up shoppers' agenda when they are choosing between products (Figure 5.5). In addition, compared to 2012 customers are more willing to pay extra for products with quality assurance standards and products that are locally sourced.

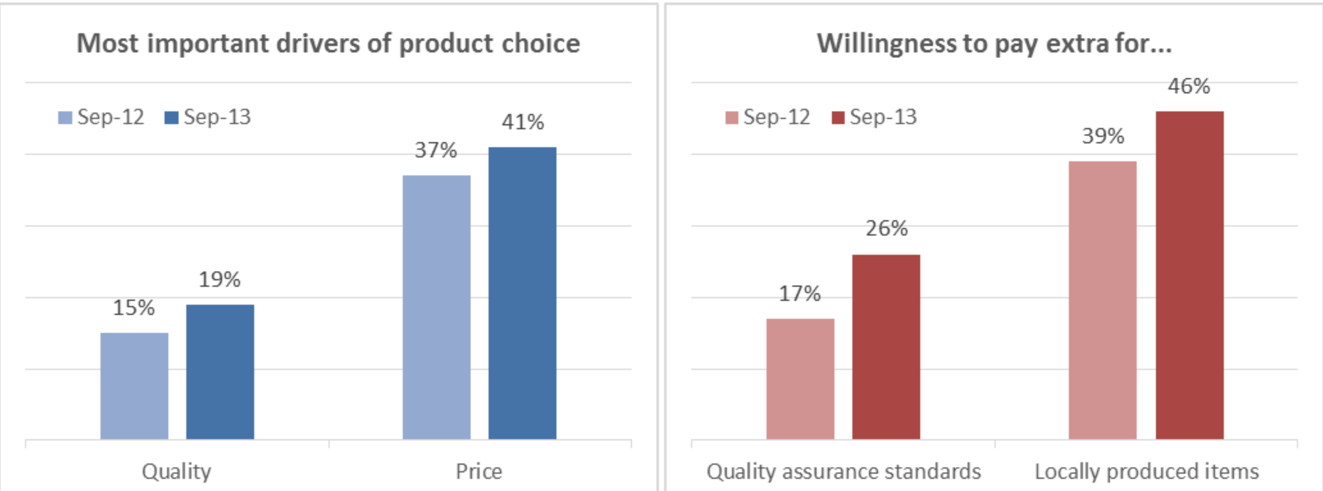


Figure 5.5: Growing importance of shoppers' value equation (Source: IGD ShopperVista, cited Seafish, 2013)

From a European perspective, the Seafood Choices Alliance carried out a poll of consumers, supermarkets, chefs and restaurateurs throughout Europe on attitudes toward seafood and the ocean (SCA, 2005):

- 79% said that the environmental impact of seafood is an important factor in their purchasing decisions.
- 86% of consumers would prefer to buy seafood that is labelled as environmentally responsible; 40% are willing to pay 5-10% more for seafood identified as eco-friendly.
- 95% of consumers and 85% of seafood professionals say they want more information about how to buy sustainable seafood
- 54% are aware of turtle and dolphin by-catch and overfishing in general.

There is, however, a widely recognized gap between what consumers say they do on ethical issues and how they actually act – a Cooperative Bank survey found that of the 80% of consumers who claim to shop or invest ethically, only 30% 'practice what they preach' (Key Note, 2002).

Any discussion about the benefits of certification to producers and businesses in the supply chain is closely linked to considerations of consumer demand. In general, results have indicated that consumers will buy eco-labelled products, as long as the price premiums are not too large.

5.1.3 Maintaining and growing market share

In recent times the driver for obtaining MSC certification is more commonly thought to be focused on securing existing market share and gaining new or improved market access.

Many retailers including Sainsbury's and Marks and Spencer's have committed to sourcing fisheries products from sustainably certified sources. Generally, these certified sources are cited as "MSC or equivalent", but in reality there are no other independent third party certifications that are equivalent or would be accepted in relation to a UK fishery. For retailers the increasing desire for certified products, and the resulting benefits, is based around three drivers:

1. Long-term planning horizons including the need to ensure future, reliable supply,
2. Desire to avoid bad press or lobbying by NGOs related to sourcing from unsustainable supplies, and
3. Perceptions about consumer demand which in turn provides marketing opportunities and the potential for market segmentation.

This presents the potential for a real market reward for sustainable fishing, although could be seen as effectively forcing suppliers into the certification process.

With respect to the Scottish NS haddock fishery, M&S had sourced this product pre-MSC certification – their Plan A and Fish Forever campaigns encourage and support existing suppliers in becoming sustainably certified. Sainsbury's had not previously sourced Scottish NS haddock, but since MSC certification have brought this product into their portfolio.

These are clear examples of maintaining market share and gaining new market access for the MSC certified Scottish NS haddock within the UK retail market. Both supermarkets have cited that they would source alternative MSC certified haddock (e.g. Norwegian or Icelandic) if the Scottish NS haddock fishery is no longer MSC certified; this is irrespective of whether the fishery decides not to re-certify after the initial certification five-year period, or if the fishery is suspended from MSC for any reason. Currently up to 30-40% of the Scottish NS haddock landings (specifically for size grades 3 and 4) are supplied to these customers.

In terms of trends in purchasing since the certification of Scottish NS haddock as MSC, the majority (60%) of respondents stated there has been no change in either the quantity or source of haddock purchased. Four respondents cited change due to other factors, including improved quality due to reduced trip durations and a move to purchasing more from Peterhead due to quota restrictions elsewhere. Only two respondents changed their purchasing patterns as a result of the Scottish NS haddock fishery achieving MSC certification: one increased supply from Peterhead by 20% and the other formed a new market for fishery (both these respondents are linked to the supply chain for the retailers discussed above).

Furthermore, when asked what about the consequences of Scottish NS haddock no longer being MSC certified, 38% of respondents stated they would source MSC haddock from elsewhere (Iceland or Norway), while the remainder said there would be no change in their buying patterns.

Maintaining market share and gaining new access is less pronounced within the food service industry. From the interviews conducted with secondary processors and wholesalers it is clear that the MSC certification is generally not as important within the restaurant and fish and chip shop trade, where more emphasis is placed on the Marine Conservation Society (MCS) Fish Online guides[6].

Individual restaurants and fish and chip shops do champion MSC and pay the associated licence costs for logos on menus or fish & chip boxes; however those interviewed stated they would continue to source Scottish NS haddock if it was no longer MSC certified, as long as it remained within the MCS recommended fish list[7]. This is also the case for suppliers of the catering services interviewed. Some supply universities where they note that students are more aware of provenance and sustainability than other consumers. However for this segment of the supply chain, sustainability credentials do not need to be third party certified and Scottish origin is as important, if not more important.

Further evidence of this was provided as part of the questionaire when interviewees rated factors important to their haddock purchasing decisions (Figure 5.6). Quality and freshness ranked first with 92% of respondents citing this as very imporant, and the remainder finding it quite important; reliability of supply came in second with 75% stating it is very important; the majority (58%) also found price to be very important in they purchasing decisions. Quantity, sustainability of supply and Scottish origin were also important, but not as crucial as the other factors; 84% rated sustainability of supply as very or quite important, compared to 75% for Scottish origin and 59% for quantity.

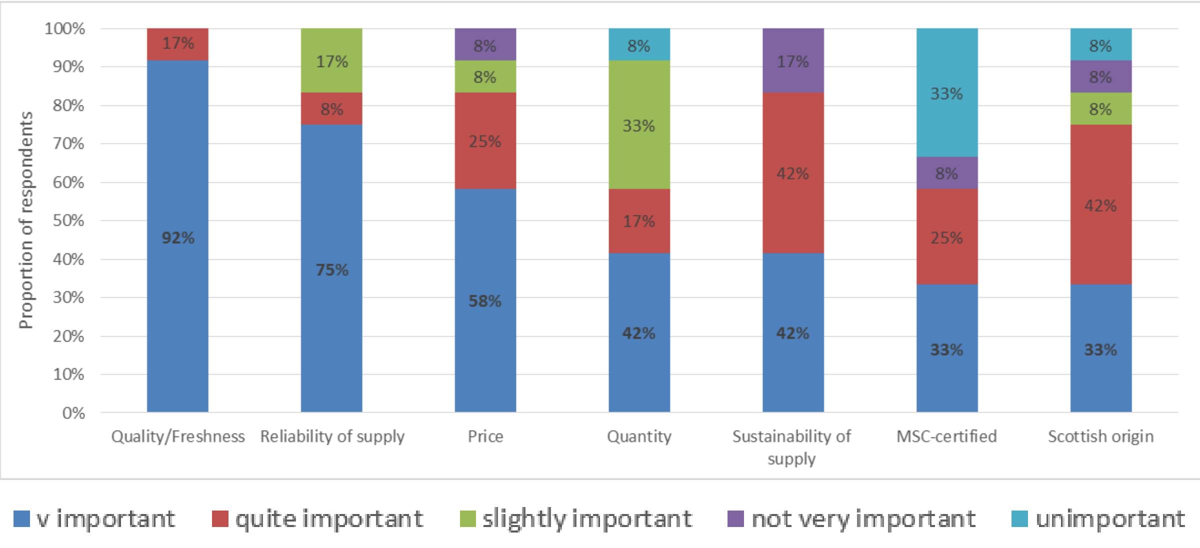


Figure 5.6: Factors important in haddock purchasing decisions

[6] See http://www.fishonline.org/fishfinder?fish=haddock

[7] Customer confusion between MCS and MSC was also noted.

MSC certified ranked the lowest of factors considerd in purchasing decisions, with 41% citing it as unimportant or not very important. This compares to 17% for sustainability of supply which implies that while sustainability may be important, third party certification is less so. When asked how respondents determine sustainability of supply when not third party certified, the majority (64%) found that legal landings within the EU framework of quotas and management were sufficient to ensure sustainability. One cited MCS and three (retailers) had their own sustainability sourcing criteria.

5.1.4 Stability and security to the fishery

As stated above, up to 30-40% of the Scottish NS haddock landings are sourced by processors whose clients specifically seek MSC certified products. These tend to be the smaller fish (size grades 3 and 4) which are processed as 2-3 layers of thin fillets within a breaded / battered product. Restaurants and fish and chip shops tend to purchase the larger sizes of fish to provide single fillet portions.

If the fishery was no longer MSC certified then processors would source MSC haddock from other sources rather than purchasing the majority of smaller grade NS haddock on Scottish markets. This could have a severe impact on the stability and security provided to the market from the bulk purchase of this smaller grade haddock. One processor cited that this could be a catastrophic impact to both their business and the Scottish haddock sector as a whole.

With the loss of the market withdrawal price and therefore no minimum price for the smallest grade of haddock, the stability provided by processors seeking MSC certified smaller grade haddock becomes increasingly important for the future security of the fishery.

5.1.5 Product differentiation and future-proofing

A number of consultees stated MSC as a useful product differentiation tool and unique selling point to promote to customers, regardless of whether the product is branded with the MSC logo.

Over half (56%) of the respondents use MSC or ‘sustainability’ as a selling point for their products, even when they are not selling MSC-labelled Scottish NS haddock. Some find it more important as assurance between business to business within the supply chain, while others use it as part of marketing to their clients/consumers. As mentioned, many communicate the sustainability of this MSC fishery while not using the MSC logo; the principal reason for this is due to the cost associated with the logo licence fee. One supermarket uses the MSC logo for 100% seafood products and products where fish is the key ingredient e.g. coated (breaded & battered), but not where there are other items within the meal (such as chips), as the logo licence fee is 0.5% of the entire product.

MSC certification provides the advantage of future-proofing the fishery to ensure all current and forth-coming possible market opportunities can be realised. For example, the Glasgow 2014 Commonwealth Games have adopted a food procurement policy that actively endorses Scotland's MSC-certified fish products. The London 2012 Olympic Games had a similar fish-buying policy that sourced MSC certified fish and shellfish, as does the future Rio 2016 Olympic Games. By being MSC certified the Scottish NS haddock fishery is open to such opportunities to both supply and promote their produce.

Wider political influences may impact the sourcing of certain exports, for example in relation to mackerel quota, the EU sanctions against Iceland and the Faroese may be extended leading to some EU countries banning their white fish exports. This would force UK retailers to source MSC certified haddock from elsewhere, such as Scottish NS haddock. As some retailers are committed to specifically sourcing MSC, this would represent a great opportunity for Scottish NS haddock that would otherwise be missed if not MSC certified.

5.2 INDIRECT BENEFITS

5.2.1 Improved public image and reputation

The overwhelming majority (85%) of respondents found MSC certification to have improved the reputation of the Scottish NS haddock fishery and Scottish fisheries as a whole. This was found regardless of the respondents' position on MSC, for example those that did not sell MSC labelled products and generally did not support MSC, still found it to have improved the fishery's reputation.

The main reasons given were that MSC certification validates the work that has been done by the Scottish industry and gives proactive fishermen a means to demonstrate their good work and show that the industry is operating sustainably. Others felt that it was important for consumer confidence, in light of the recent horsemeat scandal.

All respondents interviewed felt that the Scottish NS haddock fishery should remain within the MSC certification scheme, as leaving it could damage the industry's reputation, particularly from an NGO perspective.

Reputational benefits of the MSC certification within the Scottish NS haddock fishery have also assisted in bolstering Scotland's political credibility and, according to one key UK NGO, has to a certain extent benefited Scotland's negotiating powers at an EU/Brussels level during quota and management discussions.

5.2.2 Improved traceability

Of the consultees interviewed 75% hold MSC Chain of Custody (CoC) for Scottish NS haddock and 63% hold MSC CoC for other species, namely herring and other MSC certified haddock.

As part of CoC complete traceability is required throughout the supply chain, and companies must ensure that MSC fish are kept separate from other non-MSC certified species. This has the indirect effect of significantly improving the entire administration, documentation and reporting framework for companies that hold MSC CoC. Often when systems are updated to handle CoC requirements for one species, it is rolled out across all species thereby improving traceability throughout the sector.

Improved traceability was specifically noted by WWF as a key indirect benefit resulting from the MSC certification of the Scottish NS haddock fishery.

5.2.3 Better knowledge of provenance/source

As demonstrated in Figure 5.5 consumer awareness of provenance and local sourcing is increasing with 46% of consumers in 2013 prepared to pay extra for local produce (a rise of 7% compared to 2012).

This was also reflected during the consultation process with 82% of respondents finding Scottish origin to be important to some degree (Figure 5.4): 19% rated it important, but less so than sourcing MSC products, while 44% found Scottish origin to be more important than MSC.

One or two respondents would like to see the development of Scottish branding for wild capture fisheries. These and other consultees found the MSC logo licence fee, together with other MSC related costs (see below) to be a barrier to using and promoting MSC. However, retailers and NGO's are unlikely to support this as

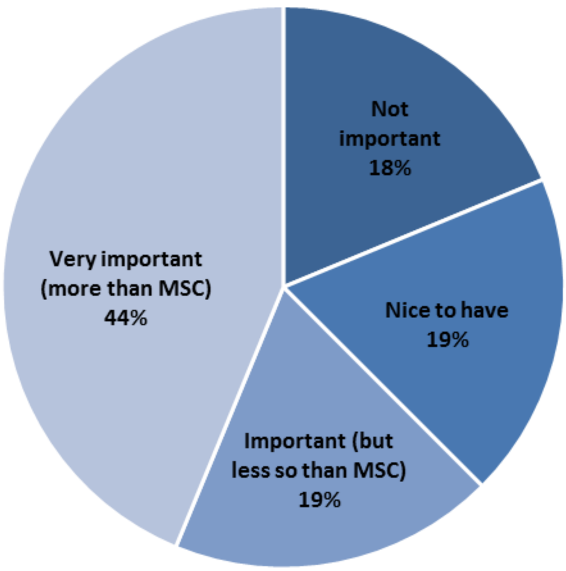


Figure 5.7: Importance of Scottish origin to stakeholders within the Scottish NS haddock supply chain

an alternative to MSC as no other accreditation scheme has yet been able to match the rigour and transparency of the MSC certification process.

5.3 ARE BENEFITS OF MSC WORTH THE ASSOCIATED COSTS?

The costs of achieving MSC certification and maintaining the certificate have not been considered within this report, but can broadly be summarised as follows:

- Pre-assessment (one-off)
- Full assessment (one-off)
- Surveillance audits (annual)
- Re-assessment (every five years)
- Chain of Custody assessment (one-off)
- Chain of Custody audit (annual)
- Traceability related administration (continuous)
- MSC logo licence fee (0.5% of product price; continuous)

A summary of the benefits outlined within this report, together with some additional environmental considerations and the above costs are presented for each stage of the supply chain in Figure 5.8.

In relation to Chain of Custody and logo licence fees, for the respondents interviewed the costs were found to be on average 0.3% of the value of haddock sales (ranging from 0.04-0.5%), and a negligible proportion of total turnover.

Generally the consultation indicated that the costs are worth the benefits brought about by the Scottish NS haddock fishery being MSC certified. Although two respondents had recently decided to cease Chain of Custody as clients were either not interested in MSC and/or not prepared to pay price premiums for MSC products.

Some processors felt that the MSC certification of haddock had been put upon them without much consultation or warning and the expectation for them to obtain MSC Chain of Custody and modifying their traceability procedures was not worth the perceived benefits of MSC.

However, most respondents supported future MSC certification for other species, namely cod and whiting. These included stakeholders from all stages of the supply chain, covering: fish selling agents, processors, wholesalers, retailers, government and NGO’s. Future MSC certification of cod was mentioned frequently as a means of demonstrating sustainability and best practice within the Scottish industry.

Benefits of MSC Certification to the Scottish North Sea Haddock Fishery

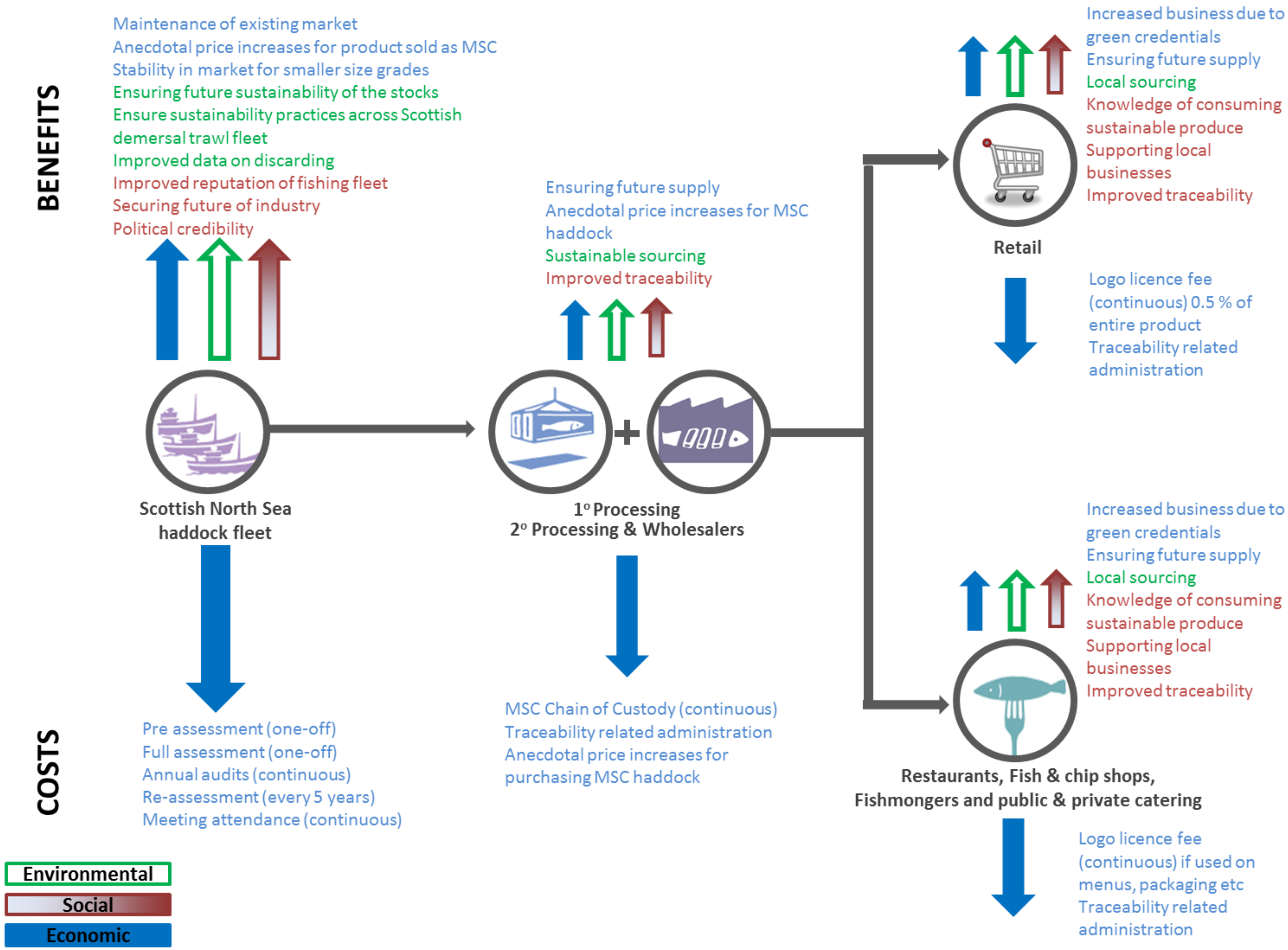


Figure 5.8: Summary of costs and benefits of MSC certification in the Scottish North Sea haddock fishery

6 CONCLUSIONS

No price premiums are identified that could be attributable to MSC certification when comparing first hand sales values for landings into Scotland of North Sea (IVa and IVb) haddock by Scottish vessels (i.e. MSC certified) with English and Northern Irish vessels (i.e. not MSC certified).

Consultation consistently highlighted the price variations for NS haddock on a daily and monthly basis and attributed this to the availability of supplies and associated demand, and not to the MSC status of North Sea haddock.

It is not appropriate to compare prices of North Sea haddock with other Scottish haddock fisheries as fish quality and/or meat yield/content are different at similar times of the year due to variations in spawning periods for the different stocks. Similarly it is not appropriate to compare prices for Scottish MSC haddock landed fresh into Scotland with other MSC certified haddock (Norway, Iceland) purchased frozen.

Anecdotal evidence suggests that some processors and wholesalers will pay up to an additional 10% for MSC certified haddock. This increased price is transferred at the same rate to stakeholders further along the supply chain when products are branded as MSC. Consultation indicated that no price premiums are achieved for non-labelled MSC Scottish NS haddock.

There is clear qualitative and quantitative evidence to demonstrate that the MSC certification of NS haddock has both maintained market share and given access to new markets. This is predominately within the retail sector, with only a few smaller cases within the food service sector.

30-40% of haddock sales from stage II of the supply chain are of branded MSC Scottish NS haddock. There is a risk that this market share would be significantly affected if the fishery was no longer MSC certified as current buyers would source alternative MSC haddock if NS haddock was no longer MSC certified. This represents the smaller grade haddock which form the bulk of the landings, but do not principally enter the food service sector. Loss of this market share could therefore bring instability to the Scottish NS haddock market place. This will be of increasing relevance with the removal of the EU minimum withdrawal price.

At stage III of the supply chain, approximately 22% of total Scottish NS haddock sales to consumers are branded with the MSC logo; this equates to just under £6 million in first sales value in 2012.

Other benefits explored within this study include the opportunity that MSC provides in future-proofing the fishery, with events (such as Glasgow 2014 Commonwealth Games) and institutional buyers adopting sustainable fish-sourcing policies.

MSC is considered to have greatly improved and promoted the reputation of Scottish fisheries both in terms of validating the work undertaken by the industry and raising consumer confidence, as well as providing extra political credibility.

A range of other indirect benefits were cited during this study, including the importance of promoting Scottish origin and improved traceability systems as a result of the Chain of Custody procedures. There is clear support throughout the supply chain for future fisheries to enter MSC assessment, particularly cod and whiting.

It is acknowledged that the MSC process has a significant cost, both in terms of the fishery certification and Chain of Custody. There is potential to explore alternative funding of the assessment process from the key retailers that have driven MSC certification for the haddock fishery and who represent the new and maintained market share evidenced within the report. There is also potential to explore group Chain of Custody within processors and wholesalers to minimise costs and limit barriers to products being MSC branded.

Overall, the strong recommendation from this work is for the Scottish NS haddock fishery to remain within the MSC certification scheme.

7 PROPOSED FOLLOW UP ASSESSMENTS

Two follow up assessments are proposed to be undertaken in 2015 and 2016. These future studies will re-interview key consultees, together with stakeholders not able to input to the 2014 study; and collate 2013 MMO and Marine Scotland price data. The overall intention of the future studies is to observe any changes and evolution in the benefits of MSC in the Scottish NS haddock fishery.

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APPENDIX A LIST OF CONSULTEES

Company / Organisation	Contact
Caley Fisheries Ltd	Karl Brown & Stephen Jon Buchan
Campbells Prime Meat Ltd	Steven Walker
Denholm Fishselling Ltd	James Scott & Graham Duthie
DH Clark	Neil Clark
Don Fishing Company	Colin Graham
JK Thomson	Paul Thomson
John Vallance	Douglas Neilson
Joseph Robertson (Aberdeen) Ltd	Simon Robertson
Lunar Freezing & Cold Store Company Ltd	Iain Stephen
M&S	Hannah Macintyre
Marine Scotland	Mike Palmer
Marine Scotland	Patrick Macdonald
Nolan Seafoods (UK) Ltd	Doug Rennie
P&J Johnstone	Roy Malcolm & Graham West
RSPB	Kara Brydson
Sainsbury's	Ally Dingwall
Scottish Fishermen's Organisation	Iain MacSween
Scottish Seafood Association	Will Clark
Scottish White Fish Producer's Association	Mike Park
Seafish	John Anderson
Seafish	Richard Watson
Seafish	Angus Garrett
Seafood Scotland	Jess Sparks
Shetland Fish Producers Organisation	Brian Isbister
The Bay Fish & Chips	Calum Richardson
Waitrose	Jeremy Langley
WWF Scotland	Helen McLachlan
WWF Scotland	Tracy Cambridge
Young’s Seafood Ltd	Mike Mitchell

APPENDIX B QUESTIONNAIRE

Benefits of MSC to the Scottish North Sea Haddock Fishery Questionnaire

Introduction: Hello, Poseidon Aquatic Resource Management Limited are undertaking a study to assess the benefits of Marine Stewardship Council (MSC) certification on the Scottish North Sea haddock fishery.

This study has been commissioned by members of the Scottish fishing industry (The Scottish Fisheries Sustainable Accreditation Group, SFSAG), whose North Sea haddock fishery achieved MSC certification in October 2010.

The purpose of the study is to quantify and qualify the benefits MSC has brought to this fishery and therefore this questionnaire includes a number of commercial questions.

We would like to assure you that the information you provide will be treated confidentially and will be collated to produce a total value-chain analysis. Anonymity and confidentiality will be respected at all times. Individual responses, along with any commercially sensitive information you feel able to provide will not be reported or shared. This includes within the report and/or to the client group. Confidentiality agreements can be provided if necessary.

1. Background information

Date of interview	
Company/organisation name	
Contact name	
Position	
Business type e.g. primary processor, secondary processor, wholesaler/trader, retailer (type), food service sector (type)	
Employment (FTE)	
Turnover of fish/shellfish products	
Hold MSC Chain of Custody for MSC Scottish haddock	Yes/no
Hold MSC Chain of Custody for other MSC haddock	Yes/no

2. Buying Haddock

2a. We would like to understand your buying patterns for haddock in 2013, including Scottish NS haddock, as well as haddock from elsewhere. Below is a table for annual totals. For items 1-6 in the table below, please feel free to add rows for different product forms for each numbered item if you can.

		Product form	Quantity	Value
1	North Sea Scottish haddock with MSC label			
2	Non-MSC labelled North Sea Scottish haddock			
3	Other Scottish haddock (e.g. West of Scotland, Rockall)			
4	Other haddock (e.g. Barents Sea, Norwegian, Faroes etc.)			
5	Other MSC whitefish Specify:			
6	Other whitefish Specify:			
	Total			

2b. We would like to understand prices for haddock in 2013. We are looking to develop seasonal and grade comparisons to ensure differentials are accounted for. For example, can a snapshot of price comparisons be given for the products listed above where it is possible to compare similar sized/graded fish?

2c. Where do you purchase from? (List traders/auctions)

2d. What is your reason for buying from these sources?

2e. **Trends:** How has the amount and source of haddock from different sources changed since 2010 (when it was first certified)?

2f. To what extent, and why, are any changes a result of MSC-certification of North Sea haddock? If not, what other factors have driven the changes?

2g. What factors are important for you in your haddock purchasing?
Please rank (1 very important, 2, quite important, 3 only slightly important, 4 not very important, 5 unimportant, no ranking = not relevant)

	Rank	**Comment**
Price		
Quantity		
Quality/Freshness		
Reliability of supply		
Sustainability of supply based on sustainable sourcing policy		
MSC-certified		
Scottish origin		
Other (pleases specify and add rows as necessary)		

2h. Based on the above table, if sustainability was marked 1-4, on what basis do you determine whether fish is sustainably produced or not?

2i. If MSC-labelled Scottish haddock was not available to buy, what would be the consequences?
For your business (e.g. purchase other MSC haddock or purchase other MSC whitefish e.g. Alaskan pollock or non-MSC Scottish haddock?)

For the wider Scottish sector

3. Selling Scottish Haddock

3a. Please describe your sales of haddock in 2013: For items 1-6 in the table below, please feel free to add rows for different product forms for each numbered item if you can.

		Product form	Quantity	Value	Customer
1	North Sea Scottish haddock with MSC label				
2	Non-MSC labelled North Sea Scottish haddock				
3	Other Scottish haddock (e.g. West of Scotland, Rockall)				
4	Other haddock (e.g. Barents Sea, Norwegian, Faroes etc.)				
5	Other MSC whitefish Specify:				
6	Other whitefish Specify:				
	Total				

3b. Does your business operate on set margins between buying price and selling price?

If yes, are these margins constant for all sources of supply and if not, why?

3c. **Customer motivation:** Are more customers demanding 'sustainably-sourced' fish?

If yes, to what extent must this be third-party assessed e.g. MSC-labelled, or can it be based on other forms of assurance about sustainability?

If yes to the above, to what extent are customers prepared to pay for assurances about sustainability? If possible please provide an idea of % price increase you think your customers will generally pay for MSC-labelled fish

3d. Please provide details per customer where possible: Ranking: 1= must have, 2= nice to have, 3= not important)

Customer (name)	Type of customer	RANK MSC-labelled	RANK Scottish origin	Comments

3e. Do you use MSC or 'sustainability' as a selling point, and in what way is it useful?

3f. Do you use the MSC label on your packaging?

3g. Do customers use the MSC label or 'sustainability credentials' in their marketing/packaging?

3h. What would your customers do without MSC-certified Scottish haddock?

4. MSC certification

4a. How has MSC certification of North Sea haddock helped your business?

4b. Has MSC certification improved the reputation of Scottish haddock, and if so in what way, and can you provide any evidence/examples for this?

4c. Has MSC certification helped to open new markets for Scottish haddock? Please provide examples if you can.

4d. Has MSC certification helped to retain markets for Scottish haddock that might otherwise have been lost? Please provide examples if you can

4e. To what extent have any benefits of MSC-certification e.g. price increases, been maintained since certification in 2010 i.e. Are price differentials now the same as they were immediately after certification?

4f. What are the yearly costs of MSC certification to your business?

Chain of custody:
Additional administration/process complexity:
Other:

What sort of % do these costs represent as a proportion of:

I. your sales of haddock: %
II. your total business turnover from sales of fish: %

4e. Do you think the benefits of MSC certification, if any, are worth the associated costs for your business? Please explain why.

Thank you for your time and input, it is greatly appreciated.
The final report will be produced in March and made available to download from the Seafish website.

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