

Nautilus Consultants

The development of the Seafood Scotland vessel quality & hygiene scheme

REPORT

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Executive summary

Seafood Scotland commissioned Nautilus Consultants to undertake a study to investigate the future potential of their Vessel Quality & Hygiene Scheme as a quality mark, marketing tool and brand for quality Scottish fish.

Perspectives from four sectors of the industry – catchers, market / auction operators, buyers / processors and retailers – were gathered via face to face and telephone interviews and a limited postal survey. Issues concerning Scottish-caught fish quality, the Seafood Scotland schemes and the use of accreditation schemes were explored.

Main findings

The Seafood Scotland Quality Schemes

There is a general **lack of knowledge** regarding the Schemes currently in existence in all sectors of the industry, although processors and retailers are supportive of the Schemes and of general moves to improve fish quality. More proactive support from POs and other industry leaders would be beneficial in promoting the scheme, as would positive feedback from skippers already on the scheme and processors buying Seafood Scotland Scheme fish.

The main thrust of the Whitefish Scheme is seen to be weighing at sea. The other aspects, such as improving on board handling and hygiene are lost. Fishermen **do not clearly see the benefits** of the Scheme and of improving handling to outweigh the additional costs of machinery and manpower.

There is no clear consensus within the catching sector as to how the Scheme should develop or even if it is needed. Fishermen do not seem interested in the expansion of the Scheme to on-shore operations. This is not seen to be their concern. Similarly, there is no consensus of opinion among processors as to whether a scheme for processors would be welcomed by the industry or demanded / recognised by their customers.

Weighing at sea

It is widely believed by proponents and detractors in all sectors that weighing at sea will become **more prevalent** in the future. There are several vessels weighing at sea that are not part of the Seafood Scotland Scheme.

Processors would like to see more weighing at sea, or weighing before first hand sale, although some fish buyers were opposed to weighing at sea because it was seen as a threat to their role in the industry and would eliminate their ability to buy "free" fish. Many processors thought that weighing at sea had the potential to improve the consistency of fish quality and, therefore, the consistency of price paid for fish. They were, however, also keen to stress that weighing at sea did not automatically improve fish quality and that it had not eliminated the practice of overfilling boxes.

Fish quality

It was widely believed that Scottish-caught fish was no better or worse than that caught by vessels in other fleets in the UK or elsewhere. The main causes of poor or reduced fish quality were identified as being overfilling boxes, reduced crew sizes, a lack of skilled crew, longer fishing trips and fishing method used. It was also pointed out that fish quality only played a small part in determining price; supply was a more important determinant.

Individuals in all sectors held one of two views regarding the future importance of fish quality. These can be identified as the **global view**, in which quality becomes **more important** in the future and the **small-world view**, in which quality becomes **less important** in the future. The small-world view fails

to recognise the increasing globalisation of the seafood market and the increasing ease with which processors and retailers can source product from outside their local area.

Processors and retailers saw improving the consistency of quality as important as improving the overall quality of landed fish.

Accreditation and branding

Food accreditation schemes guarantee the production process and the end product. They can be designed to suit the needs of the industry and there do not appear to be any specific problems associated with designing and operating an accreditation scheme for sea fish. **Traceability** is an important aspect of any accreditation scheme and independent accreditation promotes greater consumer confidence and offers less potential for conflicts of interest than industry accreditation. Accreditation used to offer a premium price but it is now expected by multiples and consumers. It is now seen as a way of maintaining market share.

“Scottish” branding of fish could potentially have practical problems. What would “Scottish” mean? There are several interpretations – caught by Scottish-owned vessels, landed in Scotland, filleted in Scotland or the end product produced in Scotland. Labelling and logos can also be confusing and misleading for the consumer.

The use of the current Vessel Quality & Hygiene Scheme as a marketing tool could **undermine consumer confidence** in fish because consumer perceptions of the quality, freshness and hygiene standards in the industry are higher than actual standards.

Consumer attitudes

Consumers are generally not well educated about fish and seafood. There is limited knowledge about buying, handling, storage and preparation.

Consumers **do not readily recognise or use quality marks** when making purchase decisions and their decisions are influenced by factors other than quality, such as price and environmental issues. There is also confusion over what brands, logos and award schemes mean. The demand for quality assurance and brands among consumers depends on the type of product. It is not seen to be important for fresh fish. Regional branding is also only beneficial for certain products from areas that consumers already associate with high quality.

The use of a quality mark or a regional branding logo is **not advised** because of the potential to undermine consumer confidence and a lack of recognition of such marks by consumers.

Recommended strategy

- 1 **Focus** on the initial stage in the food chain – **the catching sector**. It is here that most improvement can be made and where the actions of Seafood Scotland are not likely to duplicate or come into conflict with the actions of other organisations.
- 2 **Clarify** the tasks of Seafood Scotland and Seafish. Ensure that fishermen know who is responsible for the Schemes and what the respective roles of Seafood Scotland and Seafish are within the Scheme. **Avoid any duplication of effort** and **reduce the potential for confusion**.
- 3 **Prove that the Scheme is a benefit**, that it does improve profitability and that the additional time, money and space requirements are not as great as many believe and that the **benefits outweigh the costs**.
- 4 **Promote** the Schemes in general to attract more vessels and ensure that **all aspects** of the Schemes are highlighted – on-board handling, correct gutting, icing, hygiene and traceability - not just weighing at sea. Ensure the Schemes are **flexible** and can be applied to vessels of all sizes and ages and in different ports.

The future of the Schemes

	Catching sector	Port / market operators	Processing sector	Retail / marketing
Need for a Scheme?	Yes	No	No	No
Why?	<ul style="list-style-type: none"> Supply of UK fish is declining due to poor stock health and cuts in TACs. Fish and seafood is becoming a global commodity - it is becoming easier to purchase the same or similar products from other countries. To compete in the global seafood market, Scottish fishermen need to produce a high quality product that can command a consistently good retail price. 	<ul style="list-style-type: none"> Rules already exist, they are just not adhered to. 	<ul style="list-style-type: none"> Schemes already exist to show that processors have attained high standards of safety, quality, hygiene, etc. (e.g. BRC, EFCIS) Moves to implement basic standards are already underway within the industry via the possible introduction of processor licensing. A Seafood Scotland scheme could duplicate, confuse or undermine existing schemes or plans for future schemes. 	<ul style="list-style-type: none"> Consumers don't recognise or use quality brands and markers when making purchase decisions. Consumer perception of fish quality and hygiene is higher than actual industry standards. Introducing a marketing scheme could highlight current bad practices and have a detrimental effect on the market.
Areas for action	<ul style="list-style-type: none"> Prove the Scheme works – that the benefits outweigh the costs. Promote the Scheme to vessels, markets and processors to raise awareness. <ul style="list-style-type: none"> clarify what is involved – handling and weighing. clarify who is eligible - that it can be applied to various sizes and age of vessel Ensure the scheme is being adhered to. 	<ul style="list-style-type: none"> Co-operate and assist with any quality improvement initiatives. Promote dialogue between market operators, EHOs and fishermen about market hygiene. 	<ul style="list-style-type: none"> Co-operate and assist with any quality improvement initiatives that may involve co-ordinated action between processors and catchers. 	<ul style="list-style-type: none"> Co-operate and assist with any quality improvement initiatives that may involve co-ordinated action between catchers and sectors further along the supply chain.
Seafood Scotland's priorities	High	Medium	Low	Low

1. Introduction

Seafood Scotland commissioned Nautilus Consultants to undertake a study to investigate the future potential of their Vessel Quality & Hygiene Scheme as a quality mark, marketing tool and brand for quality Scottish fish.

The study explores the development of the Scheme including how best to capitalise on the benefits gained from better handling and how far along the supply chain the Scheme and the benefits could and should be extended. It sets out to discover whether the Scheme should be aimed at the seafood industry alone, improving quality within the supply chain, or widened to target the consumer and used as a marketing tool for Scottish seafood.

Perspectives from four sectors of the industry – catchers, market / auction operators, buyers / processors and retailers - are presented, covering opinions of the current Scheme and possibilities for expansion. Issues concerning fish quality are then examined. Perceptions of fish quality in Scotland are explored including the causes of poor or reduced fish quality along with the role that the industry believes quality will play in the future.

Issues associated with accreditation schemes and their use as branding and marketing tools are then explored. Experiences of schemes in other industries are presented, along with the experiences of Shetland Seafood Quality Control, which is currently applied to fish landed in Shetland. Consumer perceptions of quality assurance schemes and quality brands are also presented.

Finally, the main findings are presented and areas for action are highlighted, along with the consultants' recommendations for the future of the scheme.

2. The study

Background

The Seafood Scotland Vessel Quality & Hygiene Scheme was launched as a pilot scheme in September 2000. The aim of the pilot scheme was to establish the feasibility of introducing a full-scale scheme to encourage fishermen to follow good practice guidelines on board in order to reduce wastage and fish spoilage and to improve landed fish quality and thus first hand sale prices. One component of the on-board handling practices advocated by the Scheme is the weighing and grading of fish at sea.

To date, twelve boats have joined the Scheme and a similar number has expressed interest in joining. With the current poor state of whitefish stocks and lack of fishing opportunities caused by quota cuts along with area closures that are likely to continue for a number of years, the need to maximise the value of the fish that is caught should be apparent.

If the scheme is to have an impact on the way fish is handled at sea, it needs a well-defined direction supported by the industry. Support for the Scheme needs to come from both fishermen and the on-shore sectors of the seafood industry.

Methodology

The study reports on consultation with all sub-sectors of the Scottish fishing industry and its downstream industries, from catcher to final retailer, gauging support for the Scheme and identifying how to tailor the future of the Scheme to maximise benefits to the industry and the consumer.

The study is based mainly on qualitative information gathered during the course of face to face and telephone interviews with members of the fishing industry from four distinct sectors along the supply chain, from cod end to retailer:

- catchers
- market / auction operators
- buyers / processors
- retailers

In addition to interviews, a short questionnaire was sent to thirteen Scottish ports that operate regular fish market auctions.

Representatives from quality accreditation schemes, including Shetland Seafood Quality Control were also interviewed to discover how successful such schemes have been with the industry and the consumer.

In addition to gathering first hand views and experiences, a literature search was carried out to gather further information regarding consumer attitudes towards fish, food quality and perceptions of accreditation and quality assurance schemes.

The mainly qualitative nature of the survey means that some of the views expressed may not be representative of the sector or the industry as a whole but every effort has been made to gather opinion from all sides and to address the issues from all perspectives. It will be made clear, however, if the views expressed are those of a single individual or a number of respondents.

3. The catchers' point of view

This section presents the views expressed by members of the catching sector. A range of individuals was interviewed to ascertain their views of the Seafood Scotland Vessel Quality & Hygiene Scheme. They included:

- fishermen's representatives
- skippers that had signed up to the whitefish scheme
- skippers that had signed up to the pelagic scheme
- skippers that had expressed an interest in joining one of the schemes
- skippers that were not interested in joining the schemes.

The Seafood Scotland Vessel Quality & Hygiene Scheme

A wide range of views were expressed concerning the Seafood Scotland Scheme, weighing at sea, the importance of quality and future developments in the industry. There was little consensus about the importance of quality and the current and future role of the Seafood Scotland Scheme.

Fishermen's representatives were quite knowledgeable about the Scheme but stated that they had not been asked for information about the Scheme by many of their members. They were happy to give members information but did not actively promote the Scheme or persuade members to join. It is likely that they do not see this as part of their remit, but as part of Seafood Scotland's promotional activity. It is also likely that they do not wish to be seen to be telling their members how to operate or to be promoting a specific operating practice.

Reasons for supporting / joining the Scheme

- There is a need to make more from the catch due to quota cuts, poor health of stocks, etc., so improving quality is important.
- Customers (mainly supermarkets) want traceability and quality.
- Get a better price for the fish sold. This is not seen in the price per box, but in the price per kg.

Reasons for not supporting / joining the Scheme

- Weighing at sea doesn't automatically mean better fish.
- It is too expensive. Need extra boxes and new equipment i.e. weighing machine (for Whitefish Scheme).
- Lack of crew to be able to spare men needed to grade and weigh fish on board.
- Lack of room on board. Weighing and grading at sea requires space in the fish room. The size of the fish room is not proportional to the size of the boat. Some vessel owners claim that they do not have the space to weigh and grade at sea.
- Difficult to get box weights exact on board – if boxes must contain a specific amount of fish, it is difficult and time-consuming to get the weights exact.
- Not wanted by the customer. The first hand buyer does not want weighed at sea fish. There is resistance among some buyers to weighing at sea and fishermen believe they would lose potential buyers if they began weighing and grading at sea.
- Buyers don't look for quality marks and schemes, they look at the fish and know the vessels. To sell fish, vessels rely on their reputation with buyers and the appearance of the fish on the market but very few actively market their fish. Those that do actively promote their own fish have formed direct linkages with buyers, bypassing the auction process altogether.
- Factors other than quality have a greater effect on price – supply, number of buyers, etc. so why bother trying to improve quality?
- Fishermen are getting good enough prices without the Scheme.

Weighing at sea

Overall, skippers that had signed up to the Scheme or expressed an interest in the Scheme believed that quality would become more important in the future and that the Scheme was a good idea. Those not on the Scheme did not see a clear benefit for being part of the Scheme. Many believed that weighing at sea would become more widespread but that if it were a voluntary move it would take a long time for the change to take place.

Skippers and fishermen's representatives made the point that there is resistance from some buyers for weighed at sea fish and that buyers look for "heavy" boxes and avoid "light" ones. It was felt that this meant the temptation to overfill boxes was always present and could be a reason why more vessels were not interested in weighing at sea. The need to educate buyers on the market was seen as an important step in making weighing at sea more attractive to skippers.

The way in which fish was sold was also seen as masking the possible benefits of weighing at sea. A "heavy" box of fish always makes a better price than a "light" box but any price difference per kg of fish due to better handling and quality is masked because fish is sold per box. Fishermen on the Whitefish Scheme had recognised this problem and believed they got a better price for their fish overall by weighing and grading on board. Those not on the Scheme, although recognising that this

masking effect occurred, were not convinced that the difference in price was great enough to warrant changing their practices.

Supply

Other factors, especially supply, were cited as more important determinants of price than fish quality. This is supported by research quoted in an FAO paper on seafood safety¹. The research, carried out in Australia, examined the prices of nine species of fish at Sydney Fish Market. It found that quality played only a small part in determining price. Supply was a much more important determinant.

At the moment supply is low and demand for fish is high and is expected to remain so for several years because of the poor state of stocks, so fishermen should always be able to sell what they land. One skipper thought that this had led to some fishermen becoming complacent. He also believed that there was no worry that buyers might look elsewhere (outside Scotland or the UK) for fish because of consumer preferences.

"...consumers want what they've always bought - cod, haddock, plaice and you don't get them from anywhere else, so UK fishermen's catch will always be in demand..."

This view is not, however, borne out by discussions with processors (see Section 5).

Additional work on board

A strong disincentive for joining the Scheme was the perceived amount of additional work involved. It was thought that weighing and grading at sea involved a great deal of additional time and work for the crew and it was not clear that this additional work would reap sufficient rewards. The majority of crews had been cut in order to try to save money and giving already overworked and underpaid crew additional work was not thought to be worthwhile. Some thought that the additional work involved in weighing and grading at sea would mean having to take on an extra crewman but that the additional money earned would not be sufficient to pay the extra wages and that individual crew shares would go down instead of up.

Skippers already on the Whitefish Scheme felt that it did not greatly increase the amount of work they did at sea. It was thought by some that had not yet joined the Scheme that it could involve quite a lot of work and money.

Pelagic vessel skippers felt that the Scheme involved very little additional work on board but an increase in paperwork, making sure that temperature checks are regularly carried out and documented. They also recognised that the Whitefish Scheme would involve more work because of the mixed nature of the fisheries whitefish vessels worked in.

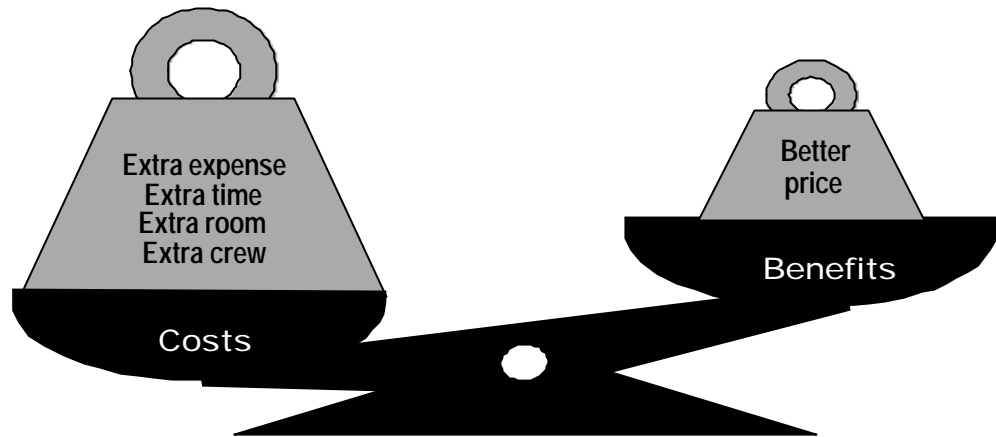
Additional expense

A further disincentive to joining was the perceived additional expense involved in buying the equipment needed i.e. the weighing machine, carrying out any upgrades and hiring the extra boxes that would be needed if crew were putting fewer fish in each box. The additional space needed for equipment, boxes and carrying out weighing and grading at sea was also seen as problematic. Concern was expressed by skippers on both Schemes and those that had not yet joined that it might be more difficult and expensive for skippers of older or smaller vessels to join the Schemes because of lack of space and modern equipment.

¹ Seafood safety: economics of Hazard Analysis and Critical Control Point (HACCP) programmes, J. C. Cato, FAO Fisheries Department, Rome, 1998

Key finding – perceived costs outweigh perceived benefits

The overriding problem with the Whitefish Scheme at the moment is that fishermen are not convinced that the benefits outweigh the perceived costs. All the problems associated with joining the Scheme and with weighing at sea in general (space requirements, additional cost, additional time) are seen cumulatively and any potential benefits (increase in revenue) are masked by the way fish is sold.



Fishermen can be divided into three distinct groups concerning attitudes towards weighing at sea:

- **Believers** – those that think weighing at sea is a good idea, that quality is crucial and have begun or are actively moving towards weighing at sea.
- **Wait and see** – those that think weighing at sea is a good idea but need more proof that it is actually worth the invested time and money.
- **Non-believers** – those that do not think weighing at sea makes any difference to the price they get for their fish.

The majority of the fleet is made up of the second group, which needs more concrete evidence that weighing at sea is worth the investment. They may be unconvinced for any one of a number of reasons – they may think the equipment is too expensive, that they don't have the available space, that it takes too much time, that their vessel is too old to qualify, etc.

The "wait and see" group see the Scheme as illustrated in the box above. By demonstrating clearly to this group that the costs are smaller than they think and that the benefits outweigh the costs, the number of vessels interested in the scheme could increase dramatically.

Any increase in the number of vessels using weighing at sea would increase the supply of weighed at sea fish and enable buyers and processors to insist on only weighed at sea fish, thereby having a knock-on effect on the "non-believer" group.

The future of the Scheme

Most of the interviewees – fishermen and their representatives - thought that weighing at sea would become more widespread in the future but were not convinced that it would be as part of the Seafood Scotland Scheme or due to the influence of the Scheme – weighing at sea would increase in the presence or absence of the Scheme. It was seen to be an inevitable change caused by among other things, pressure from processors and multiples demanding more traceability.

Some fishermen thought that extending the Scheme to shore side operations seemed a logical step – why should they take care of the fish at sea if it was going to be treated poorly when it was landed? Others, however, thought that it would be too complicated to have a similar scheme ashore.

“.....it wouldn't work in markets because other factors like the number of buyers and the amount of fish are more important than sticking to hygiene rules....”

“.... it would be difficult to have a scheme for hauliers because processors don't always use the same company.....”

In general, it seemed that fishermen were unclear how a shore side scheme would affect them. Once fish is landed and sold, it is no longer their responsibility and the person that has bought it can treat it however they please.

“...fishermen are not be interested in what happens to the fish once it is sold....”

Attempting to change this attitude would be very difficult and is not central to changing the way fishermen treat the catch. Fishermen need to be convinced that they can alter the price they are paid by altering the way the catch is handled before it is sold. This includes changing the way fish is handled on the market floor.

4. Port / market operators point of view

This section presents the perceptions of port market auction operators. They are the next link in the supply chain and are responsible for fish once landed and before it is sold. Port auctions have traditionally been associated with poor hygiene practices such as smoking and eating in the auction hall, walking on the fish boxes and poor temperature and pest control. Many ports have in the past few years upgraded their facilities, improving insulation, cold storage facilities and pest control measures, but market users have retained many of their bad habits.

Thirteen port market operators in Scotland were sent a short questionnaire by e-mail, fax or post about the Seafood Scotland Vessel Quality & Hygiene Scheme and general attitudes towards fish quality in Scotland.

A copy of the questionnaire is Annexed to this report. Questionnaires were sent to the following harbours:

- Aberdeen
- Campbeltown
- Eyemouth
- Fraserburgh
- Kinlochbervie
- Lerwick
- Lochinver
- Mallaig
- Peterhead
- Pittenweem
- Scalloway
- Scrabster
- Troon

In addition to the questionnaire, interviews were held with port operators, EHOs and Seafish regarding the Seafood Scotland Vessel Quality & Hygiene Scheme, hygiene practices in port and the possibility of applying an accreditation scheme to fish markets. Overall, port operators were less forthcoming than other members of the industry were. They were less inclined to give definite answers to questions and there were several abstentions in the responses to the questionnaire.

Replies were received from nine of the thirteen harbours. Several attempts were made to elicit responses to the questionnaire but it is unclear why some harbour operators did not respond. A summary of the replies is presented in the following table.

Question	No. replies	
	Yes	No
1. Do you think Scottish seafood has a good reputation for quality with:		
a. processors?*	5	2
b. consumers?*	6	1
2. Do you think there is a need to improve the quality of seafood landed by Scottish vessels?	8	1
3. Do you think a scheme to promote better on board handling of fish is a good idea?	9	0
4. Do you think a scheme to promote good practice in ports / markets is a good idea?†	8	0
5. Would your port be interested in joining such a scheme?†	7	1
6. Have you heard of the Seafood Scotland Vessel Quality & Hygiene scheme?†	5	3

*two abstentions

†one abstention

The Seafood Scotland Vessel Quality & Hygiene Scheme

Only five of the nine respondents to the questionnaire had heard of the Seafood Scotland Vessel Quality & Hygiene Scheme. Knowledge of the Scheme appears to be greatest in East Coast ports, while those on the West Coast of Scotland are not aware of or fully informed about the Scheme.

Only one of the respondents felt that there was no need to improve the quality of fish landed by Scottish vessels and all thought that a scheme to promote better on-board handling was a good idea. Discussions with port operators revealed that there was a general feeling among the industry for a need to improve landed fish quality but that this was thought to be emanating from processors rather than from vessel operators. This can be seen by the fact that two of the responding port operators felt that Scottish-caught fish did not have a good reputation for quality with processors.

Despite the majority opinion that there was a need to improve quality and promote better on-board handling, most respondents believed that Scottish sea fish had a good reputation for quality with consumers and processors.

This mixed message of a good reputation for quality combined with the feeling that quality needs to be improved was a common response from all sectors of the industry. Many interviewees commented that there were vessels with reputations for landing good quality fish and also vessels with reputations for landing poor quality fish in the Scottish fleet, just as there are in any fishing fleet. It was, however, generally felt that there is room for improvement.

Many market operators believe that it is necessary to try to maximise the value of the fish caught. It is hoped that improving on-board handling and thus landed fish quality, will lead to improved prices and go some way towards easing the problems caused by quota cuts and the poor health of fish stocks. The view that the continued shortage of fish would mean that fishermen would always be able to find a buyer, no matter how good or bad the quality of the fish, was also expressed.

A port / market scheme

All respondents to the question concerning a scheme to promote good handling practices in ports and on the market thought it was a good idea and most indicated that their port would be interested in joining such a scheme. There was, however, a great deal of scepticism regarding the effectiveness of such a scheme due to the failure of similar schemes in the past.

It was widely believed that a good port scheme or accreditation scheme would not be needed if existing hygiene regulations, Codes of Practice, etc. were actually adhered to. All market users – skippers, crew, buyers, hauliers, etc. – ignored regulations required by law and voluntary Codes of Practice on a daily basis.

Which organisation has the responsibility and authority to ensure that hygiene practices are followed appears to be a very grey area, or at least a highly contested area.

Harbour operators are responsible for ensuring that the physical infrastructure is hygienically constructed and maintained and that direct employees of the harbour operator adhere to hygiene regulations. They maintain that it is not their responsibility to ensure that market users (i.e. fishermen, auctioneers, buyers, etc.) adhere to hygiene practices such as not smoking, eating or drinking on the market. They also maintain that they have no authority over market users and have no powers to eject people from the market.

Environmental Health Officers (EHOs) are responsible for ensuring that the fish on the market is fit for human consumption at the time of sale. If it is not fit for human consumption, they will withdraw it from sale. In addition, EHOs also inspect the market infrastructure and observe practices that occur on the market to ensure that hygiene is maintained. They maintain that they are not, however, responsible for ensuring that market users abide by hygiene regulations – this is the responsibility of the market operator. It is the EHOs responsibility to ensure that market operators are fulfilling their obligations to ensure hygiene practices are respected. Any action taken in response to a violation of hygiene regulations would be taken against the market operator, not the individual breaking the regulations.

Market operators may be unwilling to eject users that ignore hygiene rules because of a fear that buyers will simply move elsewhere and buy fish from another market. If buyers move to another market, vessels will follow, as skippers know they are likely to get a better price for their fish on a market with more buyers, where there are more people bidding for it. Regulations would have to be applied equitably across all Scottish ports to ensure that market users had no option but to abide by the regulations or not be granted access to any market.

White fish is seen by EHOs and others in the industry to pose a very low risk to human health. Foods and operations that pose a greater risk are inspected more regularly and thoroughly. The Environmental Health Departments of local authorities may simply not have the resources required to ensure that hygiene regulations on fish markets are as strictly enforced as those that pertain to higher risk foods such as bivalve molluscs or chicken.

This stand off between market operators and EHOs means that current hygiene regulations and Codes of Practice are not followed and no one appears to want to take responsibility for ensuring that they are followed and that people that ignore the rules are punished. It is, therefore, widely believed that a voluntary scheme applied to markets would be largely ineffectual. Market users will not alter their habits until they are forced to by strictly enforced regulations or until their customers – the processors and supermarkets – insist that they only source fish from markets adhering to a hygiene code.

Key finding – a new port / market scheme is not necessary

Hygiene rules, regulations and Codes of Practice already exist, they are just not adhered to. This situation is compounded and allowed to continue because of a seeming lack of co-operation between market operators and EHOs and some confusion over which group is responsible for ensuring hygiene rules are followed by market users.

A new voluntary scheme would not address the heart of the issue – market users' ignoring good hygiene practices.

5. Buyers / processors point of view

This section presents the views and opinions of fish buyers and processors. Fish processors in the main Scottish processing areas of Peterhead and Aberdeen were interviewed, as were representatives from merchant and processor organisations. All were asked about perceptions of fish quality in Scotland, the Seafood Scotland Vessel Quality & Hygiene Scheme and about the possibility of extending the Scheme along the supply chain and using it as a marketing / branding tool for Scottish fish.

The Seafood Scotland Vessel Quality & Hygiene Scheme

As with the other sectors, only some of the processors knew of the existence of the Seafood Scotland Vessel Quality & Hygiene Scheme but all viewed anything aimed at improving the quality of fish landed as a good idea and much needed.

Weighing at sea was also viewed as a good idea among many of the processors as it would eliminate the variation in the amount of fish different skippers put in each box and help to improve fish quality.

Weighing at sea was seen in a very different light by one interviewee. He felt that weighing at sea eliminated much of the skill and experience that is currently needed by buyers on the market. A skilled fish buyer can judge how much fish and of what quality is in each box based on his knowledge of the vessel and by inspecting the fish. He would then bid accordingly. If he bought ten stone (63.5 kg) of good quality fish in a box only supposed to contain eight stone (50.8 kg), he was effectively getting two stone (12.7 kg) of fish "free" and was getting a good deal.

".....it takes all the skill out buying. I know the boats and how much they put in each box and what the quality will be. I'll pay a bit more for a box with more fish....."

When buying fish, he deliberately tried to avoid fish that had been weighed at sea. He did, however, feel that weighing at sea would become more widespread in the future.

".....I try to avoid weighed at sea fish. It's difficult when there is so little fish around but I get a better deal with un-weighed fish....."

Some of this was echoed by fish processors who said that they have to rely on their representatives on the market to ensure they get the fish they need. A scheme that identified fish that had been treated a certain way and gave more of a guarantee of a specific level of quality would mean this reliance could diminish in the future. It would also help in the move towards electronic and remote buying of fish.

A more widespread use of weighing at sea was believed would lead to less variation in prices than currently exists. Vessels would get a more consistent price for their fish rather than extremes of high and low prices.

Many interviewees, although welcoming weighing at sea, said that it did not necessarily improve fish quality. Many other factors such as correct gutting and icing and trip length had major impacts on the quality of the fish. Many felt that the quality of gutting had dropped in recent years due to poor training of crew and vessels reducing crew sizes, and that the long trips taken by large whitefish vessels had a detrimental effect on quality.

It was also noted that weighing at sea had not eliminated the practice of overfilling boxes and that there was still a variation in box weights among vessels weighing at sea. This is caused by crew attempting to compensate for water loss from the fish during the course of the trip. Some were overcompensating and vessels meant to be landing boxes weighed at sea with an average weight of 51kg were landing boxes with 55kg or more fish in them. Vessels were also reluctant to land what look like "light" boxes and a few extra fish were being added. This is basically a continuation of the current practice of overfilling and the use of nominal weights. Instead of boxes sold as "eight stone" boxes, they are sold as "51kg" boxes, but they continue to contain more fish than the nominated weight.

Despite the feeling that weighing at sea alone could not improve fish quality, many processors stated that they would like to see weighing at sea or weighing before sale become compulsory.

Several processors said they would preferentially buy from vessels on the Seafood Scotland Scheme if they found that the Scheme vessels consistently offered a supply of fish of the quality that they needed. It was, however, mentioned that there are not enough vessels on the scheme for processors to be able to source all their raw material from Seafood Scotland Scheme vessels.

Processors also stated that if local landings are not of sufficiently high quality to satisfy their needs they can, and do, readily source material from other areas and countries. This is contrary to the view expressed by one skipper who felt that processors would not be able to source material from outside Scotland because it would be of different species that would be unacceptable to the end consumer (see Section 3).

Key finding – the importance of traceability

Several processors mentioned the increasing importance of traceability. Their customers are insisting on more and more traceability and there was also a feeling that consumers were becoming more insistent on knowing where, when and how the food they purchased had been produced.

Improving traceability was thought to be as important as improving quality.

A processors scheme

At present there are a number of hygiene schemes that processors can be part of such as EFCIS and the scheme operated by the British Retail Consortium (BRC). There are also minimum hygiene requirements that must be met. Processing premises are inspected by local EHOs to ensure minimum standards are met.

Customers of processing companies (e.g. multiples, caterers) also demand specific levels of health, hygiene and safety but these are not standardised and different customers have different criteria. Processors that supply more than one company must ensure they meet all the conditions applied by all of their customers. Processors' customers regularly inspect the premises of their suppliers to ensure that the standards they demand are maintained. These inspections take place much more regularly than inspections carried out by EHOs.

Some operators within the processing industry are pressing for the introduction of licensing of processors. At present, some operators feel they are not operating on a level playing field, as there are no regularly inspected and enforced minimum standards that all processors must operate.

A Seafood Scotland scheme for processors would have to be flexible enough to encompass the various types of fish processed and primary and secondary processing, but be stringent enough to be a meaningful indication of good hygiene to processors' customers. It is possible that the introduction of a Seafood Scotland scheme for processors could become confused with existing schemes such as EFCIS and BRC schemes. It was commented that a scheme that set and monitored basic hygiene levels would be useful, as it would provide a starting point for all processors. Individual operators could then decide if they wanted to aim for a higher standard or internationally recognised scheme. This idea seems to be along similar lines to the call for registration of processors to ensure that some basic standards are monitored and maintained. It was, however, pointed out that there would be little point in introducing a scheme if it were not recognised or demanded by processors' customers.

The use of a scheme as marketing and promotional tool was also discussed. Existing schemes are seen to have promotional benefits inherent within them because they are a recognised indication of hygiene and quality that processors can show to potential customers.

The use of a scheme as a promotional tool for consumers was a more complicated issue. Most interviewees believed that consumers can easily tell good quality fish from poor quality fish and that fish has a "built-in safeguard" because it begins to smell inedible long before it would cause any ill health. Despite this, the majority of people interviewed also believed that consumers had little knowledge about how fish is treated in the industry. They felt that many consumers would be alarmed to find out how old some of the "fresh" fish on sale actually was, bearing in mind that some fish is over ten days old before it is sold on the auction market. Applying a promotional quality scheme could damage consumers' perception of fish unless handled with extreme care. For example, the Seafood Scotland Whitefish Vessel Quality & Hygiene Scheme states that fish must be less than eight days old when landed. It would be difficult to promote this in a positive light to consumers who believe that the fresh fish they buy is much fresher than this. Research by Seafish shows that consumers currently believe the fresh fish they buy to be only two days old².

6. Retailers point of view

Multiples are commanding an increasing proportion of fresh fish sales from in-store fish counters and as pre-packaged fresh fish in chilled cabinets. They also continue to stock and sell large quantities of frozen fish produced by the major UK and overseas processing companies. Representatives from UK multiples were interviewed regarding their opinion of Scottish-caught fish quality, views towards the Seafood Scotland Scheme and consumer opinion of fish quality and quality branding tools. The findings from these interviews are presented below.

The Seafood Scotland Vessel Quality & Hygiene Scheme

Retailers had little or no knowledge of the Seafood Scotland Scheme and stated that they would be unlikely to be directly involved in the scheme at the vessel level because they rarely sourced material direct from fish markets. Some retailers have direct contact with individual vessels but have found in the past that skippers will revert to selling over the market rather than direct to the supermarket if market prices rise. Retailers were, however, supportive of any measures to improve the quality of fish landed.

² Seafish Quality Marker, A Report for the Seafish Development Advisory Committee, November 1998

There were mixed messages about the perception of the quality of fish from Scotland. Scotland as a producer of fresh produce has a good image with consumers. It is associated with clean, clear air and water. The retailers, however, have a slightly different view. Again, it was stated that Scottish fish is no different to product from other parts of the UK but there are concerns over fishermen's ability to correctly care for their catch and ensure that temperatures are controlled. Icelandic fish was mentioned as being of "outstanding" quality. Icelandic fishermen offer full traceability to retailers back to the specific vessel that caught the fish including where and when it was caught, along with the size, grade and species of fish. Icelandic fishermen also ensure that fish is rapidly chilled and that temperatures are maintained.

Consumers' knowledge of fish and seafood is, on the whole, quite poor. Some groups have a better knowledge than others do and these tend to be the most regular consumers of seafood products. Research shows that older consumers purchase more seafood than younger ones and that consumers that live nearer the sea purchase more seafood than those that live further from the coast^{3,4}. While consumers can easily determine if fish is "off", they are not adept at distinguishing between high quality and poorer quality fish because of a lack of knowledge and experience with the product. This is a belief held by retailers and shown through experimental trials⁵.

For more informed consumers, factors other than quality and freshness can also play a significant role in the decision to buy fish. One major UK retailer stated that they no longer sourced demersal fish from UK fisheries due to concern over the health and sustainability of fish stocks and fishing practices in the North Sea. Haddock and cod are instead sourced from Iceland where fishing practices are believed to be more sustainable. Icelandic and other vessels also provide full traceability and forward landing data, which is helpful to their buyers.

Fishermen should look to the actions taken by vessels from elsewhere, either in the UK or abroad, to see how changes in handling and better two-way communication between catchers and processors can lead to stronger commercial relationships and improvements in fish quality and price.

Quality branding / an accreditation scheme

In the experiences of the multiples' representatives interviewed, the consumer has little interest in quality marks and does not preferentially seek out quality branded or accredited products. The consumer relies on the store's reputation and image as a supplier of quality safe foods. There is little to suggest that consumers question that the stores they shop in have anything but their best interests at heart, in respect to food safety and they believe that the store would ensure that only quality products are placed on sale.

This is borne out by work carried out for the Seafish Development Advisory Committee⁶, which found that consumers believe "others" have ensured the safety and quality of the food they buy, before it reaches them and that reputable retailers will only sell quality assured products.

From the point of view of the retailer, accreditation would be seen as worthwhile if it reduced the number of audits and checks retailers had to make on their suppliers. Large retailers currently visit each of their suppliers' processing premises several times a year. If retailers could rely on an independent auditing mechanism, this would much reduce their costs in ensuring hygiene, quality and traceability.

³ Consumer choice for fresh fish: factors affecting purchase decisions, F. A. Nauman, C. M. Gempesaw, J. R. Bacon., Marine Resource Economics, Vol. 10, 117 – 142., 1995

⁴ Consumer preferences for Northeastern aquaculture products: report on the results from a survey of Northeastern and Mid-Atlantic consumers, C. R. Wessells, S. F. Morse, A. Manalo, C. M. Gempesaw II, Rhode Island Experiment Station Publication No. 3100, 1994

⁵ Consumer ability to discern seafood quality: results of experimental studies, J. G. Anderson, C. R. Wessells, Proceedings of the sixth conference of the International Institute of Fisheries Economics and Trade, 1995

⁶ Seafish Quality Marker, A Report for the Seafish Development Advisory Committee, November 1998

Improved traceability and labelling, especially the inclusion of the date of capture, would also enable retailers to more effectively gauge the shelf-life of fresh fish in the stores. This could potentially reduce wastage and increase the efficiency of stock control for fresh fish. Traceability is an integral part of multiples' quality control operations⁷. Date of capture was also shown to be important to consumers. A survey of over 3,000 Americans indicated that over 60 per cent thought it was important to know when fish and shellfish had been harvested⁸.

Retailers believed that the need and / or demand for a labelling or accreditation scheme from both the industry and the consumer would only increase dramatically if a food health scare or exposé of the fish industry were to take place. A health scare similar to that of the BSE and salmonella scare would provide the impetus for the industry to move towards a way of reassuring consumers that fish was safe and would also prompt consumers to demand more information about the safety and production methods of fish products. A health scare involving white fish is, however, unlikely. It is viewed as a low risk food by both the industry and EHOs with a "built in safeguard" against harming health i.e. a bad smell. Consumers also believe that fish poses little risk to health. A US study asked consumers to rank ten food items based on their perceptions of how likely each one was to cause illness after being eaten. Less than two per cent chose fish as the most likely to cause illness, ranking it after raw shellfish, pork, chicken, eggs, milk and beef⁹.

Similarly, if the public knew more about the fish catching and processing industries, calls to improve the situation would be made. This sentiment was echoed by several other individuals in the industry who believed that consumers would be alarmed to find out how old "fresh" fish actually is and how it is treated, especially on the auction floor. Consumers are, however, not knowledgeable about food production in general. A survey by the Institute of Groceries and Distribution (IGD)¹⁰ in 2000 showed that 49 per cent of consumers admitted to having a "low" understanding of food production and only 15 per cent felt they had a "good" understanding. The same research also showed that while many consumers have a variety of concerns about food production (safety controls, genetic modification, hygiene, etc.), the majority make no attempt to improve their level of understanding about the subject.

It is unlikely that a major food scare relating to white fish will occur, or that consumers will feel the need to actively seek out additional information regarding the fishing industry. Pressure to change the way fish is handled and traced through the food chain is likely to come from large retailers and processors, seeking to reduce any risk that might exist and improve supply chain efficiencies.

7. Fish quality

This section examines the perception of Scottish-caught fish by the industry. Views regarding fish quality are presented separately from the sectoral views of the Seafood Scotland Scheme because similar views were expressed across sectors.

Scottish fish

In terms of the quality of fish supplied by Scottish vessels, it was widely commented that Scotland used to have a reputation for landing high quality fish but that this relates to a period in history when English vessels, compared with their Scottish counterparts, did not land good quality fish.

Now, the view within all sectors of the industry is that Scottish fish is no better or worse than anyone else's and that fishermen from different areas and different countries land both good and poor quality

⁷ Port Markets Strategy Study, Seafish Report No. SR 528, Nautilus Consultants, 1999

⁸ Consumer preferences for Northeastern aquaculture products: report on the results from a survey of Northeastern and Mid-Atlantic consumers, C. R. Wessells, S. F. Morse, A. Manalo, C. M. Gempesaw II, Rhode Island Experiment Station Publication No. 3100, 1994

⁹ Consumer preferences for Northeastern aquaculture products: report on the results from a survey of Northeastern and Mid-Atlantic consumers, C. R. Wessells, S. F. Morse, A. Manalo, C. M. Gempesaw II, Rhode Island Experiment Station Publication No. 3100, 1994

¹⁰ IGD website – www.igd.com

fish. It is very difficult to determine what proportion of the fish landed is high quality and what proportion is poor quality because this is not recorded when fish is landed. All fish sold across the auction is fit for human consumption (see Section 4) but the quality of the fish landed, based on the Torry scale or any other measure, is not recorded. Members of the industry are also unaware of the amount of good and poor quality fish landed, although all recognise that fish of varying standards are landed and bought. They are also unable to estimate what poor quality fish costs the industry in terms of lower prices and wastage.

Some countries were mentioned as having generally better handling practices and quality (e.g. Faeroes, Norway, Spain, Holland, Iceland) but no single country was consistently singled out as having substantially better quality fish than anyone else; they all landed good and poor quality fish.

The issue of a need to improve Scottish fish could be seen as a "Have you stopped beating your wife?" type of question. It was recognised that there is a need to improve quality but that improvements in quality should always be striven for and that this need did not imply current poor quality of Scottish fish. Processors especially commented on the need to improve quality but the need to improve the consistency of fish quality was also highlighted as being of specific importance in reducing uncertainty.

Causes of poor / reduced quality

There are many factors that affect the quality of fish landed in ports. Some of these factors, such as food availability and the breeding condition of the fish cannot be influenced by changes in fish handling practices. The main factors affecting fish quality that can be altered by changing fishing practices are outlined below.

Overfilling boxes

Overfilling fish boxes is an historical practice that is still common and largely confined to Scotland, especially in the Northeast ports of Peterhead, Fraserburgh and Aberdeen. Fish boxes that are designed to hold eight stone (50.8 kg) are regularly found to contain nine or ten stone (57.15 kg or 63.5 kg), while the large fish bins designed to hold around 60 stone (381 kg) can contain over 80 stone (508 kg) of fish.

Overfilling leads to fish damage and poor chilling as fish at the bottom of boxes are compressed by the weight of fish above them and boxes containing too much fish cannot contain sufficient ice to chill the fish quickly and effectively. It also increases the drip loss, so that an overfilled box loses water faster than a correctly filled box.

Reasons why overfilling continues to occur:

Quota fishery officers in port are unable to weigh every box of fish landed so the majority is given a "nominal weight" of eight stone (50.8 kg). The amount of fish landed by a vessel is then deducted from its quota allocation. If a box is recorded as containing eight stone (50.8 kg) but actually contains ten (63.5 kg), two stone of fish has been landed without being deducted from a vessel's quota allocation. Overfilling, therefore, means that vessels are able to land more fish than they have quota for.

Buyers fish buyers deliberately look for heavy boxes as they are seen as being a better deal than boxes with accurate weights. This is because an overfilled box is seen to contain "free" fish. The buyer is bidding for a box with a nominal weight of eight stone (50.8 kg) but if it actually contains ten stone (63.5 kg), he is getting two stone (12.7 kg) of fish "free".

Price per box fish is sold per box rather than per weight and fish buyers are willing to pay a little extra for a box they think contains more fish (see above point), so an overfilled box realises a better price than a correctly filled box. The price of fish per weight in a correctly filled box is, however, likely to be higher than the price per weight in an overfilled box. The way in which fish is sold masks this difference and fishermen continue to believe that overfilling leads to better returns.

Reduced crew size

Recent increases in fishing costs, such as rising fuel prices and reductions in fishing opportunities caused by quota cuts has meant that crew numbers have been cut on the majority of vessels in an attempt to maintain vessel viability and crew wages.

Crew wages are calculated based on a percentage of vessel grossings, after various running costs have been deducted. An increase in running costs or a reduction in vessel earnings means a reduction in the proportion of grossing to be shared among the crew. By reducing crew numbers, the proportion of vessel earnings allocated to crew share is divided among fewer people and wages for the remaining crew members do not fall too much.

Reduced crew size adversely affects quality because there are fewer people on board to work the catch. Once hauled, fish remains in hoppers and on deck for longer periods before it is washed, gutted, boxed and iced. This increased time between hauling, gutting and storing means that fish is not cleaned and chilled quickly enough, leading to reduced quality.

Lack of skilled crew

Reductions in wages and better prospects on shore and in the off-shore oil and gas industries has led to an overall shortage of skilled fishing crew. Improperly trained or inexperienced crews are not as skilled in cleaning, gutting and handling fish. Financial pressures also mean there is less time and money available to ensure that crew receive fish handling training. A lack of experienced and skilled crewmen, coupled with reduced crew sizes (see point above), has a detrimental effect on fish quality.

Trip length

It is common for fishing trips on large whitefish vessels to last between ten and fourteen days so that fish, when landed, can already be over a week old. Trip length has increased as skippers try to ensure that they catch enough fish to cover the costs of the trip. Rising fuel costs have especially contributed to increased trip length making it too expensive to steam back to port more regularly. As soon as it is caught, the fish begins to degrade and the longer the time before landing, the more fish can degrade before it is sold.

Fishing method

The way in which fish are caught can also have an effect on the condition of the fish and, therefore, the quality. Methods used by the Scottish fleet in the past, such as seining caused much less physical damage to the fish during capture than demersal trawling and twin-rig trawling methods. Fish caught in demersal trawls can come into contact with the seabed and hauling a large quantity of fish in the net can result in damage to fish in the cod end. Other fishing methods such as long lining and gill netting also result in less physical damage to the fish. These methods do not, however, tend to catch the large quantities of fish able to be caught in trawls.

The importance of quality in the future

Improving fish quality is seen by many as a logical way of improving the price paid for fish and hence the profitability of the business catching and / or selling the fish. The issue is not, however, as clear-cut as this.

Two opposing views regarding the importance of quality and its role in the future of the fishing industry have been expressed by a number of interviewees. These opinions have been voiced by individuals from different sectors of the industry including fishermen, fish buyers, processors and market operators.

1. Quality becomes more important in the future – the global view

The first view is that as fish supply dwindles due to the poor state of stocks, quota cuts, area closures and other measures designed to help rebuild stocks, quality will become of greater importance.

As the amount of fish available falls, fishermen will need to make more from what they are able to catch and will place more of an emphasis on landing a quality product, which can command a high price. In addition, quota leasing and buying effectively means that fishermen are paying for the fish before they have caught it. In this situation, the fisherman will want to make as much money from the fish as possible to cover his original investment in the quota.

As fish becomes scarcer, it will also become more of a luxury food item. Consumers, buyers and processors will not be prepared to pay high prices unless the product is of the highest quality.

The increasing globalisation of the seafood market means that Scottish-caught fish is not just in competition with other Scottish-caught or UK-caught fish but with fish from other countries such as Norway, Iceland, the Faeroes and with fish from countries that are further afield such as Australia and South America. It is becoming easier for processors to source product from all over the world and if they cannot source material of the desired quality from local vessels, they can get it from elsewhere. If Scottish vessels are to maintain their market share, they need to produce a product that is of a high enough quality to compete on the world stage.

In this view, falling supply leads into a positive feedback circle where high prices for a scarce commodity promote improvements in quality, which in turn lead to higher prices and continue to promote good quality.

2. Quality becomes less important in the future – the small world view

This view states that as fish supply falls, quality becomes less of an issue. Fishermen, buyers and processors will be able to sell whatever fish is landed, no matter what the quality because demand for fresh fish is much greater than supply. There is no incentive to improve quality because high prices can be realised for fish of any quality.

This second point of view represents a more pessimistic outlook but fails to fully recognise the increasing globalisation of the market for fresh and frozen fish. A situation where quality is not important is very unlikely to occur, as it requires a captive market for the product and an absence of alternatives.

Each view seems equally valid and proponents of either view can see the logic behind the other. The view that quality will become more important is held by individuals in all sectors of the industry, from fishing to retail. The second view, that quality will become less important, tends to be held by fishermen, port operators and some fish salesmen, rather than processors and retailers. Based on this study, between one third and half of fishermen, port operators and fish salesmen hold the second opinion and this proportion seems to be declining.

Processors seem more convinced that quality will become more important in the future than the other sectors. As it becomes easier to source the same or similar fish products from overseas, buyers are less likely to accept local supplies if they are of a lower quality. Processors and retailers are finding it easier to source traditional UK-caught species from countries such as Iceland and the Faeroes and are having to rely less and less on locally caught and landed fish. Some fishermen do not believe that UK consumers will accept substitutes for traditional fish such as cod and haddock (a view

expressed by one skipper interviewed during the study). It is, however, unlikely that UK consumers will pay for expensive poor quality fish if a cheaper, better quality substitute can be found. Retailers confirm that price is an important factor in the consumer's decision-making process when buying fish.

As more fishermen realise that their catch is part of a global seafood market and that they are effectively in competition with fishermen from all over the world, improving the quality of the fish they land will become an important part in ensuring they retain market share and remain a viable business.

8. Accreditation & branding

This section examines the issue of quality accreditation and its use as a branding and marketing tool in the final market place. Interviews were held with representatives from organisations that operate independent accreditation and certification schemes to learn of their experiences in setting up and operating accreditation schemes in other industries. They were also asked if there were any specific problems associated with the seafood industry that would make operating an accreditation scheme more difficult than schemes in other industries.

A representative from Shetland Seafood Quality Certification was also interviewed with respect to the sea fish quality scheme they operate in Shetland, industry attitudes towards the scheme and its future.

This section also brings together opinions of branding and accreditation gathered from the four seafood industry sectors and from literature published in journals and on the Internet on other food sectors.

Accreditation schemes

Accreditation schemes for food and other products are increasingly widespread. Retailers are demanding the use of such systems for liability purposes, to reduce any risks that may exist within the supply chain, ensure full traceability and reduce the need for them to audit their suppliers. Recent food scares have meant that consumers are also demanding more assurances of food safety and, although accreditation schemes do not guarantee zero risk to health, they help to reduce the possibility of risk and reassure both consumers and retailers of product safety.

Non-food products tend to be part of environmental labelling schemes that reassure consumers that they have been produced sustainably e.g. the Forest Stewardship Council (FSC) for wood, or without harming animals e.g. the humane cosmetics standard. Food accreditation schemes are designed to reassure consumers and retailers that the product has been produced in a manner that reduces risk to health so that the product on the shelf is safe to eat. They also have animal welfare practices built in so consumers can be sure that products were reared and produced without causing undue suffering. Such schemes exist for beef, lamb, pork, chicken and salmon.

Food accreditation schemes operate in a similar way to other accreditation schemes such as ISO 9000 but in addition to the **process** by which the food is produced being accredited, the **product** is also accredited. This ensures that both the end product is of a specified quality and safety and that it has been produced within defined guidelines.

Quality Meat Scotland

The impetus for the formation of one accreditation scheme – Quality Meat Scotland – was the increasing demand by large retailers such as multiples for various health and safety reassurances, standards and quality assurance guarantees from their suppliers. The different retailers were, however, demanding various different criteria. In response to this, the farming industry proposed a single accreditation scheme be designed to satisfy the needs of the retailers. This would mean that the farming industry would only need to meet one set of standards and be audited by one group.

The scheme has proven very successful and has helped reduce the level of mistrust that used to exist between different sectors of the meat producing industry by encouraging co-operation. It is independently audited and incorporates 80 per cent of Scottish beef and lamb producers and 90 per cent of Scottish pork producers. A quality brand has been designed for use with the scheme and, although the brand is not applied to all finished products, all major processors insist that they only accept product that has been accredited.



Accreditation schemes can be designed to suit the specific needs of the industry. Required legislation is built into the schemes to ensure that minimum legal requirements are met as well as the additional criteria specified by the scheme. They do not have to meet internationally recognised standards such as ISO 65 but can be designed around the specific needs of the producers, processors and retailers involved. Certain criteria, such as laying down procedures to be followed if a member of a scheme breaches accreditation criteria, have to be incorporated into schemes if the accrediting body is to retain its UKAS accreditation (see box below).

UKAS – UK Accreditation Service



UKAS is the UK Accreditation Service recognised by the Government for the accreditation of testing and calibration laboratories, certification and inspection bodies i.e. UKAS awards accreditation to accreditation service providers. UKAS accreditation is internationally recognised and using a UKAS accredited certification service means reducing the risk of selecting an incompetent evaluator and paying for or acting upon invalid results¹.

To ensure members of a scheme are abiding by the scheme, they are inspected regularly. Inspections are carried out more frequently than is required by legislation and involve arranged visits, surprise visits or a mixture of both depending on what is required. Operators of accreditation schemes state that it is important that their inspectors are not seen as policemen but are there to help members retain their accreditation and offer advice and guidance. Inspectors do not decide who passes or fails an inspection, they simply report back to a committee that makes the decision.

In the event of a breach of scheme conditions, accreditation can be withdrawn from the operator. All customers of the business are informed and can then decide whether they wish to continue purchasing product from a non-accredited source. The business can also decide whether it wants to

regain its accreditation. In industries where accreditation is the norm and is required by the majority of businesses' customers, the withdrawal of accreditation can have serious commercial implications.

It is not necessary to have accreditation to the same standards at all stages of the supply chain. For example, beef farms and processors are accredited to internationally recognised standards but hauliers and markets are not. Also, it is not necessary to start the accreditation process at one end of the supply chain and work along it – the process can begin at all stages simultaneously.

The use of accreditation schemes as a marketing tool has changed recently. Initially accreditation schemes resulted in the product being offered at a premium price. The proliferation of such schemes and the fact that retailers demand accreditation as the norm, rather than the exception means that this is no longer true for the majority of products. Accreditation is instead seen as a way of ensuring and maintaining a place in the market. In a global food market, where accreditation and quality assurance are the norm, not having or losing accreditation significantly reduces the number of potential customers for the product.

Accrediting sea fish

Representatives of accreditation service companies could not foresee any problems associated with operating an accreditation scheme for sea fish that had not been encountered previously on other schemes.

Traceability was highlighted as an important aspect of accreditation. Care would need to be taken to ensure that fish could be traced back to the landing vessel at each stage of the supply chain if the scheme was to extend all the way from cod end to final retail. This would be especially important at stages when fish is transferred from one box to another e.g. after purchase from the market where fish may be transferred from the vessel's fish boxes to the processors' boxes. It would also need to be maintained at the processors' premises when different batches of fish are combined or split. These problems have, however, been encountered and solved in other food industries with the use of techniques such as carcass tagging.

TRACEFISH – improving traceability of fish

TRACEFISH is an EU funded project focussing on the traceability of fish and fish products, running from 2000 to 2002. Consortium members include major European fish exporters, processors, importers and research institutes.

Increasing demands from buyers and consumers concerning information about food products means that it is no longer practical to transmit the relevant data physically along with the product.

TRACEFISH aims to establish common views concerning what data should follow the product through the chain from catch or farm to consumer.

One of the tasks is to bring together companies and research institutes to agree on the specification for a computer system to identify, transmit and extract all the information concerning fish catches electronically and establish a technical document standard to traceability information.

The first TRACEFISH Technical Consortium meeting is planned to take place in Amsterdam in March 2001 and the first TRACEFISH Conference will be held in Copenhagen in May 2001.

Some aspects of the scheme would have to be taken on trust – at sea handling, hygiene and safety practices for example, as it would be very unlikely that any scheme would involve inspectors on board at sea. The landed product could, however, be easily inspected and on-board practices

inferred from its quality. Cleanliness and hygiene on board could be inspected while the vessel was in port. These techniques are already used by Seafood Scotland.

The companies spoken to advised using an independent accreditation company to carry out the inspections and operate the scheme. Independent accreditation ensures impartiality and reduces any potential conflicts of interest that could arise if the scheme was operated by an industry body such as Seafish. Independent accreditation is seen as the key to generating confidence in food safety¹¹ and conveys an image of impartiality to the consumer. Discussions with the industry, however, indicate that they would like any accreditation scheme to be operated by an industry body because it would be more knowledgeable and understanding of the needs and problems associated with the fishing industry.

Independence and industry expertise can be combined if the accreditation company employs ex-industry personnel such as retired skippers or Seafish quality personnel, ex-EHOs, ex-processors and ex-auction personnel as inspectors. The accreditation company would train and employ the inspectors, thus ensuring independence while drawing on the knowledge and expertise they gained when they were part of the seafood industry. This has worked well in the past on other schemes e.g. companies that accredit FSC products employ ex-Forestry Commission staff as inspectors.

Branding

The labelling and branding of products on assurance schemes has proven successful in other industries – eco-labelling has shown a rapid expansion in recent years and accreditation brands for meat, cereal and salmon has also increased. Quality brands have even been given awards by other quality branding schemes. The Tartan Quality Mark set up by Scottish Quality Salmon (SQS) has been awarded the Label Rouge by the French Ministry of Food. Following the award, exports of Tartan Quality salmon rose by 30 per cent¹².

In order for an accreditation scheme to be developed into a brand and used as a marketing tool, the customer – whether end user or member of the industry – needs to know of the existences of the scheme. Research by Seafish¹³ and for Quality Meat Scotland (QMS)¹⁴ shows that consumer awareness of existing quality markers is low.

The QMS study, while focussing on consumers' attitudes to meat rather than fish, also explores attitudes towards quality marks in the UK. It found that people do not readily identify with the concept of quality marks and feel instead that quality is built in through regulations, retailers continued ability to trade i.e. if they did not sell quality products, they would not remain in business, and brand trust. This supports findings from discussions with retailers who believe consumers have little interest in quality branding and instead rely on the reputation of the store and the appearance of the product on the shelf (see Section 6). One retailer interviewed during the course of the study said the multiple he represented had commissioned research into consumer perception of the Tartan Mark in its stores. They found that consumers had no interest in whether the product was branded or not.

The number of branded and labelled products and quality assurance schemes could prove confusing to the consumer. The Seafish Quality Marker report¹⁵ found a high level of consumer confusion surrounding quality marks with little knowledge about what they actually mean in real terms for the consumer i.e. what the scheme guarantees. It also recognised a failure in consumers' ability to distinguish between quality assurance markers and other labelling such as "free range" and "organic".

¹¹ Baroness Hayman, Minister for Food Safety, MAFF Press Release 31st January 2000

¹² Scottish Quality Salmon website – www.scottishsalmon.co.uk

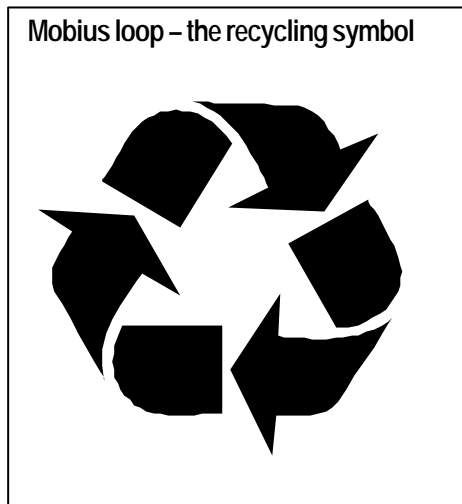
¹³ Seafish Quality Marker, A Report for the Seafish Development Advisory Committee, November 1998

¹⁴ Union Agency research for QMS, 2000

¹⁵ Seafish Quality Marker, A Report for the Seafish Development Advisory Committee, November 1998

Consumer confusion over the meaning of labels can be seen in other industries where branding and assurance schemes are in operation. The use of eco-labels is a particular example of this¹⁶. Logos and wording on products may be confusing or promote an image that is misleading. For example, the commonly used symbol to indicate recycling (see figure below) has two equally valid meanings:

1. the product is made from recycled material
2. the product / packaging can be recycled



Products are often labelled with misleading or unhelpful information. Wording such as “environmentally friendly” is eye-catching and conveys an image of environmental responsibility to the consumer, but the statement gives no specific information about *how* the product manufacturer is “friendly” towards the environment. A comparable scenario in the seafood industry is in the use of the phrase “dolphin friendly” on tins of tuna.

The demand for branding is also affected by the type of product on sale. Recent research in the Republic of Ireland¹⁷ shows that for fresh and chilled fish, consumers viewed branding as irrelevant – consumers prefer to base their choices on perceived freshness and quality. For premium value added product, branding and quality assurance is more expected and the brand or packaging must convey a message of high quality.

Similarly, the importance of regional branding depends on the product on sale. A recent MORI poll for SQS¹⁸ showed that two thirds of people that regularly buy salmon believe Scotland produces the best salmon in the world and that it is important to know where salmon was produced when making purchase decisions.

For sea fish, the origin of the product not as important to the consumer. A Seafish study¹⁹ shows that regional branding of seafood has little influence on consumers’ decisions to purchase specific products and research in the USA²⁰ shows that only 29 per cent of consumers believe fish quality is significantly influenced by where it is from.

One processor also mentioned that branding products as “Scottish” could have practical problems. What exactly would “Scottish” mean? It could mean caught by Scottish vessels, landed in Scotland,

¹⁶ How green is your shopping, Which?, October 1999

¹⁷ The Way forward for Irish Seafood: strategy for the development of the Irish seafood processing sector, Indecon Economic Consultants, Department of the Marine and Natural Resources, 2001

¹⁸ MORI website – www.mori.com/polls/1999/salmon.htm

¹⁹ Report on the possibilities of labelling fish by its region of origin, Dr. E. Fossey, Seafish Consumer Marketing, 1999

²⁰ Seafood safety: economics of Hazard Analysis and Critical Control Point (HACCP) programmes, J. C. Cato, FAO Fisheries Department, Rome, 1998

filleted in Scotland or final product made in Scotland. It could also pose problems for secondary processors that combine Scottish fish with products from elsewhere. What proportion of the final product would have to be Scottish in order to carry the label "Scottish"?

Case study - the Shetland Seafood Quality Certification Scheme



Shetland Seafood Quality Control Ltd. (SSQC) is an independent company based in Lerwick. It was formed in 1985, has an accredited laboratory and is involved with both the sea fishing and aquaculture industries in Shetland.

The whitefish scheme it operates has changed over the years to adapt to the changing needs of the Shetland fishing industry. The scheme has been in operation in its current form for approximately a year.

Every day, a member of staff from SSQC checks the quality of the fish landed at the market. The gutting, cleaning, icing and the quality of the fish are checked, as is the quality of the grading. SSQC then provides feedback to the vessels regarding the quality of the fish and what areas, if any, need improving. The vessel operator can then decide how to act on this advice.

In addition to providing the vessel operators with feedback about the quality of their fish handling and grading, SSQC also posts a "league table" of vessels in the market building to show which vessels have graded their fish most accurately. This "name and shame" tactic provides information to the processors and an incentive to the vessels to improve its practices.

There has not been a league table posted for some months and processors have made some complaints that grading standards have slipped and vessels are reverting to their old habits. Processors are, therefore, calling for more frequent "naming and shaming" to take place.

SSQC says that both vessel operators and processors are very happy with the scheme. Processors have noticed an improvement in the quality of fish landed and have been able to shift their emphasis from frozen to fresh fish products. There is also a feeling that skippers are beginning to realise consistently better prices because of the scheme, although SSQC has not investigated if or how prices have changed since the scheme began. Any change is, however, difficult to prove because of the great affect supply has on price (see Section 3).

The Shetland PO finances the scheme, so it is paid for indirectly by PO members. The majority of PO members are part of the scheme, although some prefer not to participate. No boats from outside Shetland are part of the scheme but SSQC states that there is no reason why they could not participate.

The SSQC brand is not currently applied to fish on the market. It is, however, used in the salmon farming industry on Shetland. Farms and processors are audited to SSQC standards and if they fulfil all the criteria, they are authorised to use the SSQC quality mark. They can then use the mark to promote their business and products to their customers.

The whitefish industry is not yet calling for the mark to use as a promotional tool but SSQC is investigating the possibility of applying the brand to fish on the market. They have awarded the SSQC brand to fish on the market in the past but this was based on historical catch quality and led to some problems. Vessels would land good quality fish until they were awarded the brand but would then let their practices slip a little so that the brand was being awarded to poorer quality fish.

If the brand were awarded in the future, it would be based on inspections carried out on the day of the auction. Historical data could also be used to build up a picture of which vessels landed consistently high quality fish.

SSQC does not audit the market or check the practices that occur on the market. This is the task of Shetland Seafood Auctions (SSA). SSQC does, however, work closely with SSA and the whitefish scheme is part of a strategy aimed at moving towards electronic auctioning. Before product can be auctioned and sold electronically, a system to ensure standards and traceability needs to be in place. SSA states that the SSQC whitefish scheme has generated interest in Shetland-caught fish from buyers outside Shetland and hopes that electronic auctioning will allow these and other remote buyers to purchase fish of a guaranteed quality and freshness from the auction.

All sectors of the industry – port operator, auction operator, PO, processors and fishermen – have been involved in the SSQC scheme's design and operation and are co-operating to ensure that the Shetland fishing industry as a whole reaps the benefits. Mainland buyers have overlooked Shetland in the past because of its remoteness. It does, however, have a reputation for very fresh fish, due to its proximity to major fishing grounds but this advantage can be lost through poor handling at sea. The SSQC scheme aims to help retain this natural advantage and offer the product to a wider market by working towards the introduction of electronic auctioning.

9. Main findings

Fish quality

- Scottish fish is no better or worse than that caught by vessels in other fleets. There are Scottish vessels landing high quality fish and vessels landing poor quality fish.
- The main causes of poor or reduced fish quality that can be altered by changing fishing practices are:
 - Overfilling boxes – continues because of quota issues, buyers' habits and selling fish per box
 - Reduced crew size
 - Lack of skilled crew
 - Longer trip length
 - Fishing method
- There are two views regarding the future importance of quality in the fishing industry:
 1. **Global view** - Quality becomes **more** important:
 - lack of fish means fishermen have to focus on quality to get more for what they catch.
 - quota leasing and buying means fishermen have paid for the fish before it has been caught so they have to make more from the fish they catch to cover this cost.
 - fish becomes scarcer and more of a luxury food so customers will accept nothing but the best quality.
 - increasing globalisation means that Scottish-caught fish is in competition with fish from all over the world that is becoming easier for processors to source. Scottish vessels need to produce product of a quality able to compete on the world stage.

2. **Small-world view** - Quality becomes **less** important in the future – lack of fish means that demand always outstrips supply. Fishermen know that whatever they land they will be able to sell. There is no incentive to improve quality because high prices can be realised for fish of any quality. This fails to recognise the increasing globalisation of the seafood market.
- Improving fish quality is an important issue for processors and retailers but improving the **consistency** of landed fish quality is equally as important.
 - Quality plays only a small part in determining first hand sale prices of fish – **supply** is the most important determinant.

Weighing at sea

- It is widely believed that weighing at sea will become **more prevalent** in the future.
- There are vessels weighing at sea that are not part of the Seafood Scotland Scheme.
- There is **resistance to weighing at sea** in general from some buyers / fish salesmen because it is seen as a threat to their role in the industry and would eliminate the buying of “free” fish.
- Processors would like to see **more** weighing at sea or weighing before first hand sale of fish.
- Weighing at sea **does not automatically improve quality**, other factors are also important e.g. gutting, washing, iceing, trip length.
- Weighing at sea **has not eliminated** the practice of **overfilling** boxes.
- Weighing at sea could improve the **consistency of quality** and lead to more **consistency of price**.

Accreditation & branding

- Food accreditation schemes guarantee both the **process** and the **product**.
- Accreditation schemes can be designed to suit the needs of the customer – they can be as basic or complex to suit requirements.
- Accreditation **used to** offer a premium price. Accreditation and assurances of health and hygiene are now expected by multiples and consumers. Accreditation is, therefore, seen as a way of **maintaining market share** rather than offering a price premium.
- There appear to be no specific / insurmountable problems to designing and implementing an accreditation scheme for sea fish in theory. Getting people within the industry to agree to and abide by a scheme is much harder.
- **Traceability** is an important aspect of accreditation.
- **Independent monitoring** of a scheme engenders greater consumer confidence and lessens potential conflicts of interest than industry monitoring.
- Labelling and logos can be misleading.

- “Scottish” branding could have practical problems – what exactly would it mean? How Scottish would a product have to be to be labelled as Scottish?
- The use of the Seafood Scotland Scheme as a marketing tool would have to be approached with care so as not to undermine consumer confidence in sea fish.

Consumer attitudes

- Consumers are generally **not well educated about fish and seafood**. There is limited knowledge about the industry (catching and processing) and about handling, storing, preparing and cooking fish in the home.
- Purchase decisions are influenced by factors other than quality e.g. environmental issues, price.
- Consumers **do not readily recognise or use quality marks** when making purchase decisions. They rely on other factors such as the appearance of the product and the reputation of the store.
- There is consumer **confusion** over what brands mean and between actual quality brands and other labels such as “organic”
- Consumer demand for quality assurance and brands **depends on the type of product**. It is not seen as necessary for fresh fish but is expected for premium value added products.
- Regional branding is **only beneficial for certain products** from certain areas that **already have** a residual association with high quality with consumers e.g. salmon from Scotland or Ireland, lamb from New Zealand.

The Seafood Scotland Quality Schemes

- There is a **lack of knowledge** regarding the Seafood Scotland schemes in all sectors of the industry.
- The main thrust of the Whitefish Scheme is seen to be weighing at sea. Other **aspects are lost** such as the importance of ensuring correct gutting, icing and hygiene.
- For fishermen, the benefits of the scheme are **not clearly seen** to outweigh the perceived costs.
- Processors and retailers are **supportive** of the schemes.

The future of the Schemes

- There is **no clear consensus** among fishermen as to how the Scheme should develop or even if it is needed.
- The expansion of the scheme to on shore operations does not seem to interest fishermen.
- A scheme to promote good handling and hygiene practices in ports and markets is **not necessary** because standards for hygiene and Codes of Practice already exist, they are just not adhered to.
- Market users know they are unlikely to be prosecuted or punished for not respecting hygiene codes and have **no motivation to change** their habits or adhere to voluntary hygiene schemes.

- The dispute between market operators and EHOs over who is responsible and has authority to enforce market hygiene regulations contributes to the current situation of non-compliance and is **a major stumbling block** to any future scheme.
- There is **no clear consensus of opinion** as to whether a scheme for processors would be welcomed by the processing industry or recognised / demanded by their customers.
- Retailers would welcome an accreditation scheme if it reduced the number of audits they had to carry out on their suppliers.

10. Areas for action

This section highlights areas for action in each sector where progress can be made in improving fish quality, hygiene and traceability – all seen as areas where improvements need to be made and important in achieving any form of accreditation. These are general areas for action that can be progressed by any industry body or group of organisations. The involvement of Seafood Scotland is only explicit in the action areas identified for the catching sector and which directly relate to the furtherance of the Vessel Quality & Hygiene Scheme. Areas identified in other sectors may require some involvement on the part of Seafood Scotland, but other organisations already in existence would be better placed to make progress on them. There are five areas where progress could be made:

- The catching sector
- In markets and ports
- Processors
- Accreditation and branding
- General action areas

The catching sector

- **Show more explicitly that the benefits of the Scheme outweigh the costs.**
At present, a large proportion of the catching sector does not see the benefits of belonging to the Seafood Scotland Schemes. The costs seem much larger than any potential benefits and this view needs to be reversed. This can be done by showing that the costs are lower than skippers think they are i.e. that there is assistance to purchase equipment, that additional time inputs are not prohibitive and that space in the fishroom is not a major constraint. It can also be achieved by highlighting more explicitly the benefits of joining i.e. consistently better prices and overall increased earnings.
- **Clarify who is involved in the Scheme.**
Currently, there is some confusion over what Seafish's involvement in the Scheme is and there is a degree of overlap between Seafood Scotland's activities and those of various departments within Seafish. Clarifying who is involved in the Scheme and their relative roles will reduce confusion and ensure that the industry knows who to approach about the Scheme.
- **Promote the Scheme more widely.**
There is a lack of informed knowledge about the Scheme outside the vessels that are already part of the pilot scheme. Seafood Scotland should promote the Schemes to more vessels, to encourage greater membership, and to processors and market users to raise awareness and increase co-operation.

- **Make sure the Scheme is flexible enough to incorporate a range of sizes and ages of vessel.**

There is an important difference between quality and hygiene. Large vessels may be able to meet hygiene practices and use weighing at sea equipment but they may not necessarily land high quality fish because of long trip length, the amount of fish in net, etc. Smaller vessels that only make one or two day trips may land excellent quality fish but may find it difficult to weigh at sea because of space constraints or to meet hygiene codes due to the age of the boat. Seafood Scotland must ensure that the Scheme is inclusive, assisting smaller and older vessels to make the most of the high quality fish they catch by improving hygiene standards, while helping larger vessels improve fish quality through improved handling and crew training.

- **Highlight all aspects of the Scheme.**

At present, the Scheme is seen as a weighing at sea scheme. Many interviewees were keen to stress that weighing at sea does not automatically improve fish quality. The other aspects of the Scheme such as proper crew training, correct washing and gutting, etc. need to be promoted to the fishing and on shore sectors. Reducing levels of confusion concerning what being part of the Scheme actually means will help to reduce the perceived barriers to joining the Scheme.

- **Ensure members are abiding by the Scheme.**

The Scheme will only be supported by the processors and retailers if it actually assures better quality and consistency of quality. This will only occur if members follow the guidelines. Seafood Scotland needs to ensure that regular checks are made of all vessels and of catches by all vessels on the Scheme. There are already some reports of poor quality fish on markets being labelled with the Seafood Scotland logo. This will only serve to undermine the Scheme in the eyes of skippers, processors and retailers. These reports seem to be unfounded and are likely to be fish that has been labelled as being weighed at sea and assumed to be part of the Seafood Scotland Scheme.

- **Ensure that weighing at sea is not nominal weights under a different name.**

The use of average box weights has led to overcompensation by fishermen and a continuation of overfilling. For weighing at sea to have a positive effect on fish quality it has to result in a reduction in the amount of fish placed in boxes.

Markets

- **Work towards ensuring existing hygiene codes and rules are adhered to.**

A new port scheme is not necessary as port operators insist that adequate rules and Codes of Practice already exist, they are just not adhered to by market users. Market operators and EHOs need to co-operate more effectively to ensure that required legislation is met. The co-operation of market users is also needed if additional, voluntary codes are to be implemented and followed.

Increased dialogue and co-operation between market operators, EHOs and market users should be encouraged through the use of seminars and workshops for example. The role of market operator and EHOs in ensuring good hygiene practices on the market should be clarified and increasing the dialogue between all players will help to achieve this.

Increasing the level of adherence to hygiene practices on the market will also reduce one of the reasons for opposition to the vessel scheme, namely why should fishermen look after their catch if it is then mistreated on the market? This could help to persuade more vessels to join the Scheme.

- **Assist small and large ports.**
Small ports often have a supply of very fresh, high quality fish from small day boats, but need additional assistance to meet hygiene regulations and to ensure a temperature controlled environment. These ports should be helped to realise the high prices that are achievable for this top quality product. Larger ports often have modern, temperature controlled fish markets but need to work towards ensuring that these advances are not undermined by the continuation of bad habits by market users.

Processors

- **Work towards a basic quality, hygiene, safety, health standards regularly inspected and implemented.**
This is associated with the call for licensing from the processing industry. In order to avoid any duplication of effort or working at cross-purposes, Seafood Scotland should assist and co-operate with the move to implement basic, regularly inspected standards in all processing plants. It is not essential for Seafood Scotland to be heavily involved with this move, as there is an existing impetus for change within the industry.
- **Work towards developing a single standard for top quality fish and processing premises.**
The fish processing industry appears to be in a similar situation to that which farmers found themselves in before QMS was developed – different retailers all demanding different standards. Moves should be made to develop a single industry standard that is recognised by processors, suppliers and retailers that businesses can aim for if they want to. This will require co-operation among processors', their representatives and retailers.

It is not essential for Seafood Scotland to be greatly involved with implementing and progressing this move. It should, however, co-operate and assist with any moves to develop a standard that requires the use of top quality raw material to gain accreditation and ensure the vessel schemes mesh well with any proposed processor scheme.

Accreditation & branding

- **Focus on accreditation within the industry.**
Improving quality, consistency, hygiene and traceability within the supply chain will be demanded more and more by retailers. Assisting the industry achieve this is important and will help maintain position in the global seafood market.

The use of accreditation and quality branding to promote fish to the end consumer is of marginal benefit at best. Consumer perception of the standards within the industry is much higher than the standards actually are. Making the consumer more aware of hygiene and quality progress could be potentially damaging to the industry.

- **Aim towards independent accreditation.**
There are fewer risks of any conflicts of interest and independent monitoring helps to promote confidence in the product. Any accreditation aimed at either the industry or the end consumer should be independently monitored.

General areas of action

- **More focussed approach.**
There is a certain amount of confusion over what Seafood Scotland is actually trying to achieve and who it is supposed to benefit – fishermen, processors, consumers, the fish industry as a whole.

There also seems to be some duplication of effort. For example, does the idea of a Seafood Scotland quality scheme for processors duplicate the calls for licensing of processors or does the implementation of one make the other obsolete? Similarly, Seafish have appointed two quality assurance officers to help vessels and ports improve fish quality. This appears to duplicate the efforts of Seafood Scotland and creates confusion among the industry as to who is doing what.

It is essential that Seafood Scotland has clearly defined and attainable goals that are relevant to the industry. It is also essential that the industry know exactly what Seafood Scotland is trying to achieve. Full transparency will promote co-operation and reduce levels of suspicion between sectors that is inherent in the industry.

- **Improve co-operation between sectors.**

There is a great deal of mistrust between the different sectors of the industry. Increasing the flow of constructive information between processors and vessels will help to reduce this and increase co-operation towards a common goal – improving quality and realising consistently better prices. The SSQC scheme provides a good example of co-operation across sectors. It is not necessary for Seafood Scotland to be the driving force behind this move. Lack of co-operation and trust are problems throughout the whole UK seafood industry. Improving dialogue and co-operation should be a goal for all industry bodies, including Seafish.

- **Educate consumers.**

This could be a double-edged sword, so should be tackled with caution. Educating consumers would mean they would know more about the industry and would probably demand better standards. They would, however, become more knowledgeable and comfortable buying, preparing and cooking seafood, which could improve sales, especially of non-traditional fish species (i.e. not cod, haddock, plaice).

This too is a problem throughout the UK and should be tackled by all industry bodies and companies. It would be best tackled by a central organisation rather than a regional one.

These areas have all been highlighted as “areas for action” and not “recommendations” because the consultants believe that before any action is taken the following question needs to be addressed:

Should Seafood Scotland be undertaking these tasks?

All the aims and motives of Seafood Scotland and the quality and hygiene scheme are laudable and the goals need to be achieved. They do, however, all appear to fall within the remit of Seafish. All the problems that Seafood Scotland is addressing are problems encountered by the industry in England, Wales and Northern Ireland, not just Scotland. The consultants believe that the areas for action apply equally well to the whole UK industry and that the whole UK industry could benefit from the initiatives of Seafood Scotland and by making progress in the areas of action highlighted above.

Seafood Scotland could act as an agent for Seafish in improving landed fish quality through the Vessel Quality & Hygiene Schemes. Using Seafood Scotland rather than Seafish to make forward progress on improving on-board handling could potentially mean more skippers would be involved than if it was a Seafish Scheme as it would side step some of the bad feeling towards Seafish that exists within the industry. However the question is decided, it is necessary to clarify the respective roles of Seafood Scotland and Seafish within the Schemes.

11. Recommended strategy

1 Focus

Seafood Scotland currently has a very broad focus with activities at catcher, market, processor and retailer level. Resources are finite and appear to be spread quite thinly.

In the context of quality standards, the consultants' recommend that Seafood Scotland **focus on the initial stage** in the food chain – the catching sector. It is here that most improvement can be made and where the actions of Seafood Scotland are not likely to duplicate or come into conflict with the actions of other organisations.

Vessels already on the Seafood Scotland Schemes, both whitefish and pelagic, believe it is a positive move for them and the industry. Seafood Scotland needs to build on this and concentrate on getting the Schemes working for these two sectors before moving into other fisheries such as *Nephrops* or shellfish, or into other, on-shore sectors of the seafood industry.

2 Clarify

Clarify the tasks of Seafood Scotland and Seafish. Ensure that fishermen know who is responsible for the Schemes and what the respective roles of Seafood Scotland and Seafish are within the Scheme. **Avoid any duplication of effort** and **reduce the potential for confusion**.

3 Prove

The most important issue is to **show that the Scheme is a benefit**, that it does improve profitability and that the additional time, money and space requirements are not as great as many believe and that the **benefits outweigh the costs**.

Seafood Scotland should undertake a study to prove that correct on-board handling and weighing at sea lead to consistently better quality fish and consistently better prices²¹. Any study should be undertaken over a period of time to allow for any seasonal differences in price. Ideally a study should follow several boats on the scheme and several boats not on the scheme for a year to show how the annual earnings and time inputs on the vessels differ. This is a substantial undertaking and would require close co-operation from skippers. It would, however, show more conclusively than any previous short-term study that changing handling practices and including weighing at sea leads to improved earnings.

There is a lack of transparency in the way fish products are specified and sold caused by the use of nominal weights and overfilling. When combined with the barriers to open competition between buyers that exist (e.g. collusion between buyers before the auction begins), the linkages between quality and price become distorted and vague, making it more difficult to clearly illustrate the benefits of the Scheme. The vessels that have achieved the greatest financial benefit from improved on-board practices have done so by selling their fish via private contract rather than across the market. Contract selling eliminates the vagaries associated with both selling and buying through the market. Electronic auctioning of fish will be introduced in Scotland in the near future. It is a specific goal in Shetland and other ports such as Peterhead, Fraserburgh, Mallaig and Eyemouth. Some of Seafood Scotland's efforts should be focus on how the Quality & Hygiene Schemes when operated in combination with transparent selling systems can provide advantage to vessel, port and processor.

²¹ Seafood Scotland is carrying out a study of a similar nature to that proposed here

4 Promote

Promote the Schemes in general to attract more vessels and ensure that **all aspects** of the Schemes are highlighted – on-board handling, correct gutting, iceing, hygiene and traceability - not just weighing at sea.

Ensure the Schemes are **flexible** and can be applied to vessels of all sizes and ages and in different ports, not just those in the North East of Scotland.

Seafood Scotland should promote the Schemes to vessels through the trade press, by visiting ports to speak with skippers and through fishermen's organisations. The best way to promote the Schemes is to show that they are a benefit (see point 2).

The promotion of the other aspects of the Scheme e.g. products of on-board handling, can be achieved by producing easy to use guides for fishermen to show the difference between poor gutting, washing, boxing and correct practices. Posters, cards and booklets that can be used as on-board references in the fishroom and video guides can be employed (similar to the BIM guide to whitefish quality produced under PESCA)²².

Demonstrations by fishermen already on the Scheme and by Seafood Scotland personnel in ports and at trade shows such as Fishing 2001 would also raise the profile of the on-board handling aspects of the Scheme.

Positive feedback from processors that are supplied by vessels on the Schemes would further support the implementation of better handling practices and would help to improve co-operation and increase dialogue between the sectors.

Seafood Scotland must ensure that the promotional material they produce (demonstrations, videos, guides, etc.) is well illustrated and informative without being condescending. This is not a failing of the Scheme at present, but is a potential hazard that must be avoided.

²² Seafood Scotland is currently developing a user guide and video

Annex

Questionnaire sent to port / market operators

1. Do you think Scottish seafood has a good reputation for quality with:
 - a. processors yes / no
 - b. consumers yes / no

2. Do you think there is a need to improve the quality of seafood landed by Scottish vessels?
yes / no

3. Do you think that a scheme to promote better handling of fish on board vessels is a good idea?
yes / no
please state why

4. Do you think a scheme to promote good practice when handling fish in ports / markets is a good idea?
yes / no
please state why

5. Would your port / market be interested in joining such a scheme?
yes / no
please state why

6. Have you heard of the Seafood Scotland Quality & Hygiene Scheme for fishing vessels?
yes / no