The Clyde Inshore Fishery Study

Key Features

Securing a sustainable future for the Clyde inshore fishery

The establishment of a local fishery management group is the route to a sustainable future for the Clyde inshore fishery. A new management group, including key stakeholders, will first need to agree goals and objectives for the fishery. These objectives could be delivered using fisheries management tools, improvements to catch quality, development of a strong enforcement regime, and implementation of product traceability and marketing initiatives. Although the Clyde inshore fishery has been in decline in recent years, the potential for a significant, sustainable and viable future does exist.

Background

The UK inshore fishing industry is becoming increasingly important, with three in every four UK vessels now fishing inshore waters. The current state of the white fish sector, low Nephrops prices, changes in work patterns and recent fisheries management measures are all putting additional economic pressures on the UK inshore fleet.
In consultation with SIFAG[1] and the Scottish Fishermen's Federation, Seafish undertook a detailed study of the Clyde inshore fishery in order to: -

- trace the development of the Clyde fishery
- present an analysis of the current economic situation and management tools utilised in the Clyde fishery
- present stakeholders' views on the effectiveness of current fisheries management tools and issues facing the industry
- explore alternative fisheries management options

The study involved a combination of desk-based research and fieldwork. Over 60 interviews with skippers and vessel owners, processors, merchants, local authorities, hauliers and other onshore interests including fish farmers, were carried out. Interviews took place in Argyll, Ayrshire and Northern Ireland.

The study report does not recommend a detailed alternative management plan for the Clyde, but identifies stakeholders' views on a range of management issues, and steps that can be taken to improve the current management scheme.

Industry Structure

The Clyde inshore fishery has declined in its economic and social importance to the local community in the last 40 years, but continues to make an important economic contribution to the local economy.

The number of vessels registered at Clyde ports has remained at around 350 from 1995 to 2001, although in reality there are usually around 100 to 125 vessels fishing the Clyde grounds. The Clyde-based mobile gear fleet now fishes almost exclusively for Nephrops.

The volume of white fish landings fell by 86% from 1987 to 2001, while shellfish landings increased by 6% over the same period. Shellfish now accounts for 91% of the total value of all seafood landed into the Clyde ports. Nephrops and scallops are the two most important species for the Clyde Fishery. The total value of landings at Clyde ports was £15.6m in 2001, a fall of 17% from 1987.

Table 1. Landings into Ayr & Campbeltown Districts

	Volume (Tonnes)	
	1987	**2001**
Demersal	7,551	1,066
Pelagic	3,222	186
Shellfish	11,663	12,399

The survey estimates that there are 300 to 400 employed fishermen usually fishing the Clyde grounds, and between 350 and 425 people employed in Clyde based fish

[1] Scottish Inshore Fisheries Advisory Group

processing, fish farming and other onshore activities. In addition, a number of jobs are supported by processors, based mainly in the Scottish central belt and Northern Ireland, which regularly purchase fish caught in the Clyde.

Current Issues

Over-fishing and the sustainability of fishing techniques

A range of views were reported on the current level of fishing in the Clyde. 67% of static gear vessel owners (creelers) believe the Clyde is currently over fished compared to 15% of trawler owners (Table 2). Contrasting opinions on the perceived sustainability of fishing methods employed were also reported. The majority of static and mobile gear fishermen believed their own method to be sustainable. Interestingly, 51% of trawler owners believe creeling to be a sustainable fishing method, with only 8% of creelers perceiving trawling to be a sustainable method of fishing the Clyde.

Table 2.
Fishermen's opinions on over-fishing and sustainability of fishing techniques *(percentage of those who answered yes, no, or expressed no opinion)*

	Static Sector			Mobile Sector		
	Yes	No	No Opinion	Yes	No	No Opinion
Is the Clyde overfished?	67%	33%	-	15%	85%	-
Is static gear fishing in the Clyde a sustainable method?	85%	-	15%	51%	19%	30%
Is trawling in the Clyde a sustainable method?	8%	77%	15%	70%	4%	26%

Gear Conflict

Fish stocks are a common resource, which, in most cases, attract no property rights. Fishermen can target the same fish stocks and, as a result, conflicts can arise. In the Clyde an expansion in fishing for Nephrops with creels and changes in trawl gear technology mean that in some instances creelers and trawlers now fish the same grounds.

In some locations there are reported conflicts between creelers and trawlers.

On occasions a breakdown in communication has occurred, and fishers have alleged incidents of towing of static gear by trawlers and unclear marking of pots by creelers.

There are two sources of financial cost of the conflict: the cost of replacing lost or damaged gear and the loss in earnings from reduced fishing time. Estimates made by fishers of the financial losses incurred due to such conflicts were found to be considerable. For example, up to £12,000 in lost fishing gear and an estimated £20,000 worth of lost fishing time for 2002 was reported by one creeler.

In both sectors, skippers believe safety is threatened by the conflict. As a direct result of the conflict, 64% of creelers and 55% of trawler owners reported altering their fishing activity. Some skippers expressed concern that the current conflicts could hinder attempts to build a sustainable future.

Economic Pressures

Like the majority of the UK fleet, vessels fishing the Clyde are finding it harder to make a profit. The main concern of Nephrops vessel owners is relatively low prices. Low earnings combined with high fuel and insurance costs in particular are threatening the economic viability of many trawlers.

The low profitability experienced by most sectors of the Clyde fleet in recent years has serious implications for the long term economic sustainability of the local industry. Current tight margins restrict the ability of owners to replace vessels and other fishing equipment.

Clyde processors face pressures similar to fish processors in the rest of Scotland. Research by Seafish[2] indicates that the Scottish fish processing industry has been operating with low margins in recent years.

The fish farming industry is becoming an increasingly important part of the Scottish seafood industry. There are eleven aquaculture businesses within the Clyde, farming salmon, other fin-fish, and shellfish. Despite recent expansion and a good reputation for quality, the Scottish aquaculture industry has poor profits and low financial reserves.

Labour Resource Issues

Many businesses reported difficulties in attracting crew or staff to work in the seafood industry.

Table 3. Percentage of those questioned who experienced problems recruiting crew or staff

	Yes	No
Clyde static gear vessel owners	75%	25%
Clyde mobile gear vessel owners	62%	38%
Clyde onshore businesses	71%	29%

Skippers believe the physical nature of the work, the long and unsociable hours, poor and variable wages, and a poor industry image, have all contributed to the current recruitment problems.

[2] Costs and Earnings of the UK Sea Fish Processing Industry 2001

Onshore businesses also reported recruitment difficulties, with poor wages and the availability of alternative onshore employment as contributory factors. Many businesses believe local people do not see the seafood industry as an attractive employment opportunity. 51% of all those surveyed also reported difficulties in retaining crew and staff.

Current Management Regime

Fishing effort in the Clyde is controlled by a number of measures (e.g. closed areas, weekend trawl ban, vessel length restrictions, quota).

Analysis of fishermen's opinions on the effectiveness of the current fisheries management regime revealed:

- 72% (33 respondents) believe the involvement of fishermen in the management process is either poor or unsatisfactory
- 69% (29 respondents) believe that scientists' involvement in management decisions is either poor or unsatisfactory
- 90% (19 respondents) believe the degree of local control of fisheries management in the Clyde to be either poor or unsatisfactory
- stakeholders' opinions on the resources employed to enforce management regimes was mixed
- 77% (13 respondents) believe integration with other stakeholders to be either poor or unsatisfactory

Inshore Fisheries Management Options

There are many alternative fishery management regimes in existence throughout the world, and learning from such schemes can be applied to the management of the Clyde fishery.

A variety of management tools are available, for example, closed areas, restriction of days at sea, restricting mesh size. Whichever measures are implemented in Clyde waters, fishermen's views on their appropriateness and effectiveness should first be assessed. Without fishermen's buy-in, particularly for voluntary measures, any management regime would have little chance of success.

Table 4 highlights the range of views that fishermen hold on fishery management tools.

Fishermen surveyed were generally in favour of restricting effort, with just over half the respondents in each sector in favour of restricting the numbers of days at sea.

There is little support amongst fishermen for the permanent closure of areas to all fishing or to individual gear types.

There is mixed support for temporary closed areas. Two thirds of creelers are supportive of such a measure, although trawler owners are against the temporary closures of areas to fishing by trawlers and creelers.

There is strong support for the adoption of technical measures (restricting the number of creels, the number of dredges, and mesh sizes), and the current weekend ban.

Support for all the above measures is driven by the desire for long-term economic sustainability of the fleet. Skippers and vessel owners who support such measures appear willing to accept some short-term losses in order to ensure economic benefits in the medium to long term. Some form of short term financial support from government was highlighted by fishermen as necessary to preserve the current size of the fleet. Further analysis of this suggested approach would be required.

Table 4. Fishermen's opinions on possible management tools - percentage of those questioned who were in favour, against or expressed no opinion

Restrictions on:	Static Sector			Mobile Sector		
	In favour	Against	No opinion	In favour	Against	No opinion
Days at sea	55%	45%	-	50%	44%	6%
Permanently closed areas: all fishing	13%	75%	12%	31%	62%	7%
Permanently closed areas: static gear	28%	72%	-	30%	59%	11%
Permanently closed areas: mobile gear	57%	43%	-	25%	75%	-
Temporary closed areas: all fishing	63%	37%	-	33%	43%	24%
Temporary closed areas: static gear	66%	34%	-	14%	64%	22%
Temporary closed areas: mobile gear	66%	34%	-	29%	71%	-
Number of creels	74%	26%	-	100%	-	-
Number of scallop dredges	83%	17%	-	76%	13%	11%
Mesh sizes	88%	-	12%	54%	46%	-
Weekend ban	58%	29%	13%	75%	20%	5%

Clyde Fishery Management - the Future

If the *status quo* remains, a future of economic inefficiency, minimal capital investment, reduced revenue and earnings, gear conflict, short term job losses (onshore and at sea), and long term recruitment problems may result.

The main threats to the Clyde fishery include inappropriate fisheries management, gear conflict, oversupply and reliance on Nephrops tails, and labour shortages. Opportunities do exist however. If changes are made now a more prosperous future may arise, with increased earnings and capital investment, increased employment, and long term economic viability for Clyde based vessels.

The key to facilitating change is co-operation. 79% of those surveyed recognise that co-operation between stakeholders would help to build a sustainable future for the Clyde Inshore fishery.

Recommendations

1 Mediation between creelers and trawler owners is required in the short-term to reduce fishing conflict and improve the economic efficiency of the Clyde inshore fishery. The commitment of the Scottish Executive to short-term mediation is crucial. The appointment of an independent mediator may be required.

Mediation should start as soon as possible. Without resolving the conflict, positive fisheries management measures cannot be developed.

2 Establish a Clyde Fishery Management Group in the medium term, representing all key stakeholder groups. Trawler owners (including Northern Irish interests), creelers, processors, merchants, farmers, environmentalists, the Scottish Executive, and other local interests must be included. 83% of those surveyed believe a local management group is a good idea in principle, and 79% indicating a willingness to participate in such a group.

It would be up to members of a local management group to decide on the specific stages that are needed to develop a suitable management framework.

3 A local management group first needs to **agree goals and objectives for the fishery**. There must be trade-offs between different social and economic objectives. For example, stakeholders must decide whether the aim of the fishery is to try and maximise local employment (within the constraint of maintaining sustainable catch levels) or maximise economic returns from the fishery (which might mean fewer employees).

4 Develop future management of the Clyde. A local management group should develop measures that will minimise the conflict between sectors and allow viable trawl and creel fishing in the long term. The group should consider the extent of support or opposition to the individual management tools mentioned above.

5 Improve catch quality. This may be through the agreement of measures to improve the freshness and grade of seafood. If quality can be improved, then Clyde fishermen and onshore businesses may be able to differentiate their product from other regions in the UK. Stakeholders surveyed recognise that increasing the quality of Clyde seafood is a key way to increase revenues for the same volume of fish.

6 Initiate traceability and marketing initiatives. Food hygiene and quality are important in retail markets. Consumers are demanding more information about the quality and source of products when making their purchasing decision. The adoption of quality handling techniques and participation by fishermen and fish processors in Seafish's pilot traceability scheme should therefore be encouraged.

Working groups should also be created to establish local marketing charters, with two or three "brands" e.g. Mull of Kintyre Quality Seafood, Ayrshire Quality Seafood. To utilise these brand names, fishermen and onshore businesses would have to agree to abide by sustainable fisheries management measures, and any additional handling measures that are proposed. Stakeholders are generally in favour of marketing schemes that will improve the image of Clyde fish and increase the price that Clyde fish commands.

7 Develop a **strong enforcement regime**. Effective policing of fisheries management measures must be put in place, whether this is through self-policing or government led.

The Scottish Executive is viewed as not having played an active role in the fishery, in terms of policing, resolving conflicts, or development of an effective management regime. With poor design and enforcement of current fisheries management rules, individual stakeholders have no incentive to comply with regulations or engage with other stakeholders or government.

Incentives and penalties must be established to make adhering to rules economically beneficial and breaking rules costly.

To order copies of the full report *"Clyde Inshore Fishery Study"* J M Watson and J T Bryson, published Seafish (July 2003)
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