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Internal Briefing

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The Scottish Conservation Credits Scheme – moving fisheries management towards conservation

This document provides an overview of the Scottish Conservation Credits Scheme, considering the rationale behind the scheme and describing the technical details of the measures put in place under the scheme. It concludes with a short section reviewing what the scheme has brought to each of the key player groups involved in the scheme: government, industry and NGOs from their own perspectives.

INTRODUCTION

The fishing industry in Scotland comprises a significant proportion of the United Kingdom's industry, and is responsible for landing about 70% of total UK landings. It is of great social, economic and cultural importance as fishing communities are often remote and fishing is their main source of employment.

Traditionally the main species targeted by the Scottish demersal fisheries are cod, haddock and whiting, which are caught in shelf waters throughout the northern and central North Sea and to the west of Scotland in both coastal and offshore waters, predominantly using towed gears such as trawls and Scottish seine. Monkfish are the most valuable demersal fish species, caught in the mixed demersal fisheries in the northern North Sea, and a target fishery in deeper waters off the shelf edge to the north and west of Scotland. Nowadays the most valuable fishery in Scotland is the *Nephrops* fishery, the pelagic fishery for mackerel is the second most valuable.

All the demersal fisheries are mixed fisheries, targeting more than one species, and with a bycatch of both non-target species and target species that cannot be landed due to size, market conditions or quota constraints. Thus, discarding occurs. In particular, the discarding of large marketable sized cod has increased significantly over the past years.

While demersal fisheries in the North Sea and to the west of Scotland are managed under the European Common Fisheries Policy (CFP) using a combination of quotas and technical measures, such as regulations on minimum landing fish size and fishing gear configuration, the TACs for several North Sea stocks (including cod, haddock and whiting) are set jointly with Norway. In EU Council in December 2007 Member States were given the flexibility to run their own days at sea scheme as a pilot ahead of future

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INVESTOR IN PEOPLE

EU-wide implementation of “effort pot” schemes. The Scottish Government took up this opportunity and on 1st February 2008 the Scottish Conservation Credits Scheme was launched.

THE SCOTTISH CONSERVATION CREDITS SCHEME

The overarching aim of the Conservation Credits Scheme (CCS) is to improve fisheries management in Scotland by adopting best practices in stock conservation while supporting (and ensuring) fishing communities’ future economic prospects. These strong conservation orientated objectives provided a sound foundation for implementing the objectives of the new EU cod recovery plan in December 2008, and meeting the requirements of this management plan are now the focus of the group.

The CCS is run by the Scottish Government Marine Directorate (SGMD) and advised by a steering group with members from industry, science and environmental NGOs. At present WWF is the only eNGO represented. There are approximately 25 members on the Steering Group which meets monthly to assess the progress of the CCS. The fact the CCS is a forum, in which government, science, industry and NGOs discuss the proposed measures gives all a degree of ownership. This helps ensure buy-in from the fishing sector.

Furthermore as the name implies, the CCS credits fishermen for adopting conservation measures with a currency of real value to them – additional days at sea and the possibility to operate under the more flexible conditions of “hours-at-sea”.

CHALLENGES FOR THE SCHEME

This is an innovative scheme, and the first of its kind in European waters. It has had to build consensus towards solutions that secure economic returns along with a long term future for fish stocks’. Industry has had to make many short term sacrifices in recognition of the long term benefits the CCS should provide.

The scheme has been successful in gaining the commitment of industry. It has also gained international recognition, with several other countries replicating either part of or the whole scheme. For example, closures are already in place in the Norway, the Faeroes, Sweden and the UK and a network of Real Time Closures must be implemented in all European waters from September 2009 under the EU/Norway agreement, while Westminster are undertaking preliminary discussions with industry in mind of establishing an English version of the CCS.

MEASURES IN PLACE

Under the revised cod recovery plan agreed to in the EU regulations of December 2008 there is a commitment to reduce cod mortality by 25% in the first year of the plan. This can be achieved by a number of means. The Scottish government has opted to achieve the reduction through a two tiered approach, by cod avoidance and then by a reduction in effort. Cod avoidance is being done by a number of measures. These include:

⇒ Closures

A series of Real Time Closures (RTCs) have been set up across the North Sea. The mechanism for triggering a RTC is a predetermined number of cod per hours fishing. This number has been refined over the past year and now stands at 40 cod (all cod, not just spawning cod). There has been considerable work done to decide on this value within the CCS. By means of a combination of ongoing inspections and analysis of Vessel Monitoring System (VMS) data and associated landings, there should be a

maximum of 9 closures in place at any given time with an aim of having at least 6 closures in place at all times. Samples are taken either by Scottish or Norwegian inspection vessels, and fishermen are encouraged to advise the government about areas of high cod density.

The RTC is set automatically for a period of 21 days, which has been shown to be long enough for cod aggregations to disperse. Each RTC has an area of a maximum of 50 square miles, and there cannot be more than three RTCs in a given Commercial Impact Zone (of 25 miles radius). Vessels are notified of the closures by letters to associations, email, radio, etc... (Figure 1).

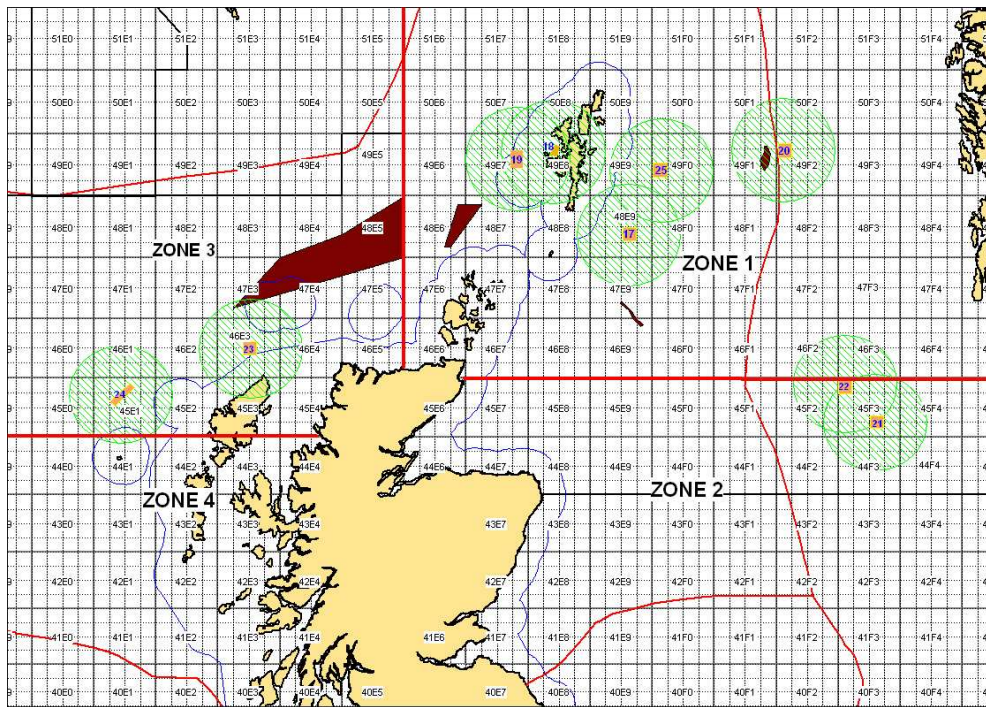


Figure 1 – Real Time Closures in place in Scottish waters on 16th March 2009. RTC are the yellow squares, green circles are the Commercial Impact Zones and brown areas are seasonal/permanent closures.

The contribution of RTCs to the reduction of cod mortality in 2008 was estimated, and this number has been extrapolated to show that a total of about 140 RTC over the whole year should lead to a reduction in cod mortality of around 10% in 2009.

In 2008 RTCs were implemented on a voluntary basis and compliance was almost 100% by fishermen both from the Scottish fleet involved in the CCS and by foreign vessels fishing in Scottish waters. This year RTCs have been extended into the Norwegian fisheries sector.

The second level of conservation areas in Scottish waters are called "amber" areas (RTCs are red, less abundant cod areas are amber) (Figure 2). These areas are identified by cross-referencing VMS position data with landings data extrapolated from vessel log books; the data can be aggregated over any chosen period (1 month - 12 months) and using various thresholds of landings per unit effort. Using the average data for all vessels operating in a certain square a gradient of probability of high cod abundance can be obtained for a given time period. These amber areas will be set for a management period, and while vessels can operate in them, they will be penalised for doing so by a reduction in number of days-at-sea.

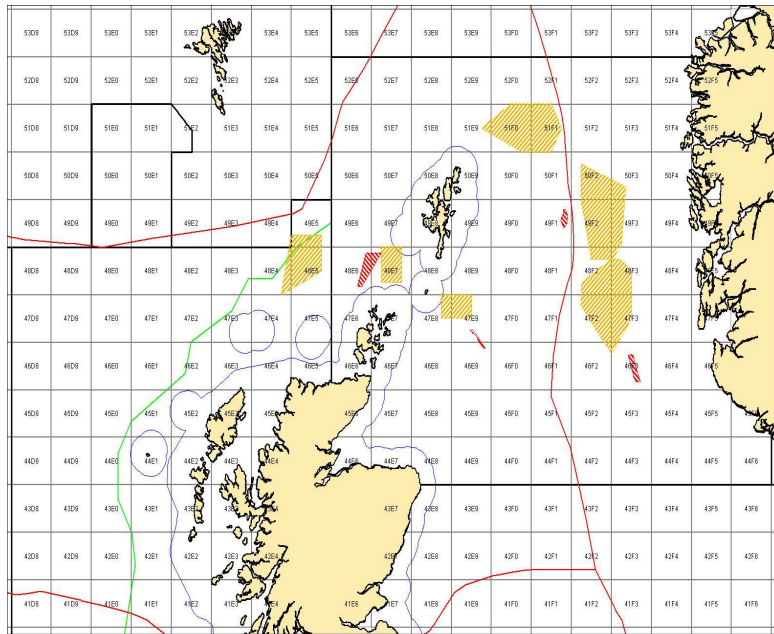


Figure 2 – Amber areas in place on the 18th March 2008.

Finally, Scotland has determined there should be a number of permanent or seasonal closed areas. These include the permanent "windsock", which has been in place for a number of years and the "long hole", which was closed on the 1st December until 31st March, when it will be sampled and a decision taken as to whether or not it should be reopened. This area is well known as an important place for spawning cod. Further seasonal closures are Pappa Bank (from 15 January 2009 until 15 March), the Coral Edge (from 15 January 2009 until 28 February) and the Stanhope Ground (from 21 February to 30 April). In the latter three cases, and unlike the Long Hole, these areas will be automatically re-opened.

At present compliance to these areas is voluntary, but the CC Steering Group have already raised the issue of sanctions for non-compliance, and unanimously agreed that sanctions should be in place and tough to ensure no single "pirate" should undermine the good work of everyone else.

⇒ Gear regulations

Participants in the CCS have to comply with a "one net rule". This ensures only the regulated gear is used and facilitates enforcement.

Both the cod recovery plan and the wider EU regulations stipulate that selective gear must be used by the fleets targeting whitefish in the cod recovery zone. *Nephrops* vessels must insert a square meshed panel in their nets, while whitefish vessels must adopt cod avoidance gear when 90% of the quota has been caught.

There should be significant incentive to adopt selective gear, as given the high grading ban (see below) and the difficulty in marketing smaller cod, there is a good reason not to catch these fish. Some selective gear types are tried and tested such as the square-mesh panel In the *Nephrops* trawls, while in other fisheries there is still scope for initiatives and development. The Scottish government is encouraging and supporting a number of trials initiated by industry including cod selective designs such as the Orkney and Shetland trawls.

⇒ High grading ban

High grading is the retention onboard of only the larger, fresher, better fish, and discarding of less valuable but still marketable catch. A high grading ban is now in place in the North Sea as a result of a November 2008 agreement between the EU and Norway, subsequently translated into EU legislation at the December 2008 Fisheries Council. However, it is only an offence when the vessel has sufficient quota to cover the catch. This is not easily enforceable at sea but can be detected by the size distribution of landings, and vessels systematically landing consistent catches of large fish will be required to carry an observer.

⇒ Observers

Both the Fisheries Research Services (FRS) and the government deploy a number of observers on board fishing vessels. FRS observers record all catches of the white fish and *Nephrops* fleets, this information is used primarily by national scientists and the International Council for the Exploration of the Sea (ICES) for stock assessments. A recent and new observer initiative run by the government and the Scottish Fishermen's Federation (SFF) focuses mainly on cod catches, and has also done considerable work in trials of new gears.

Initial research has been carried out into testing Closed Circuit TV (CCTV) observation systems on board fishing vessels. This system of observation is already being tested and used in Denmark and has shown to be effective. In Scotland trials will start shortly on whitefish and *Nephrops* vessels, selected to ensure wide coverage of fishing patterns and areas.

EFFORT MANAGEMENT

Despite all these cod avoidance measures, it is unlikely they will contribute fully to the 25% decrease in cod mortality required by the cod recovery plan. Therefore, fishing effort must also be reduced to comply with EU regulations and the objective of reducing fishing mortality. Thus, the number of days fishing vessels are operating at sea will have to be cut. How the new lower level of effort will be distributed between vessels is still under consultation. Whatever the outcome of the consultation, effort is likely to fall compared with 2008.

PROGRESS AND REMAINING CHALLENGES

The Conservation Credits Scheme is ambitious and innovative and the first of its kind in European waters. The issues being addressed in the CCS are not straightforward, as reducing fishing mortality and therefore effort are always going to cause some members of the industry to lose out, but the open dialogue at the monthly meetings means that this loss is considered and carefully worked out by all parties.

CCS has brought the reality of conservation to the understanding of all players in the fishing sector, which can be seen by the level of compliance when the scheme was voluntary. In 2008 CCS was a ground-breaking success with 94% participation, 15 real time closures and widespread adoption of more selective fishing gear. The scheme in 2009 is compulsory so all eligible vessels in the Scottish fleet must comply with these measures.

WWF PERSPECTIVE

WWF is a key member of the CCS Steering Group, attending the monthly meetings. While the Steering Group is an industry/government dominated forum, the presence of WWF is important to ensure that the scheme is implemented in a manner which we believe truly supports the delivery of conservation objectives. Our presence is also a useful reminder to members of these conservation objectives.

Being part of the CCS Steering Group gives us the perfect opportunity to monitor how well the cod recovery plan is being enforced, and be in the right place to measure whether the actual commitments made will be sufficient to deliver the necessary reduction in cod mortality.

One of the key areas of concern for WWF in recent years has been the state of North Atlantic cod stocks both sides of the Atlantic, and the EU-Norway agreement/revised EU cod recovery plan delivers on the key priority areas of this work in European waters, in particular the cod avoidance measures and high grading ban which should reduce discarding and cod mortality.

Finally, the Steering Group meetings are an excellent opportunity to liaise monthly with many of the key players of the Scottish fishing sector, and have enabled us to build up solid working relationships and a high level of trust. This open relationship enables WWF and the government/industry to openly discuss and exchange ideas and work together to achieve more sustainable fisheries, in accordance with the EU-Norway agreement and EU regulations of December 2008.

Scotland is clearly at the forefront of implementing this agreement and should be used as a case study to illustrate how this can be done in other EU member states which are being slow to put in place solutions.

GOVERNMENT PERSPECTIVE

The development of the Conservation Credits Scheme has only been possible through unprecedented engagement with the fishing industry to develop a scheme which addresses reducing cod mortality through innovative spatial and selective measures rather than a blunt cut in effort. The arrangements are not without significant challenges but the approach pioneered in Scotland, now rightly gaining recognition across Europe, works towards delivering sustainable fisheries whilst supporting rural communities and economies that rely on them. Significant levels of reductions in cod mortality are now being actively delivered in Scotland through the observation of Real Time Closures by Scottish fishermen. It is encouraging that other Member States are following the Scottish lead and developing similar schemes based on the principles of CCS.

INDUSTRY PERSPECTIVE

Regionalising responsibility is a facet of fisheries management that the Scottish catching sector promoted for many years. Creating operational structures which are more fitting to the fleets and the species and areas which they fish and work has to be the only way ahead. We have seen a tremendous, positive social response by the catchers in these early days; compliance levels of what was a voluntary Real Time Closure scheme in 2008 is an indication of how the sector has responded.

Managing fisheries by Committee was always going to be a challenge however, it is less challenging than it possibly could be were the steering group not pragmatic and realistic in their approach. The group is a blend of enthusiasm for change, an appetite for a challenge and a combined vision of where the fisheries should be in 5-10 years time. Conservation Credits has been a success story in every sense of the word, its continued success will be determined by the results it produces. When fishermen phone the group to have a cod abundance protected and design and try their own cod selective gears, as they have done recently, we know we are onto a winner.

ACKNOWLEDGMENTS

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FOR FURTHER INFORMATION:

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