

2011 Fully Documented Fishery Trial - Economic Evaluation

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Executive Summary

This report builds on a similar exercise conducted for the 2010 trials and is broken down into two succinct sections:

1. An analysis of the impact of the 2011 Fully Documented Fishery Trial (FDF) on the activity and financial performance of participating vessels, and
2. Analysis of the results of surveys to the fishing sector enquiring about experiences and perceptions of the FDF trial

Key findings are as follows:

- Participants in the 2011 FDF trial increased their total volume of landings while non-participants experienced a decline. Combined with increased prices, FDF vessels achieved a 30 per cent increase in the average value of landings per vessel.
- Landings of cod almost doubled in value for the FDF trial vessels driven by a large increase in the volume of cod landed and increased prices.
- The value of landings per day at sea achieved by vessels in the FDF trial was £7,160 which represents a premium of £490 per day at sea at least in part through participation in the trial.
- The operating profits for each vessel in the FDF trial was estimated on average to be £150,278. This suggests they earned a premium of up to £13,593 through participation in the trial although other factors may also have contributed. Uncertainties in the analysis mean that this figure should be treated as indicative rather than a precise measure of the benefits.
- The surveys found a diversity of views, with participants generally positive about the trial and non-participants decisively negative.
- Participants valued extra quota and exemption from effort restrictions in equal measure and broadly agreed that the trial had contributed positively towards profitability.
- Concerns were raised on all sides about the divisive nature of the trial and the upward pressure that it had placed on cod quota lease prices, although on the latter point other evidence suggests that the trial was not the only factor pushing leasing prices higher.

Analysis of Financial Performance

Introduction

Marine Scotland has evaluated the impact of the 2011 Fully Documented Fishery Trial (FDF) on the activity and performance of participating vessels. Official landings data is used to estimate how participation in the trial may have affected key indicators such as landings, effort and profits compared to a control group of eligible non-participants.

Approach

This analysis compares the performance of the 23 FDF trial participating vessels with a representative control group that consists of 89 other vessels which were eligible for the FDF trial but did not participate. The performance of these vessels were compared between the FDF trial period (01 Feb 2011 – 31 Jan 2012) and a corresponding period prior to the FDF trial (01 Feb 2009 – 31 Jan 2010)¹. The change in performance of the FDF trial vessels between these two periods is then compared with the change in performance of the control group vessels between the same periods.

The purpose of the analysis is to try to isolate the effects of the FDF trial. The assumption underlying the approach taken is that, on average, the vessels in the trial group are more or less equivalent to the vessels in the control group, that they have similar capabilities and face similar costs. To the extent that this is true, then it is possible to attribute the difference in performance between the two groups to the FDF trial. If there are other systematic differences between the two groups which could also affect performance, for example if one of the groups invested significantly more in cost reducing technologies during the trial period than the other group, then this will reduce the robustness of the results leading to either over or under estimates of the trial's impact.

The landings volume, price and value, and days at sea data used in this analysis were extracted from the official landings data, while operating profits was derived using this landings data and additional data on operational costs taken from the 2009 Economic Survey of the UK Fishing Fleet (Seafish, 2011)². Calculations were performed for each fleet segment and aggregated for participating and non-participating vessels.

Results

Landings and Revenue

The FDF trial vessels experienced, on average, a six percent increase in the volume of landings in 2011 compared to 2009, going from 879 tonnes to 932 tonnes. In contrast, the non-participating vessels saw their landing volumes slump by 14 per cent to an average of 371 tonnes per vessel. Overall, the already significant gap in volumes landed between the two groups widened by 25 per cent³. It is likely that the

¹ The 2009 quota year was used as the control period rather than the 2010 quota year as the Catch Quota scheme trial was undertaken in the 2010 quota year.

² http://www.seafish.org/media/Publications/2009_Fleet_Econ_Report_Final_6May11.pdf

³ This pre-existing difference in operational scale between participating and non-participating vessels raises the possibility that there are substantive differences between the two groups above and beyond

FDF trial, which provides a cod quota premium of 30 per cent and exemption from effort restrictions, is a key factor explaining this difference.

Both groups of vessels enjoyed price increases, averaged over all species, of nearly 25 per cent and as a result even the non-participating vessels experienced an increase in revenues in spite of declining volumes. The non-participating vessels experienced a seven percent increase in the average value of landings between the two periods. The FDF trial vessels on the other hand, combining higher volumes and higher prices, saw revenues jump by 30 per cent. These results echo the findings of the 2010 FDF evaluation⁴.

Figure 1: Change in the average volume of total landings per vessel

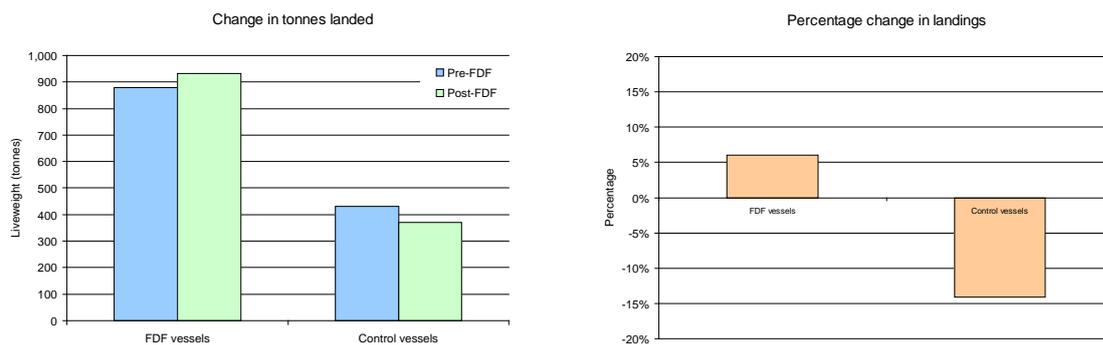
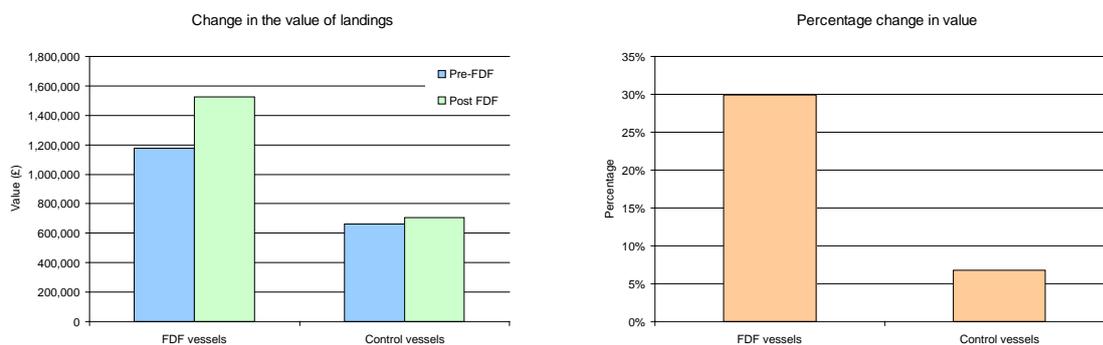


Figure 2: Change in the average value of total landings per vessel



Landings of Cod

Vessels participating in the FDF trial increased the volume of cod landed by an average of 69 per cent per vessel between 2009 and 2011, going from 110 tonnes to 186 tonnes. In contrast, the non-participating vessels saw little change in the volume of cod landed, with an average of 38 tonnes landed per vessel in 2011. Overall, the difference in the volumes of cod landed between the two vessel groups widened by 109 per cent following implementation of the FDF trial. This result is not unexpected. FDF participants had extra allocation of cod quota and, in some cases, had an incentive to acquire more cod quota to enable them to take advantage of the exemption from Days-at-Sea restrictions to fish out their quota allocations for other species.

their participation in the trial and which may also affect the results. This suggests that a cautionary approach is taken in interpreting the results and in attributing impacts to the FDF trial alone.

⁴ <http://www.scotland.gov.uk/Topics/marine/Sea-Fisheries/17681/CQMS082011>

The size composition of cod landings changed dramatically between the two groups over the period of analysis (figure 5, below). Whereas in 2009 the two groups had landed roughly the same proportion of small cod, during the 2011 trial the FDF group saw a 94 per cent increase in the proportion of small cod compared with a 40 per cent increase observed for non-participating vessels. Given that the FDF vessels have a strong incentive to avoid small cod, the extent of this differential is all the more striking and suggests that the difference between the two groups is due to the absence of high grading by FDF participants.

The size composition of cod landings fed through into average prices with FDF participants, with their greater proportion of less valuable small cod, enjoying a smaller increase in the average cod price (18 per cent) than non-participating vessels (26 per cent).

Figure 4. Change in the average volume of cod landings per vessel

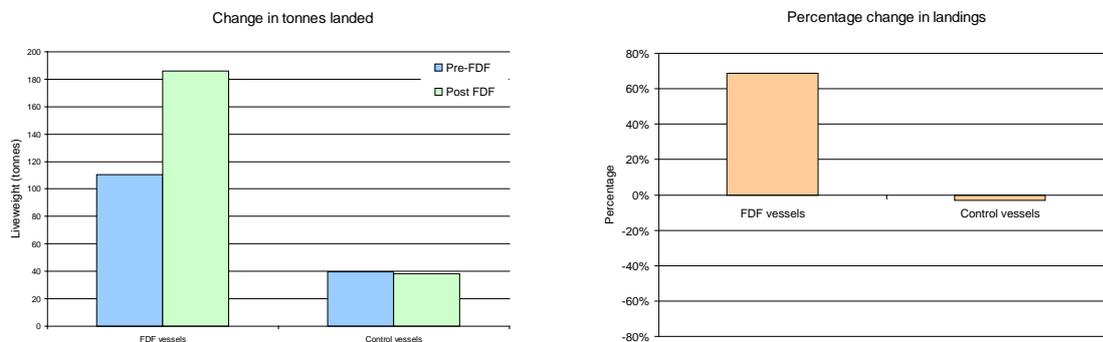
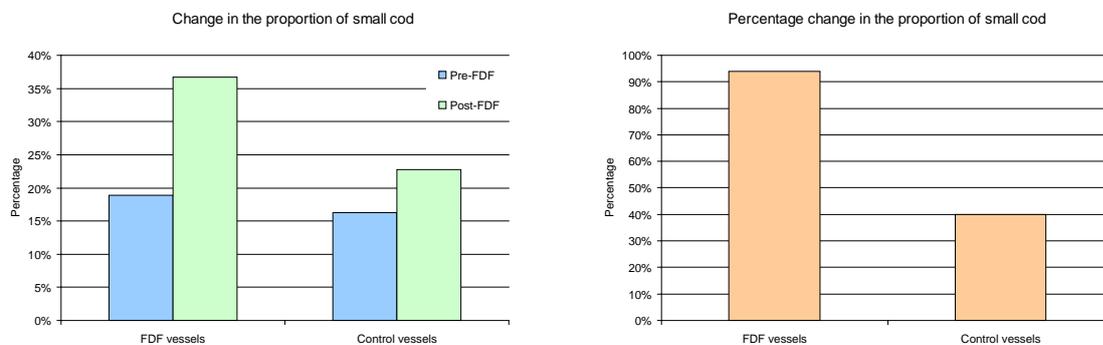


Figure 5. Change in the proportion of small cod landed per vessel



Days at Sea and Value of Landings per Day at Sea

The FDF trial vessels spent on average 207 days at sea in 2011, a five per cent decrease from the 218 days at sea in 2009. The non-participating vessels, which unlike the FDF group were subject to effort restrictions, saw a larger 17 per cent decrease in their average days at sea from 195 days to 160 days.

Change in value of landings for a given amount of effort provides an indicator of efficiency. The FDF trial vessels achieved a 37 per cent increase in the value of landings per day compared to 28 per cent for non-participating vessels. This suggests in effect that participating vessels earned a premium of £490 per day at

sea at least partly through participation in the FDF trial, for example as a result of keeping and landing all cod that is caught that would have previously been discarded (although, as discussed above, other factors may also have contributed to this performance differential). The evaluation of the 2010 trial estimated the per-day FDF premium in 2010 as £598.

Figure 7. Change in the average number of days at sea per vessel

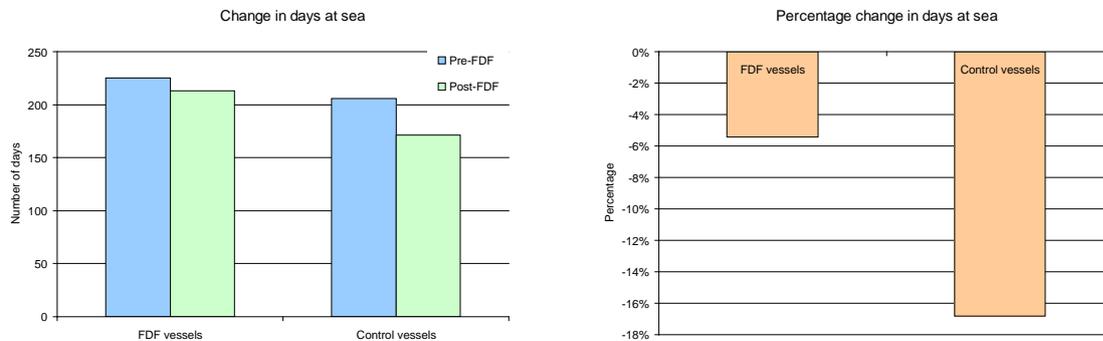
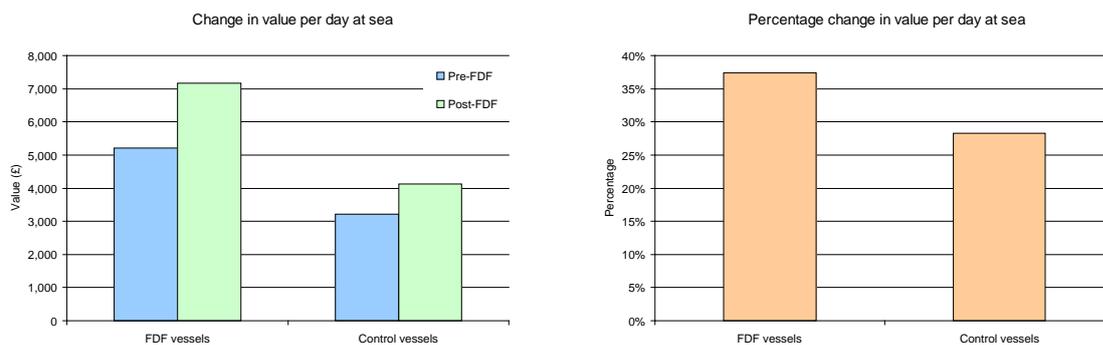


Figure 8. Change in the average value per day at sea



Operating Profits

Profits provide a more rounded view of vessel performance than simple revenue and landings measures which do not take account of costs. The average operating profit⁵ per FDF trial vessel was an estimated £115,835 in 2009, which compares to an estimate of £83,445 for non-participating vessels. Both vessel groups experienced an increase in profits in 2011 compared to 2009. The participating vessels saw an estimated 30 per cent increase to £150,278, while non-participating vessel saw a smaller 18 per cent increase in profits to £98,749 per vessel.

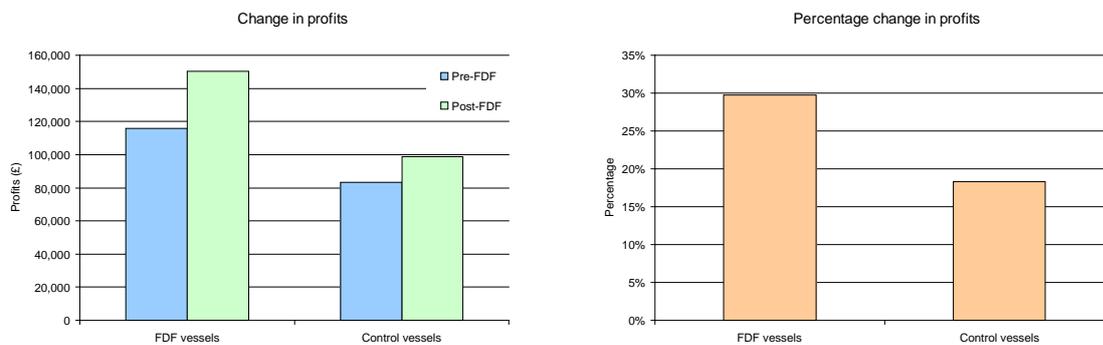
Overall, the gap in profits between the two vessel groups widened between 2009 and 2011 by an estimated 59 per cent. Had the FDF trial vessels experienced the same 18 per cent increase in profits as the control vessels, they would have achieved an average profit of £136,685 during the FDF trial period. This suggests that they earned a premium of £13,593 at least in part through participation in the

⁵ Operating profit is comprised of revenues less operating costs. Operating costs comprise the variable and fixed costs directly associated with fishing activity; crew share, fuel, gear and maintenance costs etc. Operating costs do not include financing costs (eg loan repayments) or asset depreciation.

trial although uncertainties in the analysis mean that this figure should be treated as indicative rather than a precise measure of the benefits.

In particular, the profit results are based on 2009 estimates of costs (except fuel costs which are based on 2011 fuel prices), averaged at the level of individual fishing segments⁶. If the average costs have changed significantly between 2009 and 2011 or if vessels in either of the groups analysed (FDF and non-FDF) are very different from the segment averages then this will affect the reliability of the profit calculations. A particular consideration is the impact of quota lease prices. Anecdotal evidence suggests that quota lease prices have risen since 2009, especially for cod. If FDF participants are above-average leasers of cod quota (and the evidence on this is not completely clear cut – see note on the Skippers’ survey elsewhere in this report) then the method used here may underestimate that element of their costs. Similarly, if non-participants are spending less than average on leasing in cod quota (or increasing revenue by leasing out quota) then their profits may be underestimated and the overall impact of the FDF trial on profit differentials would be overstated.

Figure 9. Change in the average profits per vessel



Conclusion

Although the precise level of benefits is difficult to ascertain, the results of the financial analysis suggest that the participants on the 2011 FDF trial did enjoy a financial advantage as a result of taking part in the trial. The analysis shows other sharp differentials between the FDF and non-FDF groups, for example in the change in quantity landed and in the size composition of cod landings, which indicate that the trial has had wide-ranging impacts on performance and behaviour.

⁶ Vessels are categorised into segments according to, for example, activity, location, gear type, vessel power

Analysis of Stakeholder Surveys

To augment the financial analysis, Marine Scotland commissioned Seafish to conduct three short surveys among various parts of the fishing sector to ask about experiences and perceptions of the FDF trial. Telephone interviews were conducted with:

1. Participants on the 2011 FDF trial: 19 skipper/owner interviews (representing 20 vessels) out of 25 participants
2. Non-participating skippers (seven interviews)
3. Producer Organisations and quota agents (POs and vessel agents survey – five interviews)

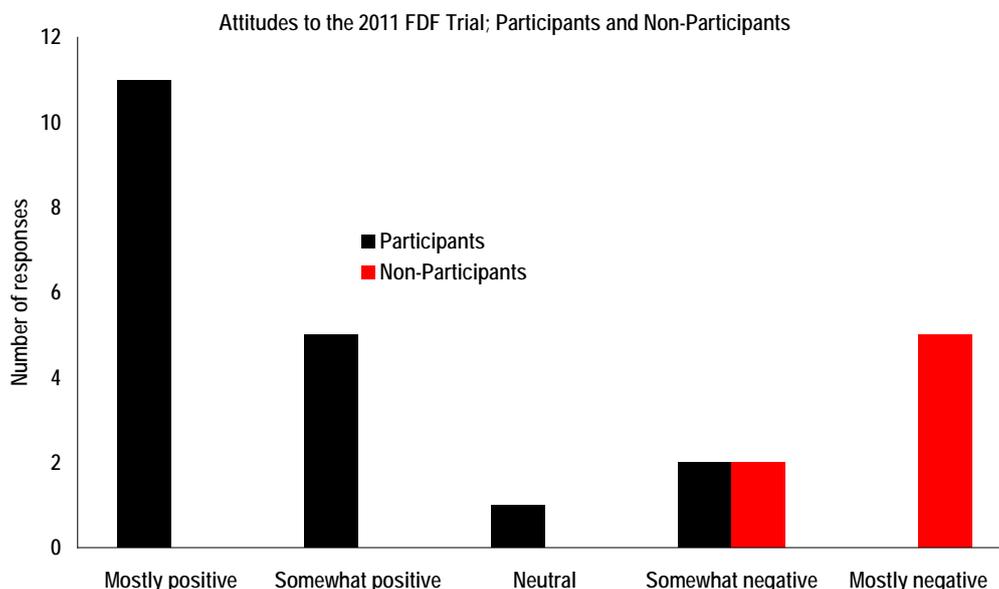
Results of these can be found in Annex A. The surveys build on similar interviews conducted early on during the 2011 trial, with the exception of the PO and agents survey which was conducted for the first time this year. The small numbers involved in the non-participant and POs and agents surveys means that these results cannot be assumed representative of the respective populations and should be treated as illustrative only.

General attitudes

Overall, the great majority of participating skippers who responded to the survey expressed positive views of the FDF trial with some commenting, for example, that the scheme had benefited both their business and fish stocks. Concerns were raised by some participants, however, about the divisive nature of the trial. In contrast to the largely positive views of participating skippers, the overwhelming views of non-participants were negative with respondents labelling the trial divisive and unfair. Taken together, these findings echo responses in last year's survey but positions were even more polarised this time around.

Respondents expressed some disappointment that scientific benefits of the trial were not being realised as quickly as they had hoped and this was highlighted as an area for improvement.

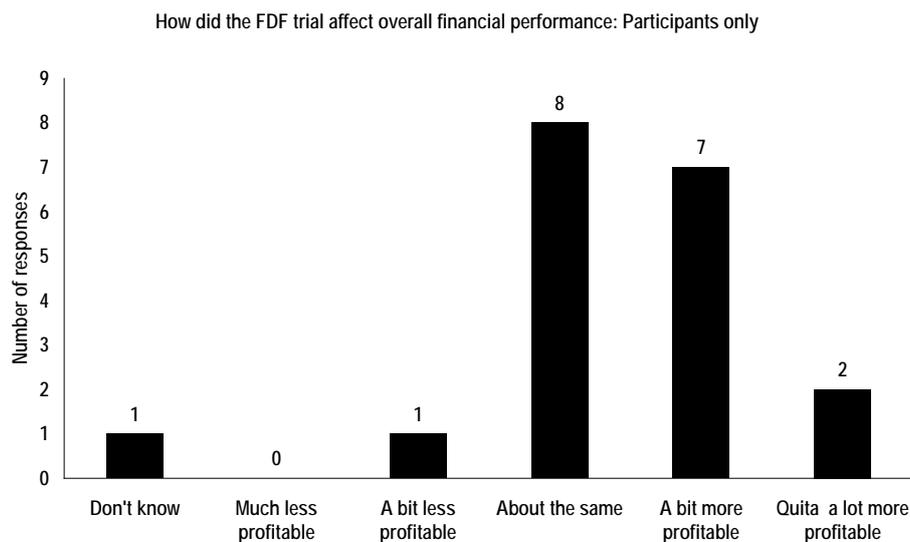
Figure 10: Attitudes to the 2011 FDF Trial – Participants and non-participants



Benefits and impact on performance

Around half of participating skippers felt that being on the trial had resulted in improved profitability and a similar number answered that it had not had a significant impact on their financial performance. Respondents were also split half and half when asked whether the main benefit to them came from either the extra cod quota available or from the exemption from Days-at-Sea restrictions. This is in contrast to last year's survey when a clear majority had answered that additional cod was the key benefit, possibly reflecting changes to the Days-at-Sea restrictions.

Figure 11: How did the FDF trial affect financial performance – Participants only



Extending the trial

When asked whether the trial ought to be extended to cover other species, scheme participants who responded were of mixed views. Most were ambivalent, with skippers noting practical difficulties and the need for extra quota to be available for an extension to be workable. Only around a quarter of respondents thought that the trial should definitely be extended to other species compared to last year when more than half had said so.

Changes in fishing patterns

The purpose of the FDF trial is to incentivise cod avoidance measures and almost all participant skippers responding said that they had taken steps to do things differently. Of the 19 respondents, 16 said that they had changed where they fished in order to avoid cod-abundant areas. 15 said that they had changed when they fished with respondents having changed both when in the year they focused their activity and at what times of the day they fished. Just over half, compared to three quarters last year, said that they had changed the type of gear they used or how they used it. This lower number may reflect the fact that some skippers had already changed to more selective gears prior to joining the trial. Of those who had altered their gear, a number noted their use of an Orkney Trawl.

Impact on catch

When asked about the impact of the trial on catch quantity, most participants felt that it had not made a big difference although a number commented that they were now catching more bigger fish and fewer small fish as a result of selectivity measures. When asked about discards of non-cod species, around two thirds of skippers who responded said that there had been no effect and a third said that discards had decreased.

Impact on key costs: fuel and quota lease prices

Just over half of participating skippers who were surveyed felt that their total spend on fuel had changed as a result of being on the trial. Some had experienced greater fuel use as a result of changes to their fishing patterns whereas others had used less, for example because they were keeping more fish and hence needed to spend less time at sea.

Anecdotal evidence collected over the period of the trial had suggested that the impact of the trial on cod quota leasing costs was a major concern for skippers and so the surveys were used to explore this issue in more detail.

Of the participant respondents most (14 of 19) believed that the trial did place upward pressure on prices although some noted that other factors were also at play. Among non-participants and POs and vessel agents the results were unequivocal with all respondents saying that the trial had contributed to increases in quota lease prices.

Perceptions then are very clear- the FDF trial is seen as a major factor in driving quota lease prices upwards during 2011. But other evidence from the participants survey is more ambiguous. Among skippers on the scheme, survey respondents were split between those who had needed to lease in more quota because they were on the trial and those who had actually leased less as a result of participation. In the former category, increasing leasing, there were only seven out of 19 (around 35 per cent) and in the latter group, reducing leasing, five out of 19 (around 25 per cent). Taken together this suggests that overall the direct effect on demand for quota is likely to have been positive but possibly not as substantial as some people have perceived⁷. Indirect effects, as a result of expectations around demand, may also have played a role and are discussed below.

Respondents to all three surveys felt that quota availability declined through the first half of the year becoming particularly tight during the summer and then increasing in availability at the very end of the period. This suggests that some fishing firms may have built up their quota holdings on a precautionary basis, fearing running out later in the year, and then tried to offload excess holding toward the year end as a result of which prices fell significantly. It is plausible that, in this way, expectations about the impact of the trial on lease prices became self-fulfilling as people sought to pre-empt anticipated shortages by amassing quota, either for their own use or in

⁷ Participating skippers were asked how much cod quota they had leased in during 2011. 13 responded to the question giving a total figure of 1,457 tonnes. Assuming this was all North Sea cod quota, it represents around 13 per cent of the total. This is a substantial proportion, but without evidence on the baseline figure (ie how much they would have leased in the absence of the FDF trial) or whether they used the quota or resold it, it is difficult to interpret.

speculation of future price rises. The result potentially was the creation of a short-lived price bubble that was only partly related to real underlying changes in demand arising from the FDF trial.

All skippers surveyed were asked the highest and lowest prices that they had paid during the year to lease cod quota. The results are shown in the table below and illustrate, as expected, that trial participants were prepared to pay higher prices per tonne of cod quota than non-participants.

Price of leasing in cod quota: Participants and non-participants

		Average	Range
Participants	Highest price paid	£1,790	£1,300 - £2,200
	Lowest price paid	£920	£500 - £1,350
Non-participants	Highest price paid	£1,440	£1,000 – £2,000
	Lowest price paid	£970	£700 - £1,400

Overall, the surveys provide some interesting material around the impact of the FDF Trial on cod quota lease prices. That the pressure on prices is upward seems almost certainly true, but the extent of the effect is less clear and further work would be needed to fill out the evidence base before very firm conclusions could be drawn.

Catch quota trials
Skippers survey results
a report by Seafish to Marine Scotland

Prepared by Hazel Curtis and Gus Caslake

5 March 2012

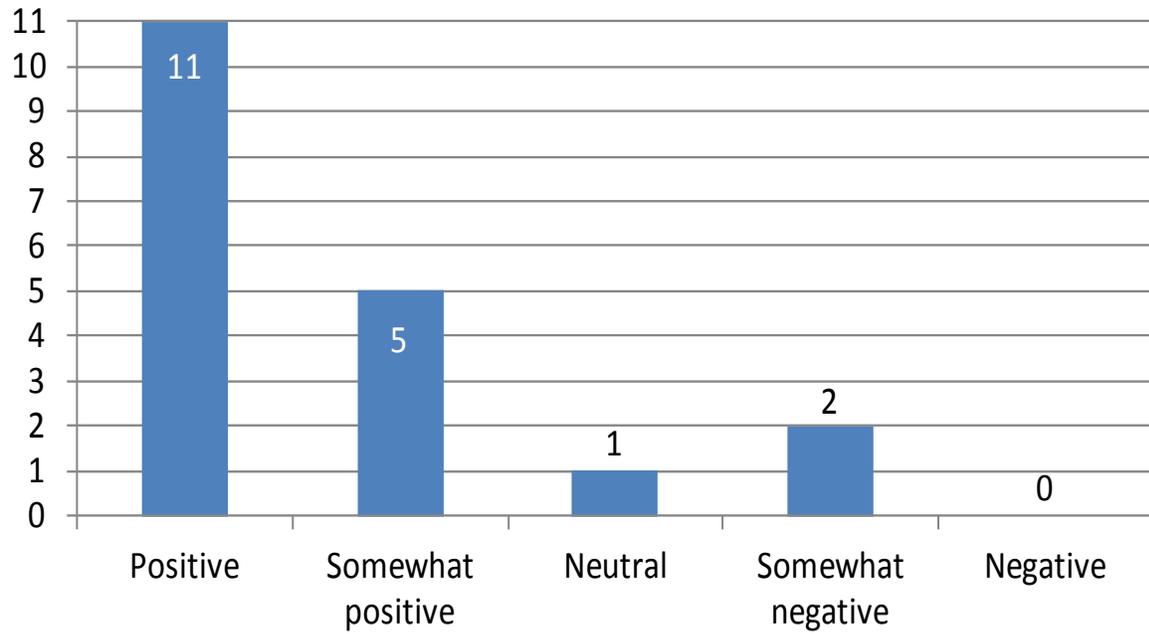
For Marine Scotland

Report by Seafish to Marine Scotland

- This report is in fulfilment of a contract between Seafish and Marine Scotland, ref. PUBRES/2358, dated January 2012.
- Interviews of 5 POs and agents were carried out by Hazel Curtis, using agreed questionnaires
- 7 interviews with non-participants were completed by Gus Caslake and Michaela Archer
- 19 interviews with trial participants, covering 20 vessels, were completed
- “quoted” answers are in some cases paraphrases or composites of common answers
- Gus Caslake and Hazel Curtis analysed the survey answers. These staff are happy to discuss findings with Marine Scotland.
- If graphs, charts or tables are copied into presentations or other publications, they should be labelled as Source: Seafish and cited as Curtis, H. and Caslake, R. 2012. Catch Quota Trials 2011 Survey Results – a report by Seafish to Marine Scotland. Seafish.

Q.2. Tell me your thoughts about the trial in general?

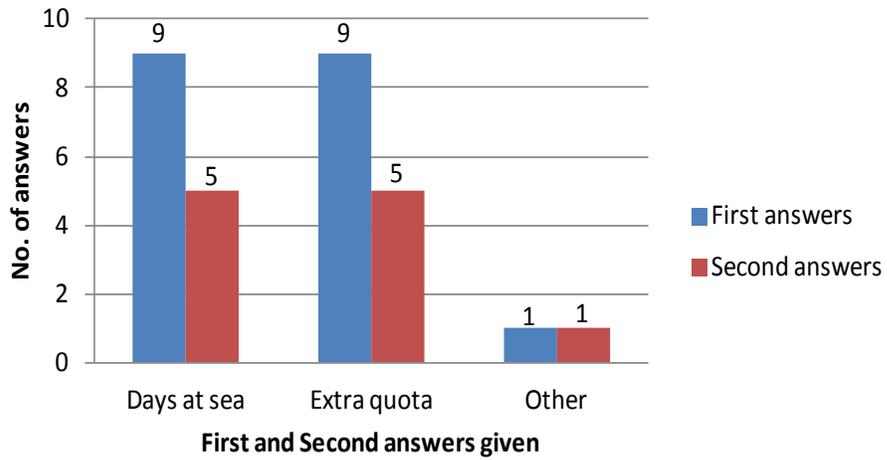
Q.2 Tell me your thoughts about the trial in general? Categorised answers



Q.2. Tell me your thoughts about the trial in general? Mostly positive comments – some highlights

Positive	Neutral	Negative
Scheme worked OK and helped as were clear of the days restrictions	if the trial was to prove that the cod is there it has been successful if the results are taken into consideration	it has caused a divide in the fleet with vessels on the scheme and those not on the scheme
quite like the mentality change, used to have to consider whether to dump, don't have to do that now	Need to enhance the science from the work being carried out to assist in stock assessments	We were given xx tonne of cod quota but have to use it to sell smaller, low price cod. It's not all plusses on the scheme.
We've changed our gear to avoid smaller fish and discarded much less. Would be absolutely terrible if scheme is stopped. I want to see more boats on the scheme, haddock & whiting in it too	No problems with it	Effort restrictions brought back in do not work well alongside the cod catch quota scheme, in order to be selective you need to be given time to try different gear and different areas
Still quite enthusiastic about it	I would question if it has really been a big advantage to profit	Trial has got a bit bogged down in the detail and is quite complicated
the trial is probably keeping the boat going to sea in its present mode	Ok did not make a huge difference saved hiring in some cod - no real difference on the days	
It is a good thing for the stocks, makes us fish responsibly		
It's a great scheme, it has changed our fishing pattern		
The trial provided the opportunity to put the business in a forward direction and add to the portfolio of scientific knowledge		
When the fish is in season it is a brilliant idea		

Q.3 What was your main benefit from being in the the catch quota trial during 2011? First answers



First Answers:

“Landing every cod that was caught, not an easy system to work but beneficial”

Second Answers:

“Also financial benefits”

Q.4. Do you think CQ's are a useful management tool? Can you give me some details?

Depends:	1
No:	3
Yes:	15

Depends:

"If just looking at management, then yes, but could be very harsh on business"

No:

"Would rather have it the old way. Even wi' big mesh we still get a lot of undersized and small fish. We wouldnae hae enough room on board the boat to keep all the boxes of small fish. Cod is not so bad, haddocks wouldnae work"

"Quota should be held only by UK vessels that are active"

Yes:

- *"If used properly for management"*
- *"Like the transparency of the scheme with all vessels recording catches"*
- *"Internal quota issues should be sorted as a priority with immediate effect. Quota should be accessible to those vessels wishing to fish it"*
- *"Every boat should have the cameras installed"*
- *"Definitely. It's easy to get stuck in the rut of just dumping for convenience but we can't carry on like that"*
- *"It has to be healthier in the long run. It pisses me off when I see a non-trial boat dumping cod"*
- *"Very good. It makes us act responsible. But frustrating to keep shifting around to avoid cod"*
- *"Very useful. The EU sets aside a percentage of the TAC to be discarded but it is better to give that to the boats if they can prove they are not discarding"*
- *"No discards of cod and you can land what is caught"*
- *"If enough quota is available - the industry are victims of a recovering stock"*
- *"All fish caught should be able to be retained it is very much a waste to throw back good fish dead to the sea. Rather retain everything we catch and limit days!"*

Q.5. Over the whole year, did the trial worked out as you expected?

Maybe:	1
No:	4
Yes:	14

Maybe:

"It's quite early days but would like some more positive feedback from the science end"

No:

"Lack of science being carried out with more interest in Compliance rather than Science"

"Ended up catching more cod than we would have wanted. Tried to avoid it but it's getting scary how hard it is to avoid cod"

Yes:

"Issue with catches of dead cod that had been discarded by other vessels - a dispensation sorted out this issue"

"We were better set up for it in 2011. Possibly worked better than expected"

"The scheme made me think a lot more about my fishing pattern. In the past skippers would listen out for good fishing by vessels, now it is more about personal quota management and getting the best out of the quota from the limited opportunities"

"The cameras make you more aware of what your overall catches are"

"Went as we expected, had trouble making money away from the cod. That can change every year, the amount of cod that's in with other species"

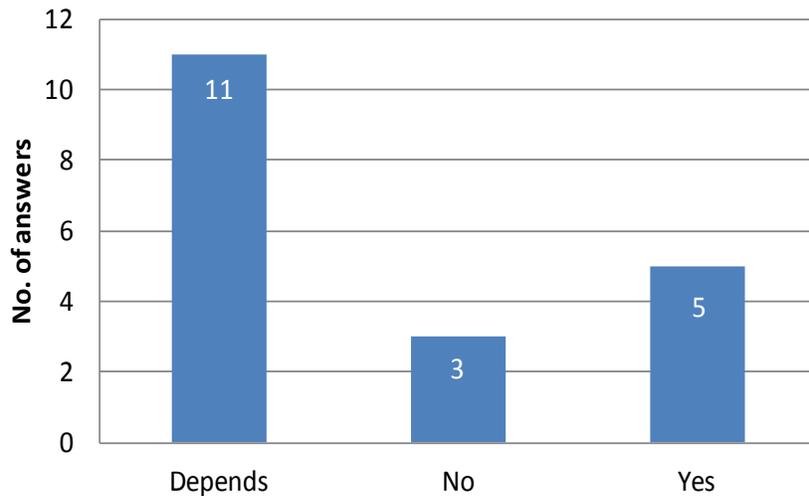
Q.6. How well do you think your communication with your PO on management of your quota works?

Number of answers per answer option, which were read out to participants.

n/a manage my own or owner does it	1.very poorly	2.poorly	3.ok	4.well	5.very well
3	0	0	2	3	11

Q.7. Do you think the trial should be extended to other species?

Q.7. Do you think the trial should be extended to other species?



Depends:

“As long as quota is available”

“Extending the trial to haddock would be difficult due to the amount of small fish with little commercial value caught “

“Depends on the species and how much quota is available “

“If it avoids the dumping of fish it should be promoted”

No:

“Not enough quota available for the likes of Hake and Coley”

“No way could bring it in for other species, the balance of species in the quota does not reflect the balance of species caught”

Yes:

“Trial to more species but would need to offer more extra quota for some of those species “

“Think it would work for other species “

“Would be very hard to get on to all species. For some species the UK % of quota is so small that it would be impossible”

Q7.b. If yes, what other species should be next?

What other species should be trialed?	No. of answers
Haddock	7
Whiting	7
Coley / Saithe	5
NOT Hake	3
NOT Coley	2
All species	2
One at a time	1

Notes:

- Some people gave more than one answer
- It was clear that the condition of there being enough quota underlay all answers.
- Some of the people answering NOT hake or NOT Coley did so because current quota levels would be too low for them to be able to complete enough days at sea if they had to tie up after catching their quota of these species.
- Those who wanted Hake and Coley / Saithe did so because they wanted to end dumping so much and the wish for catch quotas was conditional on the quota for these species being much closer to their catch composition



Q.8. What suggestions would you have for how the trial could be improved or managed better?



“Camera footage should be better utilised to assess ALL catches not just cod and note the amount and abundance of the fish on the grounds”

“The scheme is no use unless it is enforceable. Norwegians will not accept it. They don't want it because they turn a blind eye to their own boats' dumping”

“The trial should be made available to every boat in the fleet and quota should go up accordingly. There is bitterness among non-trial owners”

“Would like to see the science side of the trial coming through. Need to use the evidence from the trial for the stock assessments”

“There was not enough clarity on what the rules of the scheme where explaining to crews was difficult. Even the fisheries officers were unclear. Simple 10 point clear guide needs to be given, in a range of languages to explain in simple terms the rules of the scheme. Explaining to foreign crews difficult!”

“Every vessel should be given the option to enter the scheme“

“Putting more cameras on is good, we need to prove to Norway that the system is robust. I cannae speak highly enough of this scheme”

“Improve the science, introduce other stocks, enhancement of scientific knowledge for stock assessment”

“Allow camera vessels into all RTC areas to collect the full data vessels on the scheme need to be given total access”

Q.9. Did being on the trial in 2011 affect how many days at sea you fished, compared to before you started the trial?

Not sure:	1	Q.9. a. In what way?	
No:	8		
Yes:	10	More days	6
		Fewer days	4

Not Sure:

“Don't know how much days we fished last year. Used more steaming days and less fishing days. Probably similar”

Q.9.a. If yes, in what way?

Fished more days: 6 answers

Fished fewer days: 4 answers

More Days:

“Spending longer at sea trying different things”

Fewer Days:

“Less days than before due to the freedom to target different fisheries at the best times”

**Q.10. Did you alter your fishing pattern as a result of being in the trial?
Can you give me some details about that?**

No:	2	
Yes:	17	<ul style="list-style-type: none"> • Targeted more cod for 6 months of the year • Avoided areas of small cod • Shifting away to areas of less cod • Spending more time at Rockall • Generally try to avoid cod every trip • Operated on a haul by haul basis looking at catches and moving when high concentrations were caught • Tried fishing down to the SE, something we never would have done in the past, looking for areas of less cod and more haddock • Fish dawn and dusk hauls when haddock fishing was clean - no cod • Our pattern of fishing is completely governed by the scheme • Tried to stay clear of cod when the prices were low

Changes to fishing pattern. Did you try to avoid catching cod by....

	Yes	No	Details?
..by fishing in certain areas?	16	3	<ul style="list-style-type: none"> • did the opposite • a lot of areas we just can't go • went to the deeper water • fishing south of 58 ensured clean haddock fishing
..by fishing at certain times?	15	4	<ul style="list-style-type: none"> • tried to target markets when prices were high • certain times of year • avoided targeting cod in the early part of the year due to poor prices • limited fishing during the day when the cod are feeding on the sand eel
..by altering your gear or how you use your gear?	10	9	<ul style="list-style-type: none"> • bigger mesh in the tail of the gear 128mm • used Orkney Trawl in some areas where we can catch clean haddock but also lemon sole if we don't use Orkney Trawl. We have the freedom to choose gear according to what's on different grounds, that's important for our business • Orkney trawl, spaced out our hoppers and lightened the gear to allow small cod to go under the gear. We have seen a reduction in catch of undersize and small cod • use Orkney trawl, have shortened our bags. Longer bags on the net keep more small fish, shorter ones allow more small fish to escape cos the mesh isn't pulled so tight • increased the size of the net in the cod end. Altered the spacing between the hoppers which avoided a lot of cod

Q.14. Did being on the trial affect fuel costs compared to if you weren't on the trial?

Not sure	1	Increased because of extra steaming about, but filling fish room up quicker because not discarding so much, so we're back to port quicker
No:	8	Did not steam away from areas just towed in different direction
Yes:	10	<ul style="list-style-type: none"> • Shorter trips in general • Probably used less fuel due to less days fished • Less days fished less fuel used • Used less fuel. Probably fished a day less every trip because of keeping more fish • Fuel costs increased on the previous year • Increased due to extra steaming at certain times of the year • Increased. Did much more steaming and put fuel use up • Slightly increased due to extra sea time

Q.15. Did you incur any one-off or ongoing extra costs to be in the trial?

No:	9
Yes:	10

Yes:

"Purchase of the Orkney trawl and the larger belly and cod ends"

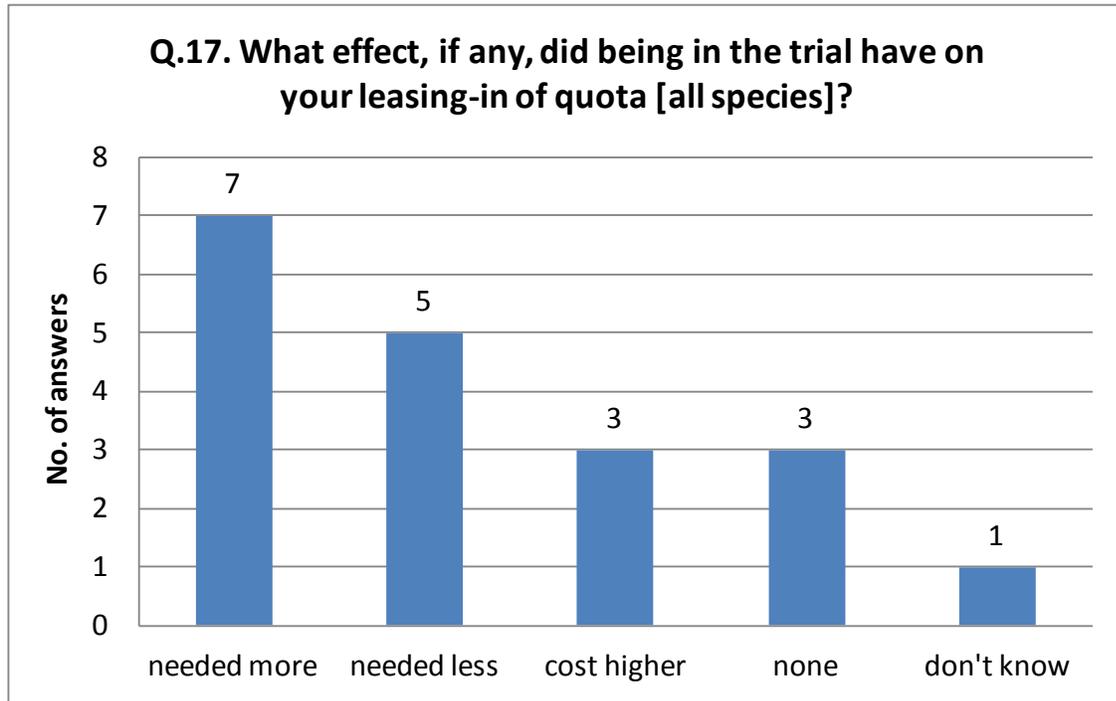
"Cost of leasing quota!"

"One off cost of developing the gear"

Q.16. What impact has the trial had on catches?

.. on catch quantity	13 said: none / not much change 3 said: less – cod and all other species 3 said: more – very good year; caught more cod
.. on discards (volumes, species, accepting cod not discarded)	10 said: no change / pretty similar 5 said: less of all species
.. on size of fish <i>caught</i> , all species	increased average size a wee bit as catching fewer smaller ones
	more bigger fish in general
	loss of some smaller fish due to increased codend size
.. on species composition	down on ground fish (flat fish)
	similar mix of fish caught
	Similar catch amount & breakdown as fishing similar areas

Q.17. What effect, if any, did being in the trial have on your leasing-in of quota (all species)?



“Needed a lot more cod than expected, bit down on haddock”

“Leasing costs less, got xx tonnes cod free”

“Quota actually equals days at sea, which equals landing other species”

“Should open the scheme to all that want onto the scheme. If didn't have extra quota, would have to discard bottom 3 sizes of cod, about 25% of total catch”

Q.18. Do you think the trial caused changes in the general cost of leasing cod or other species?

Maybe:	3
No:	2
Yes:	14

Maybe:

"The prices would probably have gone up regardless due to boats on the scheme not being given the extra quota, so less quota would have been available overall"

No:

"Not directly. Maybe made a small contribution to increase in price, because less quota leads to more demand than supply"

Yes:

"Price of all species went up not just cod"

"Camera boats got the blame for the price increase but I don't think the increase was all due to the trial"

"Larger firms are affecting and controlling the price of quota"

"Put prices up because the boats with cameras had to get cod or couldn't go to sea. Those leasing out cod quota knew that the camera boats had to buy"

Q.19. What was the price range during 2011 of leasing in cod quota? The lowest price and the highest price per tonne that you paid?

	Average*	Range
Highest price paid	£1,790	£1,300 - £2,200
Lowest price paid	£920	£500 - £1,350
* non-weighted average, ie. sum of the prices divided by the number of answers		

Q.20. and Q.21. What was the most common price you paid during 2011 for leasing in cod quota? Roughly how many tonnes did you lease in?

Total tonnes leased by the 13 who gave an estimate:	1,457 tonnes
Total spend on cod leasing by the 13: each person's tonnes leased multiplied by their price paid for most tonnes	£1,960,550
Average price per tonne leased, among 13 who estimated tonnes and prices (estimated total spend / total tonnes leased)	£1,346

What was the price range during 2011 of leasing in cod quota? The lowest price and the highest price per tonne that you paid?

		Average	Range
Trial vessels	Highest price paid	£1,790	£1,300 - £2,200
	Lowest price paid	£920	£500 - £1,350
Non-trial vessels	Highest price paid	£1,440	£1,000 - £2,000
	Lowest price paid	£970	£700 - £1,400

- Owners of trial vessels interviewed reported a much higher value for highest price per tonne to lease cod than owners of non-trial vessels who were interviewed

Q.22. Did you observe any changes in availability and prices of cod quota at different times of the year?

Not sure	2	My office deals with that
No:	1	Mostly try to do deals in first 3 months of the year
Yes:	16	<ul style="list-style-type: none"> • First 6 months harder to lease cod than the last 6 months • Second half of the year quota was a lot harder to source. £2,000 per tonne • No cod available during the summer months, then available towards the end of the year along with falling lease prices • I refused offers at higher prices until October, bought a bit. Price started coming down just before Christmas, too late then • By May it was £1,500 and by August it was £2,000. Price decrease at year end was too late to catch, only for correcting overshoots. • Went up towards end of the year, went down to about £500 the last 2 weeks as people panicked about being left with uncaught quota

Overall business performance during the trial

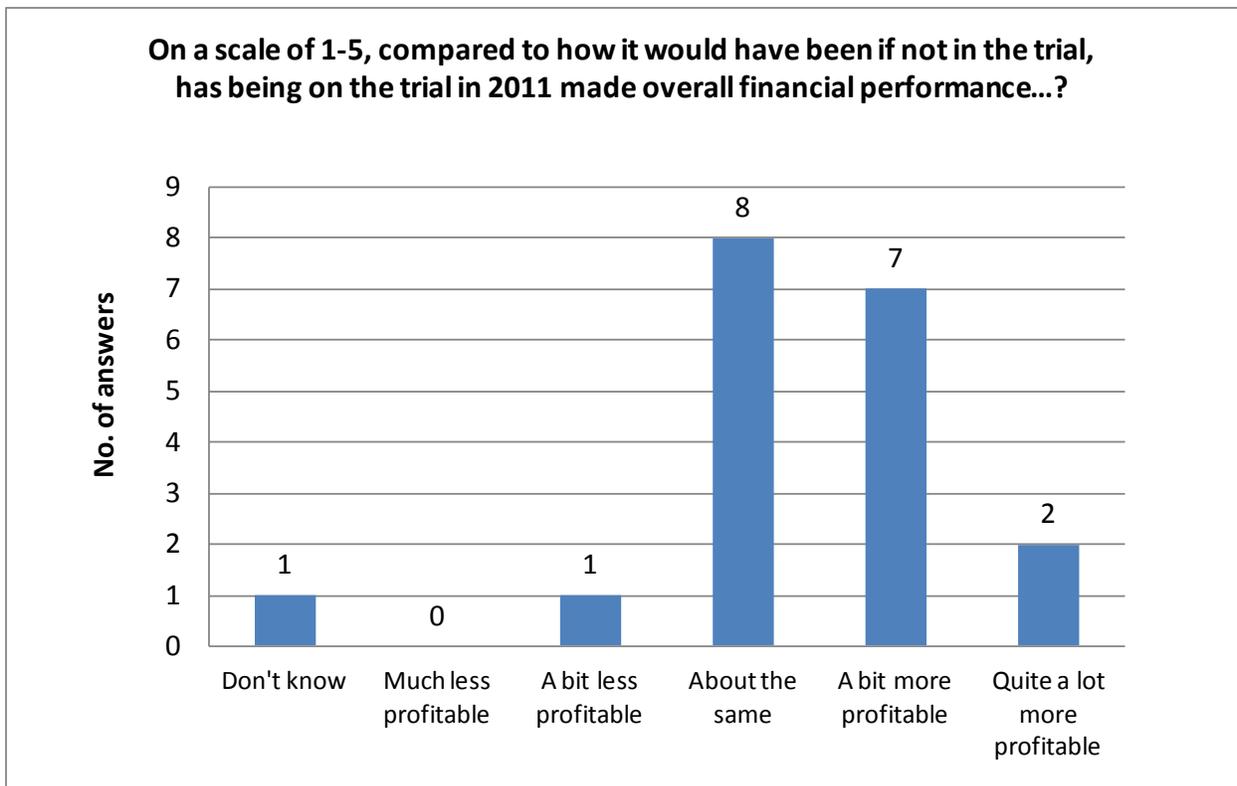
Q.23. Overall, do you believe being in the trial changed how profitable your vessel was compared to how profitable it would have been if not in the trial?

Maybe:	6
No:	4
Yes:	9

Maybe:

"Price of fish was pretty buoyant"

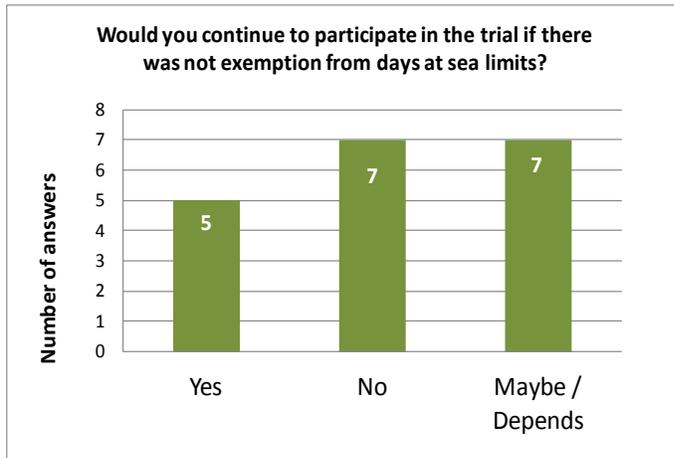
Overall business performance during the trial



Q.24. How important has the exemption from effort restrictions been to your financial performance?



Q.25. Would you continue to participate in the trial if there was not exemption from days at sea limits?



- Several respondents did not know what their entitlement to days at sea would have been in 2012 if they had not been on the CQ trial.
- These people could therefore not answer Q.25.b) roughly how many extra days, over and above what you would otherwise be entitled to, would you need in order to make the trial worthwhile to you?
- Some answered by saying, we need at least x days to survive, with figures ranging from 150 to 300.
- Overall, the effort exemption seems to be very important to those on the trial, with 15 out of 19 answering fairly important or very important to Q.24.

Q.26. Would you continue to participate in a catch quota regime if there were no extra landings quota, but a discards allowance of 25% of quota, and no limit to days at sea?

This question was added to the survey when all but two interviews had been completed.

The two who answered said yes, they would still participate.

Based on the answers of other participants and non-participants, it seems likely that there would be a number of vessel owners who participate in a voluntary option to have free days at sea in exchange for a landings quota plus a 25% discard allowance and tie up once the landings quota + discards allowance had been reached.

There would certainly be some who would not participate voluntarily however.

Main findings from survey

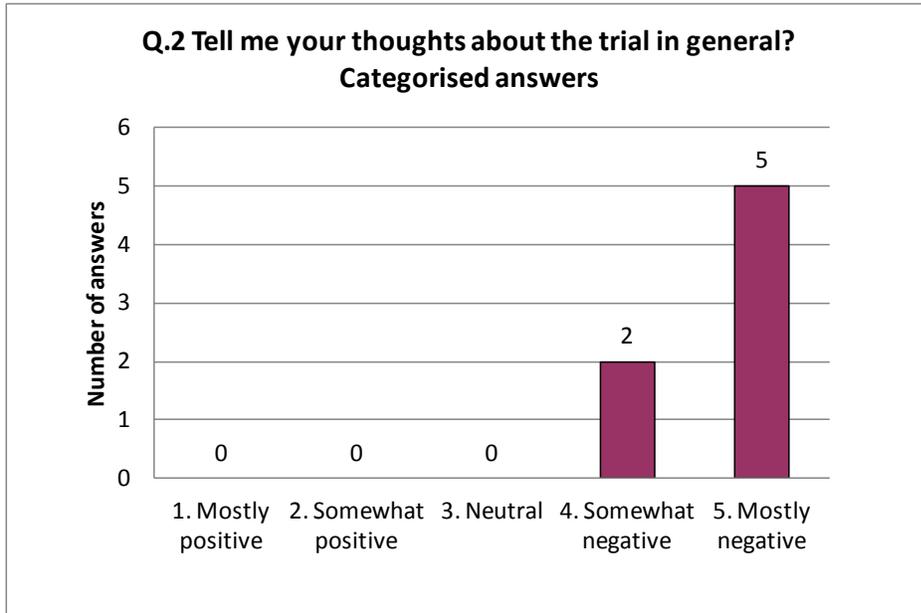
- Still a wide range of experiences among skippers in the trial, emphasising the range of business models among the vessels
- Overall more positive responses than negative about the trial in general
- Strong desire from participants and non-participants to see scientific analysis using trial data
- Range of tactics to reduce cod catch - gear techniques and selecting fishing areas were most popular
- Cost of quota leasing is a big difficulty for some but others used free extra quota to reduce leasing in
- Owners of trial vessels paid higher prices to lease cod than owners of non-trial vessels
- The same number of participants considered free days at sea and free extra quota as their main benefit from being in the trial
- A mixed picture on costs and profits arising from trial participation but most expecting (or at least hoping) that will turn out to have been more profitable as a result of being on the trial.
- A strong desire among participants and non-participants to see the same options for catch quotas open to all in the fleet, on a voluntary basis
- Concern about not being able to operate at all if a catch quota (and therefore discards ban) is implemented for species whose quota is much lower than typical catches, eg. especially haddock, hake and coley / saithe.

Catch quota trial 2011
Non-participants results
a report by Seafish to Marine Scotland

Report by Seafish to Marine Scotland

- This report is in fulfilment of a contract between Seafish and Marine Scotland, ref. PUBRES/2358, dated January 2012.
- Interviews of 5 POs and agents were carried out by Hazel Curtis, using agreed questionnaires
- 7 interviews with non-participants were completed by Gus Caslake and Michaela Archer
- 19 interviews with trial participants, covering 20 vessels, were completed
- “quoted” answers are in some cases paraphrases or composites of common answers
- Gus Caslake and Hazel Curtis analysed the survey answers. These staff are happy to discuss findings with Marine Scotland.
- If graphs, charts or tables are copied into presentations or other publications, they should be cited as Curtis, H. and Caslake, R. 2012. Catch Quota Trials 2011 Survey Results – a report by Seafish to Marine Scotland. Seafish.

Q.2. Tell me your thoughts about the trial in general?



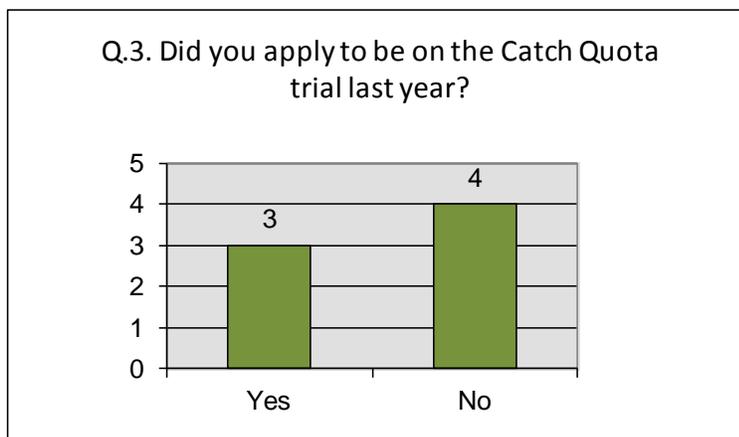
Somewhat negative:

“Unfair for the smaller vessels as they have small amounts of quota and cannot afford the inflated lease costs”

Mostly Negative:

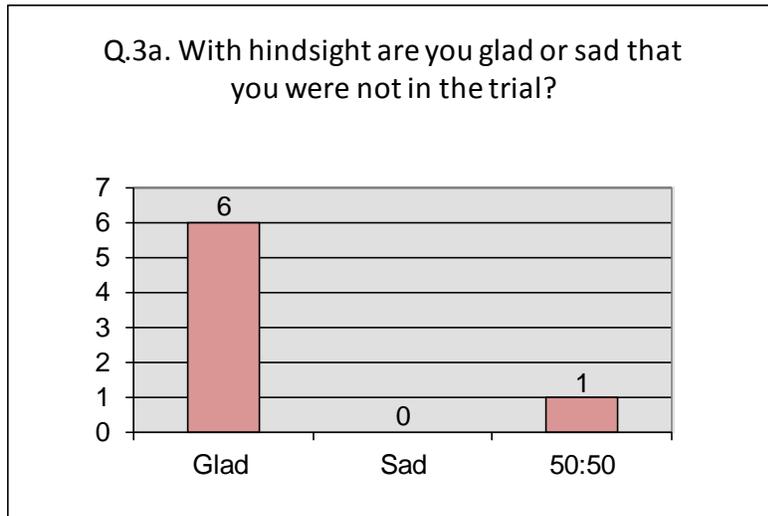
“Very divisive for the industry. Unfair advantage to those on the scheme”

Q.3. Did you apply to be on the Catch Quota trial last year?



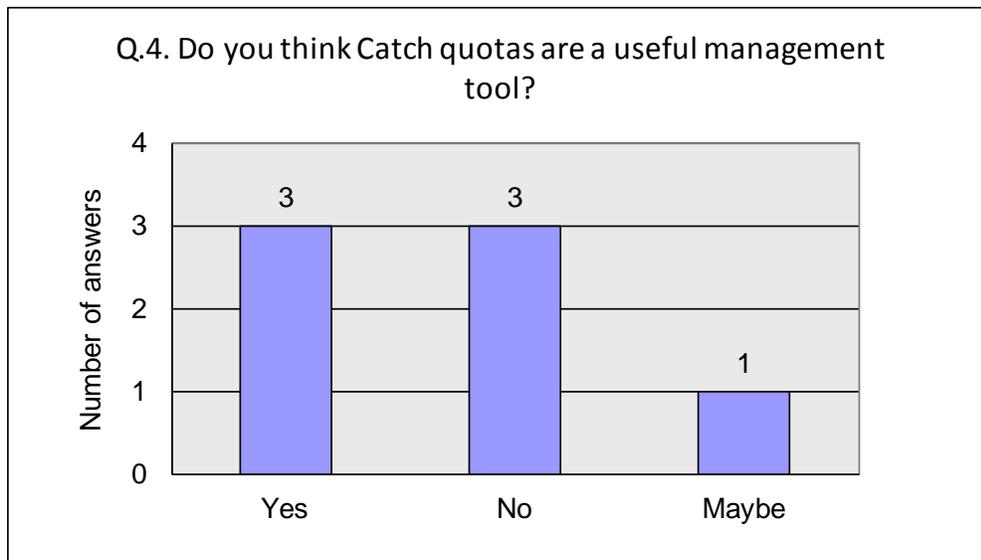
“There was so little quota being offered that the additional quota required to keep the vessel at sea would have outweighed any benefit.”

Q.3a. With hindsight are you glad or sad that you were not in the trial?



“We would have been out of quota long before we were out of days at sea. Thought it was a waste of time”

Q.4 Do you think Catch quotas are a useful management tool?



- *“In favour of reducing the discards as a means of management”*
- *“Needs to be done across the fleet though – level playing field”*
- *“depends on what fish is available”*
- *“if quota is available and science is improved”*
- *“no evidence it works, feel it is a dangerous system to use for fisheries management”*

Q.5. From what you know, did the trial work out as you expected?



Yes:

“No long term solution”

“Thought it was going to be a waste of time before it started and it has proven to be”

Unsure:

“Not followed the outcomes of the trial though would hope results would assist in improving the science”

Q.6. What suggestions would you have for how the trial could be improved or managed better?

- *“A true response of what the fleet really feel about joining the camera scheme would have been to offer everyone within the TR1 gear category the opportunity to put the cameras onboard”.*
- *“Needs to be across the board”.*
- *“Quota needs to match effort and it doesn't in the trial”.*
- *“It would have been better to have not done it at all”.*

Q.7. If the trial continues would you be interested in taking part in future?

Yes:	2
No:	3
Possibly:	1

Yes:

"If the quota available was higher"

"If it could have matched quota and effort (days at sea) then that would have been better"

No:

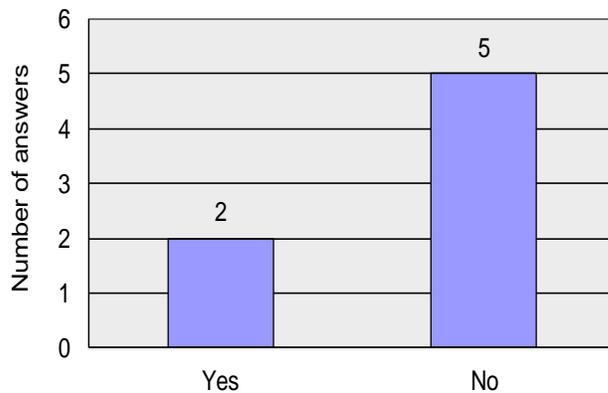
"Waste of time!"

Possibly:

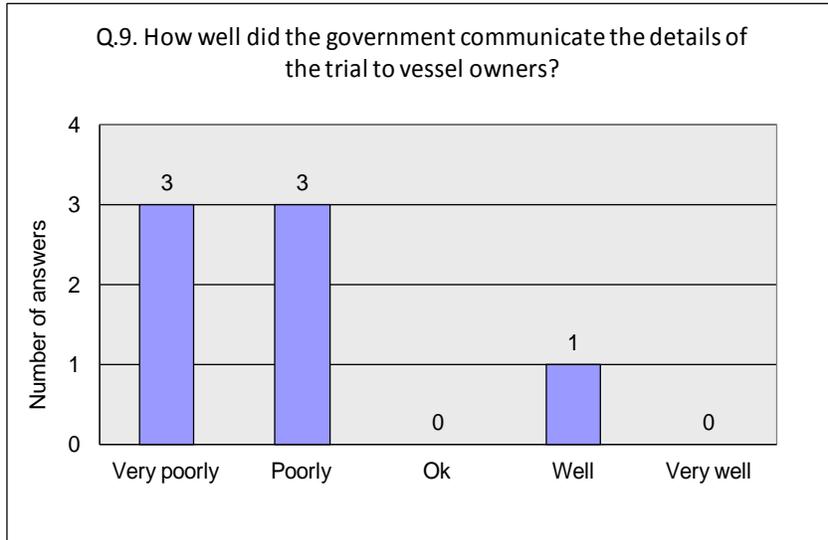
"To avoid being disadvantaged"

Q.8. Has the existence of the trial impacted on your amount of discarding?

Q8: Has the existence of the trial impacted on your amount of discarding?



Q.9. How well did the government communicate the details of the trial to vessel owners?



Q.10. Do you think the trial caused changes in the general cost of leasing cod or other species?

No:	0
Yes:	7

Yes:

“Another knock-on effect was that inter-vessel swaps become difficult as vessels on the scheme were unwilling to swap cod with those outside the scheme!”

“It increased leasing prices overall, especially at the end of the year”

“Prices went through the roof!”

“Increased prices and made quota difficult to obtain”

Q.11. What was the price range during 2011 of leasing in cod quota? The lowest price and the highest price per tonne that you paid?

	Average*	Range
Highest price paid	£1,440	£1,000 - £2,000
Lowest price paid	£970	£700 - £1,400

* non-weighted average, ie. sum of the prices divided by the number of answers

Q.13. Did you observe any changes in the availability and prices of cod quota at different times in the year?

- *“Prices increased due to lack of availability. But didn't see prices going up any more than normally happens”*
- *“Lots of people were holding on to quota and keeping hold of it. Prices only came down when lots became available”*
- *“Very difficult to obtain particularly during the summer months”*
- *“Availability was non-existent as far as we were concerned - too expensive”*

Q14: Can you say roughly how many tonnes of NS and/or other cod you leases in during the 2011 quota year?

- There were not enough firm answers to this question to allow us to estimate a weighted average price per tonne for leasing cod by the non-participants

Q.15. Are there any other ways in which the existence of the trial has impacted on your business?

No:	4
Yes:	3

No:

“Went fishing in the English channel due to days at sea”

Yes:

“The trial has also impacted on days allocated to vessels outwith the trial. In 2011-12, boats in the trial got unlimited days which apparently came from the pot which would have added to a reduction in effort for the rest of the fleet. It cost my business approximately £30,000 to rent enough days to keep my vessel at sea”

“Lease prices became too expensive, up to 35% more than usual”

“Possible knock on effects of the price of the cod on the market being lower due to the supply from the CQ boats”

Any final thoughts?

“The trial increased prices overall”

“Very divisive for the industry!”

“Cannot work in a mixed fishery”!

“Unfair advantage to the vessels on the scheme”

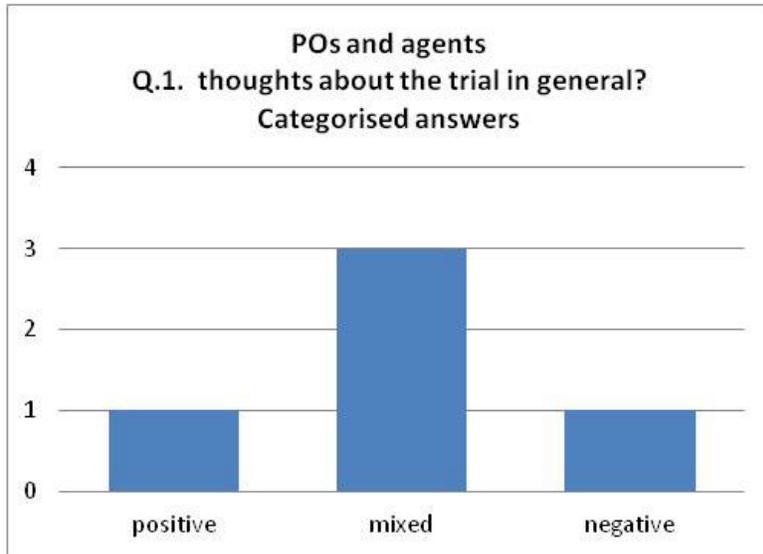
“Cameras are a good idea if they enhance the science”

Catch quota trial 2011
Agent and PO survey results
a report by Seafish to Marine Scotland

Report by Seafish to Marine Scotland

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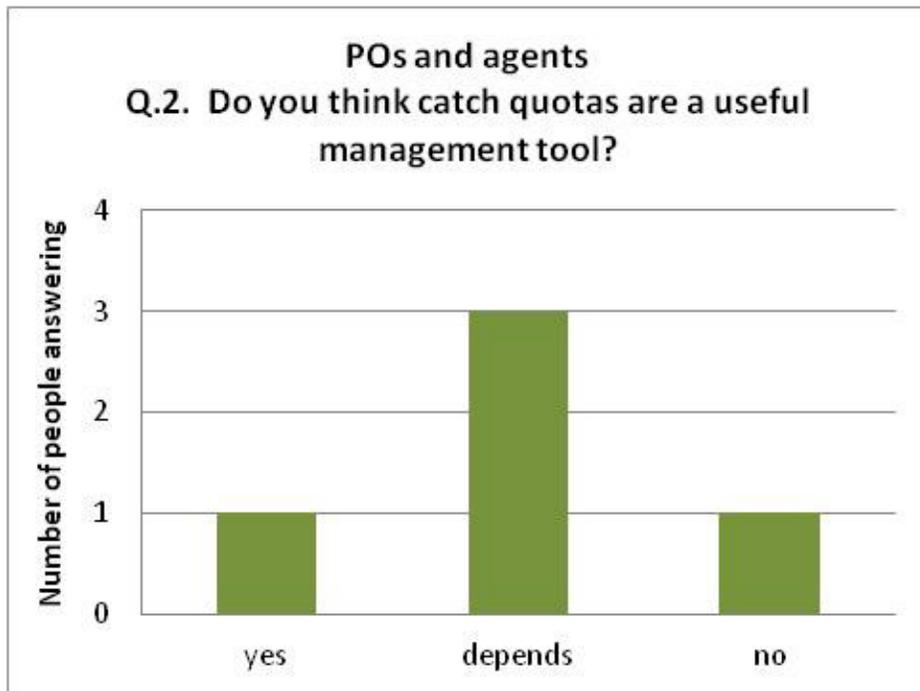
Q.1. Tell me your thoughts about the trial in general?



Highlighted comments:

Positive	Neutral	Negative
Has freed our boats up from days limits	If the cod quota itself was larger then this system would work much better.	Has pushed leasing prices up for cod, overheats the market for quota. (4 people)
All in favour of the trial	The fish on the ground is plentiful but quota is short	It has divided the fleet, been seen as a divisive measure. (2 people)
It's useful for us as we only put forward boats that would benefit from it	We do think there should be more boats on the trial. It's down to trying to convince the Norwegians.	Has a major impact on economics of the industry, record income last year for some, but record costs too. (2 people)
		People not in the trial discard more than before (2 people)
		Trial fairly disorganised, communications dreadful start of the year, got better

Q2. Do you think catch quotas are a useful management tool?



Yes:

"But 75% of the fleet are still discarding. Cod quota is too small to put all boats on it"

"Especially on tight quotas. Boats move away from small codlings which is good for the stock"

Depends:

"In terms of reducing discards, then yes. For overall system of industry management, no"

"If we could take a substantial amount from the discard column and add to the TAC, then yes, a useful tool. But Norway won't let us do that, not likely to happen"

No:

"Not getting the value of the scientific data from this trial. Whatever potential it has as a tool would have to be reconsidered from the start"

"For coley and haddock there is not enough slack in the discard column to make it work"

Q3. What impacts did the trial have on your own business costs, e.g. related to admin, etc?

None:	1
Not much:	3
Admin time cost	1

Not Much:

"Had to spend more time chasing down quota for our pair team"

"Didn't really matter. Cost to members of our PO is more important"

Admin Cost Time:

"Time spent at the expense of other things"

Q4. Do you think the trial caused changes in the general cost of leasing cod or other species?

Yes:	5
No:	0

- Guys not in the scheme are maybe catching more small haddock because they can't afford to lease in cod quota, so has an impact on health of stocks of other species too.
- To non-participants, even if they high grade to the most expensive sizes, the cost of leasing is so high that they make zero profit or a loss on cod landed
- It has lead to ill-feeling for non-participants who see that participants could dilute the £2,000 per tonne to lease cod with the cod quota they got for free on the scheme
- Raised the cost of cod and other species. Some of the increase is due to cut in quota
- Price increase in cod mainly, though not entirely, due to CQ trial
- Camera boats will pay an uneconomic leasing price for cod considering their spread of sizes landed, because they need it to land their other species.

Q5. Did you observe any changes in availability and prices of cod quota at different times during the year?

No:	1
Yes:	4

No:

“Not really. Any quota units we hold is allocated at the start of the year”

Yes:

“People held on to it, and all species, for longer. Not certain if entirely due to CQ trial, some due to quota speculation”

“As the year went on it got progressively more expensive. As it became available, you went for it and you bid a bit extra over the last known sale price to make sure you got it”

“At the end of the year, some uncaught quota was trading at 1/3 or 1/2 of typical price”

“Because of amount of cod in the sea, the uptake of cod is very high so demand for quota went very high early in the year”

“Because of expectations of high prices, some people with small amounts became speculators”

Q6. Did you observe any impact on buying and selling of cod quota units, as opposed to leasing?

No / not really:	3
Probably:	1
Price went up	1

No/ Not Really:

“No. The price has risen but it’s not down to the CQ scheme”

“Nae really. You won’t pick up clean cod quota units anyway, it’s aye sold as a mixed bag. The price did go up for track records”

Probably:

“Generally not much buy and sell activity recently. Probably been some influence, people hanging on to units”

Yes:

“Prices went up but for all species”

Q7. Any final thoughts?

“Tempers are very high, there’s anger about rollover of the same boats into the 2012 trial”

“Has really emphasised the split between the haves and have nots in the fleet”

“If going to roll this out then have to think long and hard, would reduce fleet size to about 1/3 of current size”

“A Fully Documented Fishery is ok in general but has to be real”

“A worrying aspect of the trials is that it hasn't saved any cod”

Main findings from survey

- Very mixed feelings about the CQ trial from agents and POs
- More negative comments than positive
- Universal recognition of the split caused in the fleet by having only a minority of boats on the trial – desire to level out the playing field within the fleet
- Price of cod quota leasing widely believed to have increased due to the trial, prices climbed toward year end then fell at very end to dispose of uncaught quota
- Great concern about extending CQ to species with too low quotas...
- ...or desire to see those quotas increased to match what is caught, eg. saithe, coley

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