Chasing price premium: On the economic and wider benefits of a local eco-labelling scheme for seafood

FY 278



PW 362







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Early impact of the report



A draft version of the report was provided to Cornwall Wildlife Trust (CWT, the managers of the Cornwall Good Seafood Guide (CGSG in January 2021. As of November 2021, the Trust have already implemented many of the recommendations in several interesting and informative ways. Below is a summary of this early impact as well as a vision for the long-term legacy for the CGSG.

The quotes in this section are a selection from the Cornwall Wildlife Trust.

A member of staff has been appointed as a Marine Business Advisor to work more closely with fishers in the Mevagissey and the Fal area

"Getting the fisher's opinions from the SWEEP report was really helpful, especially as they could be completely honest with Océane as an independent academic. I don't think we would have had the same response if we'd conducted it ourselves. The recommendation for needing more one-on-one work with them, or more involvement with the fishing industry themselves, has been crucial in helping to lever funds down to get Abby in post to take this work forward."

"The report was invaluable in helping us get the project accepted as a core piece of work within the Trust, which enabled us to go down that specific route of employing someone to take on this oneon-one advisory role. We're focussing on one area for now, as a kind of trial, but hopefully will roll out to a wider area over time."

Increased promotion of the CGSG, including through social media

"We've now got some support from the marketing team at Cornwall Wildlife Trust, which is great, and we're seeing a consistent level of social media coming out about the project. I think we're in a really good place and it's freeing us up so we can run the project. Levels of interaction with our website have continued to increase every season. Last year was our busiest year ever and we're now getting known nationally that we do this."

Increased targeting of primary buyers and food businesses to join the scheme

"The business support team within CWT has now taken on the role of recruiting new businesses to the scheme so that there is specialist support for developing this area of the CGSG. It's been a challenging time for businesses, due to Covid restrictions, but many had a hugely successful season when they did manage to open. So far we've focussed on maintaining relationships and supporting the businesses already enrolled in the scheme and our business support team at the trust are going to be building on that and establishing new relationships in the coming year".

Plans in place to update the way fishers sign up to the scheme to instil a more formal framework

"We really want to improve the enrollment process, along the lines of the recommendations of the report. At the moment the fishers are simply asked if they are willing to be on the website, but we plan to create a more formal process. We may issue certificates as well; in the same way we do for businesses."

Plans to increase the visibility of CGSG labelled catch by implementing stamp/ stickers that fishers can use to label their boxes

"We really like the idea of having a CGSG sticker on the fish boxes at the markets, we can see the value of this and think it would be a great addition to the scheme."

Legacy

"In the long term we want to see fishers trusting us and working with us to improve the sustainability of their activities. We strive to ensure the legacy of this work will ultimately be a more sustainable marine environment. We've got the evidence to back up management decisions and voluntary changes in their practices, which will result in more sustainable use of the resource and the ecosystem as a whole."

"SWEEP has helped to put down in words, in terms of a strong report, the benefits that we hoped the scheme was having. We knew anecdotally, from talking to people on the harbour edge and on boats, that CGSG was beneficial, but we didn't have the capacity or capability to pull that together and put it in a formalized report. It has been incredibly reassuring to have this confirmed so I think that's been really beneficial."

"Also, having an independent view on our work has been really helpful. Some of the recommendations that came out were things that may have been considered in the past but not enacted. The SWEEP report added value to our work in terms of the wider promotion both within the trust, where it's helped the project get accepted as a core piece of work, but also externally. It's added that weight to help us move forward rather than it just be a short-term activity. The CGSG project had the potential to just go 'OK, we've achieved the outputs, let's finish there', it hasn't, and I think the SWEEP report helped to demonstrate that there's still scope to do much more work. The report has helped support the trust, and the trustees to make the decision to continue the seafood guide as a core piece of work until further funding comes along."

Océane's report also informed the Rose Regeneration review of the CGSG commissioned by the Fishmonger's Company in 2019:

"Océane's consumer data was really useful, it gave us a perspective on the level of impact of the CGSG in terms of influencing consumer behaviour. It enabled us to come up with some recommendations that they think in a more proactive way about the quality of their publication and the way their publication seeks to interact with the public and how further downstream it affects people's behaviours, which of course is what they're really principally meant to be about."

Ivan Annibal, Rose Regeneration

Executive summary

This report details the results of a research project focusing on the benefits of a local seafood labelling scheme for fishers. The research was conducted in collaboration with the Cornwall Wildlife Trust (CWT) who wanted to assess the impact of their scheme, the Cornwall Good Seafood Guide (CGSG).

Food labelling (or certification) schemes can play a key role in achieving sustainable use of natural resources. Yet, the existing literature provide divergent evidence regarding the benefits derived for the producers from the schemes. It is important to understand when and under which conditions food labelling schemes provide enough benefits to incentivise producers to join.

The research protocol was designed to answer the following research questions:

- i. What are the main benefits to fishermen from participating in local eco-labelling schemes? What is their motivation for participating?
- ii. Does eco-labelled seafood command economic benefits such as a price premium?
- iii. Has membership of eco-labelling schemes led to changes in practices towards those that could improve fishery sustainability?
- iv. What obstacles are there to participating in eco-labelling schemes?What are the preconceptions of those who are not members of existing schemes?

Cornish fishermen have been interviewed to collect data about their fishing activities and their opinion regarding the CGSG as well as other labelling schemes. Data collected have been categorised and analysed using thematic analysis. The CGSG is widely known and supported but it is hard to evidence economic benefits. The work done by the CWT to promote local seafood is considered as a significant benefit of the CGSG. Data collected on other seafood labelling schemes highlighted three factors that can explain the success of a labelling scheme for a given fishery:

- The benefits retrieved by the fishermen must exceed the burden of being part of it;
- A minimum degree of institutionalisation is needed;
- The scheme needs to meet the market demand (primary buyers and/or final market).

Based on our analysis, we produced five recommendations to improve the CGSG:

1. Improve the clarity of the CGSG remits, especially for fishermen;

2. Increase the visibility of CGSG labelled catch by implementing stamp/ stickers that fishermen can use to label their boxes if they want to;

3. Boost internal and external communication around the CGSG; including using social media (as they are increasingly used by fishers);

4. Expand the number of member affiliated to the scheme by increasing the number of

a) primary buyers, food businesses, and b) fishermen (using specific targeting and by building stronger relationships with Cornish fishing organisations);

5. Strengthen the CGSG network and create opportunities to foster connections and networking between members of the CGSG.

I Introduction

Eco-label or certification schemes are a "voluntary market-based mechanism of environmental certification" (Weitzman & 2018), developed tackle Bailey, to increasing overfishing. By consumer information, ecolabels aim to translate sustainable practices into market advantage.

Labels can be broadly defined as "a form of communication with the end consumer" (Dankers 2003). Environmental programmes, also known labelling as ecolabelling schemes, "award a mark or logo to products or services upon fulfilling criteria" (International of а set Organization for Standardization 2019).

Standards can be seen as a "formula that describes the best way of doing something" ('ISO - Standards' n.d.). They are "documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines or definitions, to ensure that materials, products, processes and services are fit for their purpose." (Dankers 2003).

A certification is an "[a]ssurance given by an independent certification body [...] that a product, service or system meets the requirements of a standard." ('ISO - Glossary' n.d.).

The accreditation refers to "system of rules, procedures and management for carrying out certification, including the standards against which it is being certified" (Dankers 2003).

However, the economic benefits of food labelling schemes are hard to assess. Some studies do find a price premium (Sogn-Grundvåg, Larsen, & Young, 2013) others find no evidence of this (Bellchambers, Phillips, & Perez-Ramirez, 2016) or huge variations in price premium depending on retailers and the type of eco label. (Asche, Larsen, Smith, Sogn-Grundvåg, & Young, 2015).

Regarding the impact of ecolabels on producers' income, Weber (2011) found that price premiums have a modest effect on coffee growers incomes. Chang (2012) found that aquaculture producers, participating in an ecolabel and food traceability system, retrieved higher income when their products were labelled as sustainable than when they were not.

However, Chang (2012) underlines that the use of labelling seems to be different explained bv characteristics, such as the producer's education and working experience. Yenipazarli his (2015) stressed that a "price premium does not ensure a profit premium". In the same way Yenipazarli (2015) also underlined that consumers' stated willingness for ecolabelled to pay products does not always equal what they are really ready to pay.



Besides potential impact on price and income, other types of benefits have been identified. Certification can help access new markets and reduce tariffs (Bellchambers et al., 2016). In their study Blackman and Rivera (2011) also mention lower price variability as another possible benefit of certification. Carlson and Palmer (2016) mention learning benefits (especially about environmental issues), government support and empowerment (also mentioned by Bellchambers et al. (2016)) as well as reputational benefits as important factors.

The Cornwall Wildlife Trust (CWT) has developed a seafood labelling scheme, the Cornwall Good Seafood Guide (CGSG), to "provide clear and accurate information to help consumers and businesses make environmentally informed decisions when purchasing Cornish seafood" (Cornwall Wildlife Trust). The CGSG uses the Good Fish Guide, a rating system developed by the Marine Conservation Society. The Good Fish Guide provides a traffic light system to assess the environmental impact of seafood. The rating ranges from 1 ("Best choice") to 5 ("Avoid"). The final rating is produced using three main criteria, which are then combined to produce a score. For wild capture, the three criteria are: stock or species status; management; ecological impact of the fishing or capture method. Fish rated 1 to 3 are recommended by the CGSG and can be marketed through the use of the CGSG 'recommended' logo (MSC website 2022).

Other organisations, including the Blue Marine Foundation, working in the North Devon Biosphere Reserve, are considering establishing other local eco-labelling schemes for fisheries in the South West. Currently, however, there is little evidence of the perceived and realised benefits to fishermen and businesses of participation in such schemes.

PML has been working with the CWT to better understand the impacts of the CGSG. This research aims to investigate the impacts of local ecolabelling schemes on fishermen the West the in South and attitudes towards labelling schemes amongst the public. This present report focuses on the fishermen's perspective.

This part of the research aims to answer the following questions:

- i. What are the main benefits to fishermen from participating in local eco-labelling schemes? What is their motivation for participating?
- ii. Does eco-labelled seafood command economic benefits such as price premium
- iii. Has membership of eco-labelling schemes led to changes in practices towards those that could improve fishery sustainability?
- iv. What obstacles are there to participating in eco-labelling schemes? What are the preconceptions of those who are not members of existing schemes?

Section II details the data collection process and the method used to clean and analyse the data. **Section III** presents the results including general information about the respondents and their fishing practices (Section III.1), results regarding the CGSG **(Sections III.2** to **III.5**, including answers to questions i. to iv.).

Section III.6 provides information regarding other seafood labelling schemes mentioned by the fishermen during the interviews. Three other schemes were mentioned:

- the Marine Stewardship Council, a worldwide certification scheme;
- the bass tagging scheme, a Cornish labelling scheme;
- and the Responsible Fishing Scheme, a global certification scheme.

Section III.7 includes recommendations.

The report was written to feedback the results of this work to the CWT. The report was sent to the CWT in January 2021.



II Material and method

1. Data collection

Two question prompts were developed to conduct the semi-structured interviews, one targeting fishermen part of the scheme, the other one targeting fishermen not part of the CGSG. The first question prompt was structured in four parts. The first part focused on fishing activity (target species, gear used...) and characteristics of primary buyer (wholesaler, fish market, food businesses...).

The second part include questions on the decision to join the scheme (how they learnt about the scheme and why they decided to join, their expectation when they joined the CGSG...).

The third part focused on the impact of the scheme for those fishermen. The questions were designed to collect information about benefits (economics as well as other types of benefits) retrieved by fishermen linked to the CGSG. This section also included questions about possible negative impacts or issues associated by the CGSG. The final part of the question prompts gave an opportunity to the fishermen to add anything, discuss any other topic.

The question prompts for fishermen not part of the scheme followed the same structure.

The first section of the prompt is the same.

The second section of the prompt started by asking fishermen if they already knew of the scheme.

If interviewee had never heard of the scheme, some background information was provided.

If they already knew about the CGSG, respondents were asked when and how they heard of it.

The third section focused on the anticipated advantages or issues of being part of this scheme as well as other seafood labelling scheme in general.

The final part of the prompt also gave the opportunity to the fishermen to add anything. They were also asked if they would consider joining the scheme, and why, stressing that we were trying to understand the "why" more than the willingness to join the scheme or not.

Interview number	Number of	Location of the interview	Home port	Part of the scheme
hamber	fishermen			(yes/no)
1	1	Newquay	Newquay	No
2	2	Newquay	Newquay	Yes
3	1	Newquay	Newquay	Yes
4	1	Newquay	Newquay	Yes
5	1	Newquay	Newquay	Yes
6	1	Mevagissey	Mevagissey	Yes
7	1	Mevagissey	Mevagissey	Yes
8	1	Mevagissey	Mevagissey	No
9	1	St Ives	St Ives	No
10	2	St Ives	St Ives	No
11	1	Truro	Newlyn	No
12	4	Looe	Looe	No
13	4	Looe	Looe	No
14	1	Looe	Looe	No

Table 1. Main characteristics of the interviews conducted with fishermen

We conducted semi-structured interviews with fishermen between October 2019 and March 2020. Twenty-two fishermen, either part (n=7) or not part (n=15) of the CGSG scheme have been interviewed during a total of 14 interviews, lasting between 20 minutes and 1 hour 10 minutes (Table 1). One interview was made over the phone (interview number 5), the others were conducted face-to-face, in Newquay, Mevagissey, St Ives, Truro and Looe, in public spaces.

2. Data analysis

Interviews have been recorded, transcribed, coded, and analysed using Sonal (a free software for qualitative research). The coding grid with the different themes have been developed using an iterative approach: a set of themes relevant for our research has been defined and tested on four different interviews.

The main objective was to have a coding grid that was specific enough to answer our research questions but general enough to be relevant for most of the interviews. Interviews were also coded according to general characteristics (whether the respondent is part of the scheme or not, fishing harbour...). Sonal also offers the option of adding tags to sections of an interview (on top of themes) allowing for a more specific coding. Once all the interviews are coded into Sonal, it is possible analyse the results theme by theme and according to the characteristics of the respondents. For instance, all the sections of interviews with fishermen part of the scheme dealing with economic benefits.

Figure 1 is a screenshot of Sonal main window, displaying the interviews (represented by a line in the right panel) and the thematic used to code and organise the data (left panel). Once coded and organised, a cross-interview, "theme by theme" analysis has been done. Because of the small sample size, we rarely tried to quantify the results but rather used the cross-sectional analysis to get a deeper analytical understanding of the data collected and develop an explanatory analysis. When relevant, a quantification of results will be presented (see section III.3.b).



Figure 1. Snapshot of the result of the coding process in Sonal

III Results

1. General information about the fishing practices and activities of fisherman met

Most fishermen target at least two different species (n=18). Lobster is the species targeted most often by fishermen (n=9) followed by mackerel (n=8), bass and crab (n=7 for both, see table 2). Seven fishermen use more than one gear (see table 2 for details).

Target species	Number of fishermen targeting each species	Gear used	Number of fishermen using each
Lobster	9	Pot	gear 10
Mackerel	8	Line	6
Bass	7	Net	5
Crab	7	Ring-net	2
Pollock	6	Single-handed trawler	1
mixed white			
fish	2	Handline	1
Sardines	2	Stern trawler	1
Sole	2	Tangle net	1
Turbot	2	Gill-net	1
Anchovies	1		·
Cod	1		
Crawfish	1		
Cuttlefish	1		
flat fish	1		
Hake	1		
Herring	1		
lemon sole	1		
monk	1		
Mussel	1		
Spider crab	1		
Squid	1		

Table 2. Target species and fishing gear used by fishermen

Twelve fishermen always sell their catches to the same buyers. The 10 remaining sell to two or three different buyers. Thirteen fishermen sell some or all their catches to supplier and/or processor (e.g. Matthew Stevens, Fallfish), 11 to markets (Brixham, Plymouth, Newlyn), four to restaurants, two to fishmongers, one to Plymouth Trawler Agent. Some fishermen mentioned doing direct sales if being asked by passer-by when unloading their catches. Only one does direct sales regularly during summer time. Fishermen rely on long-term, established relationships with their buyers:

"So I'm happy with my price, I'm not going to break away from them, they're brilliant. I'm a Falfish man through and through."



An extreme case being one fisherman witnessing the growth of his buyers:

"I was there when he started, three ladies, two men and she's now got 94 staff,14 long - wheelbase sprinters and a turnover of several million."

Another fisherman mentioned trading with the same buyer for 30 years. Quality and traceability of catches plays a key role in the trust buyers place in fishermen:

"Matthew Stevens want all our shellfish, all our crabs and all our lobsters, can't get enough, can't catch enough. [...] He knows it's good quality."

"That's the thing with buying off all of us, you get the traceability line, so they can... up in London or in the restaurant, they can say... because I usually send them a photograph every year of the boat, or what we're doing, and that's on the menu, or the restaurant, so it's the traceability for them, which is what is key to sort of driving it a bit. They have a grumble about the price, but they get it there six o'clock in the morning so they can't moan about it."

"My boat's called [Boat's name] and they buy off [Boat's name] four or five times and if every time they're getting top quality fish, they'll buy it again and again and again. they don't need to look at it, they know what they're going to get and I think that goes a long way."

"Give them a good product, then you get good money, that's all it boils down to."

On the other side, fishermen value suppliers that make ashore processes as easy as possible:

"Yes, they come to pick the fish up every night. [...] Put the fish in the fridge with a tally on it to say whose fish it is and pick up the phone and say: Mevagissey, five boxes."

"Yes, but the last thing you want is to have a good catch and then worry about if you could sell it or not. If you mainly shift it through a supply chain on Twitter or to London restaurants and if they've had a bad week and they don't want to buy much this week and you're left with this catch that you're struggling to shift, then that's a nightmare for you."

"You've got to be confident that you could shift everything you catch without any stress each time.[...] [Falfish will] take as much as I can catch. Basically I catch more or less what I want at each time of the year and they take everything I catch. So I can just choose what I want to do, to a great extent. It's perfect. You can see why they're pretty dominant, for me anyway or for quite a few boats."

Two fishermen were "contemplating" increasing direct sales. The others are happy with their current selling practices. The main reason for not increasing direct sale is because "it's too much of a hassle to do it."

"The worst part of their day is actually landing the fish when they get ashore. [Fishermen] would rather be out catching a few more fish. So anything that is shore based that relates to that and takes up time from fishing, they're not really interested in."

2. A scheme widely known and supported...

The Cornwall Good Seafood Guide (CGSG) scheme is widely known among fishermen, as 16 of them have at least heard of it (including those already part of it, see Table 3. For details). Most of them heard of the scheme through Matt Slater (n=9), others have learnt about it through: magazine (n=1), internet search and website (n=2), printout/leaflet (n=1), videos "meet the fishermen" when the Cornish Fishermen Producer Organisation (CFPO) sent the link (n=1) and television (n=1).

	Have heard of the CGSG		
	Yes	No	
Fishermen part of the CGSG	7	0	
Fishermen not part of the CGSG	9	3	

Table 3. Number of fishermen aware of the CGSG,

One successful strategy to disseminate information about the scheme is to talk with board members of Cornish fishermen associations and groups such as the CFPO (see above):

"I think he got hold of the Cornish Sardine Management Association, of which I'm [a board member], and he wanted a trip out on the boat so I said he could come out with us, and then we'd been talking a bit and then he explained about the Cornwall Good Seafood Guide because I'd never heard of it."

This strategy could be pushed further as board members of other Cornish fishermen groups have never heard of the scheme: *"we've never really been offered that or approached by anybody to say do you want to become a member"* (See section 7.b).

The scheme is widely supported by fishermen, who see it as a great way to,

"promote sustainable fishing practices in Cornwall" and *"increase the number of people eating seafood":*

"I think things that the Cornwall Good Seafood Guide have done is trying to promote people eating cheaper fish as a good thing, because it's always seen as, oh let's go out, let's have bass, let's have lobster, let's have things like that. There are fish you could buy for everyday prices and that would encourage people to eat it more regularly."

Only one fisherman (not part of the scheme and with no previous knowledge of it) expressed a reservation regarding the scheme:

"You'll forgive me for being a little bit suspicious. I'm always very suspicious, when it comes to Cornwall Wildlife Trust, whoa, hold on a minute, you tend to be a little bit..."

He however remained open and added,

"It sounds great. I've got to be honest, it sounds really good" after being given further information about the CGSG.

3. ... with some shortfalls

The process to join the scheme appears to be unclear. One fisherman was unsure whether he is part of the scheme or not. Two other fishermen part of the scheme underlines that they are part of the scheme almost by default:

"I'm more out of the scheme than you might think.."

Fisherman 1: "I didn't join the Cornwall Good Seafood Guide; I didn't say I wanted to. Matt put me on there to add more to the guide. It wasn't something I particularly sought out".

Question: It's not like something you've signed your name to?

Fisherman 1: "Not really. He said can I do a piece about you and I said yes, so that's why I'm on there. It's not something I sought after."

This can be an issue in the long run, where support from fishermen might be essential to its expansion. Fishermen interviewed remain largely supportive of the scheme. Making the joining process more official might help institutionalise the scheme and increase its recognition.

There is also some confusion regarding the purpose of the scheme, with some interviewees assuming the CGSG is trying to compete with other labelling schemes:

"The supermarkets recognise MSC, it's international and our clients are international that we're selling the fish to. So that is the industry standard, to some extent. It's not perfect, it's got many flaws and in many ways the fishermen resent it for its flaws but at the moment, that's what we've got to work with and the Cornwall Good Seafood Guide doesn't really have a hope of competing with it. Because the customer base is so international, they don't know what this Cornwall Good Seafood Guide is."

This also highlights a possible issue in the current target population. Despite being supportive of the scheme, fishermen selling their catches to international buyers are not highly interested as their buyers do not know about the CGSG. They cannot derive economic benefits, such as market access, from a local scheme unknown from the end buyers. International schemes, such as the MSC, are more relevant.

The issue of the CGSG species ranking system has been raised during 8 interviews, even by fishermen part and supportive of the scheme. Fishermen do not understand the ranking of some species they considered as being sustainable in term of stocks and fishing practices:

"I don't agree with everything that the good seafood guides are saying. I think lobster is not top of their list when I feel it's a very sustainable fishery and I think there are other things I don't agree with."



This question relates to a bigger underlying issue, not limited to the CGSG. Fishermen question the relevance of scientific knowledge on fish stocks compared to their own knowledge and daily experience of fish presence at local scale. They challenge the relevance of the geographical scale of scientific data, arguing that data at national or ICES statistical rectangle scale is not giving accurate information of what is happening at the local scale:

"What we see out there in real time compared to what the scientists say is completely different. The mackerel have gone north. The same as the haddock came here for a couple of years and what happens; cod have gone. We used to have a tremendous cod season here in January, gone. You're lucky if you see a cod now. And yet scientists will say that's because they're wiped out, whereas when they were saying that 20 years ago, there was hundreds of them. But I don't think it's that, they just move. We've got blue fin tuna here now."

Even though fishermen do not blame the CGSG directly (*"not that it's a problem with the Cornwall Good Seafood Guide because it's not their issue, they're only going on the guidance they're given on whether stuff is sustainable"*) they still would like to see a more "Cornish-based" ranking system (see section 7.b). Interviewees also disagree with some information on endangered species given at global scale:

"It's not down to scientists on another coast to say that it's endangered. We are fine. It's a totally different thing here, in the end, what we were catching we were not getting the money for it because somewhere else it was endangered. And it was all over the news that it was an endangered species" [about ray species] "so maybe what apply at larger scale might not be relevant at local scale. But the Cornwall guide should be reflecting the Cornish fish."

Several interviewees mention experiencing direct impact in terms of drop in price and/or demand of the listing of species as endangered. In such cases some fishermen report catching more to make up for the price drop, and note that is could have significant impact on the stock. Few of them have pre-existing arrangements and are able to sell some of their catches to the Spanish and French market:

4. Looking for benefits derived by fishermen

This section provides answers to research questions i. and ii. (see Section 1. Section 4.b ("The importance of doing its bit, and moving forward one step at a time" answers research question i. ("What are the main benefits to fishermen from participating in local eco-labelling schemes?What is their motivation for participating?". Section 4.a ("Chasing economic benefits" focus on the first part of our first research question ("What are the main benefits to fishermen from participating in local eco-labelling schemes?"

a. Chasing economic benefits

Perception of the impact of the CGSG label on consumer demand and purchases varies across interviewees. Some mention "never not been able to sell fish". Others hope that being part of the scheme can help them bring new buyers:

" think relationships to other people it will do. If you're signed up for it and restaurants know you're signed up for, and they're signed up for it as well, it's going to bring in the two, the suppliers and the buyers, all together. It is something that links."

Some interviewees are convinced that consumers rely on label to make an informed choice when purchasing seafood, leading to increase labelled seafood purchase:

"If at the end of the day I can put on my tally that it's CGSG certified fish, people love that sort of thing, especially down the market 'this is certified by...' they love that and there will be a bit more demand for it because they are always looking for next best thing, what they can put on, sell it to fishmongers and put one that it's sustainably caught, linecaught fish no 'bycatch', it's a clean product, this is where it come from, they love that sort of thing."

"People are looking now for the labels. They seem to be a lot more picky on what they're buying. So if it's got a name and it's got a label, then they're 99% sure they're going to pick it up."

Fishermen acknowledge the benefits of having food businesses, processors and wholesalers included in the scheme. The CGSG creates a community with possible positive trickledown effects for fishermen in terms of market access and sales increase (due to promotion and acknowledgement of the scheme):

"I think relationships to other people will do it . If you're signed up for it and restaurants know you're signed up for, and they're signed up for it as well, it's going to bring in the two, the suppliers and the buyers, all together. It is something that links.."

Others were more sceptical regarding the actual impact of label on demand:

Fisherman 1: "I think we thought maybe it would have a better impact then it has done, although it is recognised quite widely in Cornwall."

Fisherman 2: No it is better than that, no it's good, because people can see."

Fisherman 1: "Yeah but does anybody take any notice of it?"

Fisherman 2: "Of course they do."

However some interviewees are unable to confirm the impact of label on purchasing habits as their knowledge is focused on the production part of the supply chain:

"It's hard to say because I don't follow the fish through the chain so I don't know if people are buying it because they know we're in the scheme or not. People buy our fish on the market, I don't follow the fish. Once it leaves here on the lorry, it's gone and I don't follow who buys it, where it goes, what restaurant it ends up in. So it might have helped but I can't say yes or no for sure. I'm sure it has but I can't prove it."

Other economic benefits such as price premium or improved access to market are hard to pinpoint. One interviewee mentioned that *"in Pollock there's been a slight increase in the past five year probably. The price has gone up as well and there's been slight more demand for it".*

Some interviewees are open about the absence of changes since joining the scheme:

Question: "So if you've been part of the scheme for five years, up until you sold your boat today, did you see any difference as a result of being part of the scheme?"

Answer: "Not really, I don't think so. Not at a personal level, no."

The following feedback from another interviewee, not currently part of the scheme, follows the same lines:

"We don't want the hassle of joining multiple schemes unless they offer us tangible benefits and the Cornwall Good Seafood Guide currently has no tangible benefits." At best, interviewees are postulating positive impacts of the scheme but struggle to clearly identify them:

"Yes, I think they are benefitting it but because we don't follow our fish through the whole trail, it's hard to pinpoint and say yes, we definitely are seeing a difference because of that scheme. I'm sure we are but I can't..."

"So he's buying sustainable fish through the Good Seafood Guide which is being promoted in Cornwall going to London. So it's got to have a snowball effect."

When changes are observed, it is hard to determine the role played by the CGSG: *"Prices have increased, yes, slowly but I think that's just purely down to demand"*.

It is worth noting that fishermen do not complain about their selling prices, four of the interviewees mentioning being *"happy with price"*, which might explain the strong support for the CGSG despite the paucity of tangible impacts on price.

b. Wider benefits of the CGSG scheme

Eleven interviews mention benefits of the CGSG beyond economic considerations. Fishermen stressed the importance of the scheme in promoting the fishing industry to increase general public knowledge and support, one person at a time:

"When you said do you need a benefit to do any of this it doesn't has to make me more money but it's good anything that's look good for the fishing industry, looks like something fishermen are trying being proactive to help [...] then people might buy fish from Newquay harbour because something good is going one down there, or in the public eye for it so like this, if this makes someone else buy fish locally instead of going to the supermarket, we're winning, don't we? and it's really good if they enjoy it and tell someone else and someone else might buy it."

"I didn't really think it could do a lot for us. I just thought it wouldn't hurt to promote Cornish seafood and if it only made one or two more people eat seafood regularly, it's worth doing. The knock on effect might help us because we might sell more fish. I didn't think it would do anything personally to our business to make us more money. Anything that promotes seafood is good in the long run. I was looking more at the bigger picture rather than just personal gain on it."





The promotion work carried out by Matt Slater about Cornish fisheries, sustainable fishing practices and species is widely acknowledged by the interviewees (see also section 5):

Fisherman: "*There's definitely more publicity and exposure for the fishing industry as a whole through the scheme, yes.*"

Question: "Is it like press articles or people are more aware of it so they ask more questions?"

Fisherman: "I think a lot of it is obviously through the press and obviously we seem to be getting more and more visitors coming to the harbours and asking questions on the fishing industry. They take more of an interest than what they used to and definitely a lot of them are eating a lot more fish."

For fishermen, being part of the scheme means supporting a cause greater than their individual case. They are *"always open for things like this because it benefits us all"*:

"I am quite open to helping. Back to what you were saying that I would only do it if it benefits me someway or money wise but I think you've all got to try a bit, got to try because in the end it benefit all of us."

Some interviewees even mentioned that by being part of the scheme they felt like they were taking an active part in marine conservation.

Finally one fisherman described the CGSG as a good way to know about the fishing industry in the county:

"it's all just extra feathers and it just all helps, especially to know what's going on around the rest of the county with different fishermen, their views on different things", highlighting one upside of the scheme: creating a community."

5. Working towards buying habits changes and the case of spider crab

Eight interviews underline the importance of the promotion work conducted by Matt Slater. Fishermen deplore that eating seafood is not a bigger part of the English culture. They support the CGSG effort to promote seafood consumption and *"spider crab, fish that don't normally, when people think of fish, [...] think about."*

"And if someone thought, oh I'm going to treat myself on Friday and have steak. If you want to go and buy a sirloin steak from the butchers, you could get a portion of lobster for that price, but it's always seen as, and I don't know why in this country, a luxury item. I think things that the Cornwall Good Seafood Guide have done is trying to promote people eating cheaper fish as a good thing, because it's always seen as, oh let's go out, let's have bass, let's have lobster, let's have things like that. There are fish you could buy for everyday prices and that would encourage people to eat it more regularly."

Interviewees hope that the promotion will increase demand for species little known but with healthy fish stocks. Some fishermen consider the promotion work done by the CGSG as one of the main benefit of the scheme:

Question: "Have you seen any other kind of benefit – you said before that you didn't have any issues to sell your..."

Answer: "No, we've never not been able to sell fish but they did quite a bit of work promoting stuff like megrim soles and stuff. They tried to promote that as a good... so we sold them before and we sell them now but maybe there's more staying in this country where a lot got exported before. So I can't say it hasn't helped. But I'm sure it has helped because they're always promoting stuff. They've done quite a lot of work with spider crabs as well. So it's bound to get people eating them that wouldn't. So hopefully there's less going to the Continent and more staying local."

When focusing on fishermen part of the scheme, the promotion done by the CGSG regarding less known species is the benefit most often mentioned (n=4, see Table 4), followed by the promotion of locally and sustainably caught seafood (n=2) and having more people eating seafood (n=2).

One interviewee mentioned an impact on Pollock's price and three mention no direct effect of the scheme (one still acknowledg-ed the importance of the work done by the CGSG in promoting less known species).

Question: "What has been the most important effect of joining the scheme, for you as a fisherman? "

Answer: "By promoting... they've been doing a lot of promotion of spider crab, fish that don't normally, when people think of fish, they just think of haddock and you know the standard fish they think about, they don't know there is a lot of variety of fish and I supposed they got the message out [that] there's other fish."



Table 4. Summary of the main benefits (including lack of benefits) of the CGSG mentioned by fishermen part of the scheme.

The categories of benefits highlighted in the table have been identified and constructed using the thematic analysis (see section 11.2), using mainly answers to the following questions: What has been the most important effect of joining the scheme?; Have there been any other benefits?; Have there been any particular economic benefits to your business?.

Fisherman part of the scheme	Being part of the CGSG add value to catch	The CGSG is beneficial as encourages more people to eat seafood	Benefits of the CGSG lie in the promotion of locally and sustainably caught seafood	Benefits of the CGSG lie in the promotion done regarding less known species	The CGSG has no tangible effect	Example of answers provided by fishermen
1					1	I think we thought maybe it would have a better impact then it has done, although it is recognise quite widely in Cornwall
2	1	1	1	1		No it is better than that, no it's good, because people can see In Pollock there's been a slight increase in the past five year probably. The price has gone up as well and there's been slight more demand for it. I don't know what people do with it
3				1		No. I think there has been good promotion from it. I've got it on Instagram and Facebook here and there is stuff popping up. They came down here in the summer and did a thing on spider crabs. Not for me at the moment, because Matt said that when I get all this together, then I can have the label and attach that to it all and stuff, but I haven't got to that stage, so hopefully as a work-in-progress, it will make a difference, but for a minute I can't say that it has because I haven't used it
4			1	1		I think they're promoting local fish and shellfish. [] It's good promotion for local fish and shellfish.
5		1				I think a lot of it is obviously through the press and obviously we seem to be getting more and more visitors coming to the harbours and asking questions on the fishing industry. They take more of an interest than what they used to and definitely a lot of them are eating a lot more fish Prices have increased, yes, slowly but I think that's just purely down to demand
6					1	The Cornwall Good Seafood Guide currently has no tangible benefits.
7				1	11	they did quite a bit of work promoting stuff like megrim soles and stuff. They tried to promote that as a good[] They've done quite a lot of work with spider crabs as well.
Total	1	2	2	4	3	

¹ The interviewee responded "Not really, I don't think so. Not at a personal level, no." to the following question: "So if you've been part of the scheme for five years, up until you sold your boat today, did you see any difference as a result of being part of the scheme?"

Fishermen have been highlighting several successful cases of changes in consumer habits either thanks to promotion by well-known chefs (e.g. the gurnards that used to be used as baits) or by renaming the fish (from pilchard to Cornish sardines):

"Plentv of gurnards here and now since Rick Stein filleted off one once and food critics had it and said it's out of this world, it's sweet, very rare now you find a big gurnard in pot bait. It's still sold as pot bait, all the medium ones. If you get a gurnard now, he's going to the restaurant, he's £4 a kilo and bait is don't a auid. You see any big gurnards now with bait ever, they all go to restaurants."

"So some fish that would be used for bait now is going on the plate. You don't see any big gurnards now with bait ever, they all go to restaurants. So some fish that would be used for bait now is going on the plate. It's like pilchards, nobody wants pilchards, nobody. Change the name to Cornish sardines and catch 40 ton a night, can't sell them fast enough, just changing the name."

Interviewees support the work done by the CGSG to promote spider crab. According to fishermen spider crabs stocks are healthy and abundant. ¹ Most fishermen could catch spider crabs but do not bother as they cannot sell them as there is almost no local demand. Few of them have pre-existing arrangements and are able to sell some of their catches for the Spanish and French market:

"Some boats do have a good market for them but there is not enough of a market for every one. Newquay is a really good port for catching spider crab."

Efforts to promote spiders crabs are welcome and supported by fishermen:

"/ have done а demonstration up the rowing club. Matt was there, Gareth from up the fish shop, he broke open a brown crab and then he broke open a spider crab and honestly he picked out... I give him a medium male spider crab all cooked, Gareth took the top off and he showed them what to do and he picked out all the meat out of where the legs join in, that big honeycomb in the middle. He picked all that out and he had that much meat in the bottom of his tray. I only put it in the local press and word of mouth, I expected about 20 to turn up on a Sunday afternoon, 82 people turned up and they loved it, talking about this and that. Matt did a ten minute marine biology about spider crabs and other fish."

"It turned out a fine afternoon. I cooked three, I give them away. Three people said, I'll have one. I thinks that's sort of what Matt is trying to do, particularly with spider crab. he did, after that meeting they organised a day at the rowing club, for people to come and have a look at spider crab, someone donated lots and someone picked it and talked about it and then they could try and everyone loved it. it was only one meeting but this is a start. And then you could make it a yearly thing or twice a yearly thing and then get the town to look at that because we are the one of biggest spider crab... well-being a shellfish would be port. it good, wouldn't it is the town got in it and Matt is kinda pushing that way."

Despite having so far little effect on changing consumer purchasing habits, fishermen hope that the CGSG will succeed in changing consumer purchasing habits, as it has been done previously for other species.

¹ The CGSG rates spider crab either **3**; "Should probably not be considered entirely sustainable at this time" when caught using pots or **4**; "These fisheries are some way from being sustainable at this time", when caught using gill net. For spider crab caught the MSC Good Fish Guide rating also depends on the fishing gear and the location. When caught in Cornwall, the rating is either **3**, when caught using pot, trap or creel and **4** when fished with net."

6. Lessons learnt from other labelling schemes

Twelve interviews mention other labelling schemes, local or international, as well as fishery-related organisations linked to those schemes (Table 3). They can be part of it or simply know

Name of the scheme or organisation	Number of interviews mentioning at least once the scheme / organisation
Handline Fishermen's Association,	7
MSC - Marine Stewardship Council	6
Cornish Fishermen Producer Organisation	6
Responsible Fishing Scheme	3
MCS - Marine Conservation Society	3
Seafood Cornwall	3
Cornish Management Association	1
Cornwall Sea Fisheries Committee	1

Table 5. Scheme and organisation mentioned during interviews

It is important to understand why other certification schemes have been successful or unsuccessful. Lesson learnt can help drawing path for improvement for the CGSG. It can also help the CGSG finding its "niche":

"One of the problems they're facing is that there's a number of schemes trying to achieve the same results. CEFAS have got a rival scheme and there's several and unless the Cornwall Good Seafood Guide can stand out and make itself distinct and be tangibly beneficial, it's going to struggle to separate itself from the pack and people don't want extra paperwork unless they think there's a benefit to it!"

a. The South West Handline Fishermen's Association

The South West Handline Fishermen's Association was founded in 1987 to "protect that fishery" (mackerel fishery). The bass tagging scheme was set up later (circa 2005). Back then NGOs were campaigning against bass fishing because "there was a lot of cetacean deaths, bycatch deaths with cetaceans washing up on the shore and it was down to the French bass vessels working the Channel and using the nets that were catching bass and dolphins". Price for bass "hit the floor" despite the bass fishery in Cornwall having little to no bycatch:

"..very small boats, single-handed boats, three lines catching anywhere from ten to 60 or 70 bass a day, depending on the season, and every bass is alive and if it's undersize, it goes back alive. There's no by-catch."

The tagging system consists in "numbered tags are inserted in the gills or mouth by the fishermen and should remain in the fish until taken out by the end-user" (South West Handline Fishermen's Association). It was implemented to ensure traceability of the fish caught along the supply chain: "So the Handline Association and Seafood Cornwall came up with a plan to tag our fish and also then to number those tags and have a website to link it to the person that's actually caught the fish as well, so there's traceability right back to the boat and the person that caught it and a little bit of information about each fisherman. So when you bought a bass with a tag on, you could actually go online and see who's caught it and see how sustainable it was." The fishermen pay a small fee to buy the tag (13p per tag). The promotion of the tagging system involved wellknown chef and food businesses. Those events got good press as well:

This promotion campaign helped the tagging system to take off. The scheme was rapidly successful, with an increasing demand for tagged bass and more fishermen joining:

Fifteen years later, over 100 handline fishermen are part of the scheme. Handline caught bass, mackerel and Pollock can now be tagged. Fishermen selling tagged catch retrieve a higher price: "We got Rick Stein on board and did a promotion on it. Went to London and we [...] got grant funding for this. Went to a sushi restaurant in London and got a lot of the press involved for the day, came there for a meal and showed them the tags and really set it off and it was a quiet news week and everybody ran it. So it got out in some form or other in different papers."

"I think it probably took about three years from when we first started to getting really successful and loads more members joined to try and get onto it."

"It took a little bit of getting out there but once it did, it's just gone from strength to strength and now we're seeing the difference between our line caught bass as tagged and ordinary line caught bass. The same method and one tagged and it's about £1/1.50 a kilo more and from our tag line caught bass to any other caught bass, we're talking about £5/6 a kilo. So a really big difference."

All the interviewees mentioning this scheme mention this economic benefit (even those not part of the scheme). The scheme was tailored to answer a specific problem which partly explain its success. The promotion toward the high-end of the seafood supply chain seemed to have been a successful strategy and the scheme managed to make a name for itself in few years. The price premium can be explained by the quality of the fish caught but also the traceability as fishermen reported that handline caught bass or Pollock without a tag are sold at a lower price than the tagged one. This scheme could however not be extended to any fishery as the individual tagging of fish is not an option for fishery catching a huge number of fish very trip (e.g. "350 tons of hake landing in Newlyn every year as opposed to 20/30 tons of line caught bass").

b. The Marine Stewardship Council

Several Cornish fisheries have a MSC certification. Some have been certified but did not renew their certifications. The sardine fishery is MSC certified.

The Sardine fishery

Thirteen fishermen are part of the Cornish Sardine Management Association. Most of the catches are exported and end up in supermarket. Acquiring the MSC certification has been a long and complex process, costing *"thousands of pounds"* to the Cornish Sardines Manage-ment Association. Fishermen also implemented changes in their practices.

"The flaws of the MSC, it's slow to take into account scientific data. Scientific data has to be years and years old and overwhelmingly strong before they'll accept it which is fair enough, that's how they choose to run their... but it means that it's quite inflexible. Fish stocks change rapidly.

We pay a lot for it. It's tens of thousands of pounds it's costing our association. [...] About six or seven years ago. It was quite a tortuous process getting into it and I was quite involved with that. Raising thousands of pounds from the fishermen, doing all the scientific work and we've done a lot to get to this stage. We've changed the way the fishery is managed and it's been a difficult process." 23 Fishermen stick with this certification despites its flaws because it is a marketing advantage. The MSC certification is required by all the processors buying the catches and is key to maintain access to international market.

"The processors now say that if we were to lose it, it would be heavily detrimental to their business. So we have to stick with it."

"The supermarkets recognise MSC, it's international and our clients are international that we're selling the fish to. So that is the industry standard, to some extent. It's not perfect, it's got many flaws and in many ways the fishermen resent it for its flaws but at the moment, that's what we've got to work with [...] For us it's a marketing advantage to go through the MSC."

The Hake fishery

The Cornish hake is also MSC certified. As for the Sardine fishery the process was long (18 months) but fishermen also retrieve benefits from it. MSC certified hake is sold at higher price, incentivizing other fishermen to join:



"The MSC hake now is making a £1/1.50 a kilo more than the other fishery. So it does work, that type of labelling does work and that's a much bigger scheme than the bass tagging scheme [...] So since we got the accreditation and the price has gone up, two, three, four more boats have come into that type of fishing."

To get the MSC certification, fishermen had to change their practices as well, going for *"bigger mesh size"*:

"We increased the mesh sizes, even though legally we didn't have to. So we're using mesh size now which is 5/6/7mm bigger than what we have to use for hake to make it a sustainable fishery."

The direct economic benefit (price increase) encourages other fishermen to join, leading to a shift toward more sustainable practices in the industry:

"That's a prime example of people moving from one to another because of the price increase on that fishery, and the reason for the price increase is they're so sustainable."

It is interesting to note that the hake used to be mainly exported on the Spanish market. When this market collapsed, it impacted hugely the fishery, leading to a number of boats to be decommissioned. Hake has been promoted on the domestic market, with the help of chef, leading to an increase of domestic consumption:

"Spanish market for hake, demand disappear, market collapsed, boat were decommissioned "they couldn't afford to carry on anymore. The domestic market wasn't very good, the price was low, the fish was there and they had to change to different things. The decommission scheme came along and I bet 25 boats were lost" [...] the ones that stayed in it pushed through and we did a lot of promotion and getting chefs on board because it is delicious, it really is quite a nice fish and we've got to the stage now where we are and instead of 90% of the hake being exported, 90% of the hake is being eaten here."

The Mackerel fishery

The story is a different for the mackerel fishery. The South West Handline Fishermen's Association pushed to get the mackerel fishery accredited because it is a sustainable fishery: it has "a quota separate from any other quota [...] and it's sustainable because it's caught with hooks". The fishery managed to get funding to pay for the set up (£15,000). It took 2 years to get the MSC certification: "we all put into it and then within two years, we came out".

The MSC certification did not lead to price increase for the mackerel ("The prices didn't go up or anything like"). The audit needed to renew the certification one year later costed £8,000 meaning that "people had to pay £380 for continued membership". The Association "decided not to renew it in the end because handline mackerel's got quite a good name anyway and it wasn't worth the cost to renew".

The mackerel fishery is a good illustration of how the same scheme does not fit every fishery.

"It's handline caught, it's a low carbon footprint, it's no bycatch. It was MSC perfect and the cost involved for them to re-certify that afterwards, we couldn't afford to do it. [...]So really the MSC is the perfect thing, it's just too expensive for many smaller sustainable fisheries to be able to afford to do and keep on top of it."

"We decided not to renew it in the end because handline mackerel's got quite a good name anyway and it wasn't worth the cost to renew."



c. The Responsible Fishing Scheme

The Responsible Fishing Scheme "is a third-party certification scheme developed by industry to recognise vessels with high standards of crew welfare and responsible catching practices".

lt mentioned was by three fishermen. The scheme was having a global approach of the fishing activity, from the organisation on board to the catches were managed. way Approved boats were given tallies with the boat name so that they could be identified as certified within this scheme:

"They would come around and look at you boat and make sure that you're doing everything clean and tidy and safely and asked how you looked after your catch and did you use ice, did you clean in a certain ways. assessed on how our fish was being caught and sent to market and then if we passed that we had labels with our boat name, we had a little sign to say that we are part of this scheme, that the fish has been caught really safely and sustainably and cleanly and all your waste to get dealt with properly and that sort of thing.'

Fishermen had to pay to be part of it (although "*it wasn't very expensive*"). The scheme promised fishermen preferred access to the market:

"We joined it to start with and they said if you're not in it, the processors won't buy it, the supermarkets won't have the fish unless you're in it."

The certification seemed to be renewed every five years. Three main issues have been raised by the interviewees. First the cost of the certification seems to have increased. Second, fishermen part of the scheme did not get preferred access to some processors:

"Then after five years, it run out and then they come back again and said if you want to redo it and it was going to be like a grand and we said for a small boat, we're not doing it and we hadn't seen any of the processors... there were some boats here did it and some didn't and the ones who didn't, their fish was being sold exactly the same as ours."

"Yes, we might have done but we didn't see any and the boats that weren't in it, their fish wasn't getting left unsold and ours were selling because we were in it. We didn't see any difference at all and I think when we first joined, it was a couple of hundred quid and we thought yes, it's worth it. To a small boat, a thousand pound is a lot of money and so we didn't renew it, we came out of it."

Lastly, no one seems to really know what is happening with this scheme, if it still exists:

"I did all that and it sort of fallen away now. I don't know if they still exist".

Feedback on existing schemes demonstrate that there is no "one fits all" solution. Some fisheries manage to retrieve economic benefits from the MSC despite the cost of the certification whereas others do not. The MSC certification is also more suited for fisheries targeting one species only:

"And you can't really join the MSC. It works on species. So the hake netters that catch hake are in it through catching hake but we don't really catch enough of any species that are in it to warrant being in it."

The Responsible Fishing Scheme managed to get fishermen on board with their scheme but did not succeed in securing privileged access to the market for its members, losing their support. The South West Handline Fishermen's Association managed to implement a successful scheme for Bass, Pollock and Mackerel handline caught. The tagging scheme was implemented in response to a specific issue faced by the bass fishery. The scheme was designed to address a specific issue: the traceability of the sustainably caught bass. The scheme succeeded in securing a price premium for the tagged catch. However this scheme cannot be applied to any fishery as it requires tagging every fish caught.

It is worth noting that Cornish fishery association successfully led several promotion campaigns to increase domestic consumption of Cornish-caught fish species.

7. Possible path for improvement

a. Suggestions made by interviewees

Four main improvement suggestions by fishermen during the were made interviews. This section is directly based feedback received the by the on fishermen and we do not aim to discuss deeply their feasibility or relevance. We do provide additional information or comments when possible.

i) Increase promotion of the scheme

The promotion work done by the CGSG is widely recognised but interviewees suggested two possible directions for increased promotion of the scheme. It was first suggested to *"link catches to boats"*, as it is the case in the handline tagging system. This system would be rather complicated to implement. It would require a lot more management from the CWT, the fishermen and primary buyers. One option could be to add a CGSG stamp on the paper tallies used by fishermen to label their boxes.

The second suggestion is to "do a bit more on that. Both Facebook and Instagram are massive media sources to get stuff out". Four interviewees mentioned the increasing use of social media, and especially Instagram, as a medium to reach out to the general public. Interviewees know fishermen, fishmongers food and Instagram. businesses using Some fishermen use twitter and Instagram to sell their catches or simply to advertise about their job. One interview suggested to get "a bit more TV coverage".

ii)) Target wholesaler and food businesses

Interviewees stress the importance of food businesses (including having fishmongers) and a "middleman" in the scheme. Fishermen are meeting the requirement of their primary buyer of the catches (most of the time a middleman, wholesaler. processor, fish market) in terms of label and certification.



They are a key actor as they make the onshore work easier for fishermen. Interviewees Newguay, met in Mevagissey and Looe have their catches collected by their buyers or sell locally, making onshore work very easy. When the supply chain is organised in this way (the buyer are in charge of collecting the catches), the fishermen are interested in labelling schemes and certification only if their primary buyers require it. Fishermen are not willing to go above and beyond on the certification side, u nless t hey c an see actual benefits, as they are already busy. They prioritise landing quality catches to build and maintain their reputation:

"I only do the MSC because Falfish tell me that it's important to their business It's up to them and they don't release their clients' details so I don't speak directly to the clients. It's very economically sensitive, so it's purely up to the processors to decide what the best angle is."

They advise to target those primary buyers as they set the standards for the seafood they purchase:

"The people doing stuff on behalf of you are a middleman and they make our lives so much easier, that's why we use them. They're the ones, essentially, that you want to marry the scheme to. There's load of these companies but we can't really survive without them."

"The challenge is: can the Cornwall Good Seafood Guide be relevant to a company like Falfish [...] they might speak to you but there's a whole load of smaller companies. Falfish is massive. There's a whole load of smaller companies that might be more interested." Food businesses, as end sellers, are in a good position to promote sustainably and locally caught seafood, by displaying the CGSG logo and label, and by providing information and advice. The CGSG could also strengthen links between fishermen and food businesses:

"That makes the restaurants the priority because а lot of the supermarket supply chain doesn't really make that a priority but prestigious restaurants are very proud of sourcing local food and that's the link. You want to link the fishermen and the good fish restaurants together with your guide and that would be the angle I would take."

This idea is somewhat in contradiction with the prevailing opinion that the best way to get fishermen on board is by getting primary buyers first. However, this proposition can be understood in two ways.



First, demand in labelled seafood can increase the number of food businesses that are part of the scheme. This could then increase the interest of primary buyers for the CGSG label. Second, interviewees suggest that the CGSG should not necessarily try to be a certification scheme (as the MSC, and this is actually not the aim of the CGSG) but rather create something more unique around a community and a branding:

"What you want to target is the restaurants, they're all about short supply chains, local food and you want to be targeting the fish that ends up on the restaurant plates locally and you want to help develop the branding of that."

iii) Target specific fisheries and landing areas

Being time efficient in the promotion of the scheme implies to target the fishermen that are most likely to be interested by the scheme. Fisheries already part of a certification scheme and doing no (or very little) direct sales are not the ones to be prioritised:

"Exactly. Sardines there's almost no direct sales to the public, whereas other species there are, like maybe lobsters or something, that if you wanted to go down that avenue, then maybe that would be better but with sardines, it all goes to these three processors and then it goes from there. So unless they ascribe to your scheme, which I don't think they are, then it's pointless."

Interviewees suggest targeting fisheries that are not part of an existing labelling scheme and trying to establish relationships with potential buyers or to extend their customer base:

"But there's a whole load of other fisheries, the majority of other fisheries aren't MSC certified and they might welcome another scheme that maybe could give them more legitimacy in the eyes of their customers but I would avoid sardine, hake and sprats for starters, they're not your target at all."

A good place to start might be a landing site where wholesalers and processors are not organising catches to be picked up. For instance, fishermen in St Ives have to drive to Newlyn to sell their catch. In this case the CGSG could be an opportunity to increase local sales, reducing the hassle of transporting their catches.

iv) Adapt the rating system to the state of fish stocks in Cornwall

One interviewee suggested joining forces with existing organisations in Cornwall to enhance the CGSG and "*push it on local market*". The idea is to team up with Seafood Cornwall, an organisation created by the CFPO in 2004 to "to highlight areas of best practice in terms of quality, environmental sustainability and marketing and assisting in areas where there was room for improvement". The aim is to get a more Cornwall-relevant rating system. Seafood Cornwall. The results would then be transmitted to the CGSG who would be able to choose whether the rating system needs to be updated or not. The two organisations would remain independent:

"This is where I think Seafood Cornwall can come in and they can accreditate a fishery. So they could say hang on a minute, we think this fishery's quite sustainable. We'll assess it and we will maybe accreditate and then the Cornwall Seafood Guide can then add that to the list [...] Yes, and I think that's where Seafood Cornwall might help on that sort of thing because it could have its own as-sessments of different fisheries and maybe promote them or label them as sustainable [...] Corn-wall Seafood Guide would be using Seafood Cornwall, for instance, rather than... Seafood Cornwall would do all the legwork, wouldn't they, making sure that a fishery is sustainable [...] So I suppose they'd still be independent of each other and if, for instance, the Cornwall Good Seafood Guide didn't want to accept Seafood Cornwall's decision on a certain fishery species, it doesn't have to."

The goal is to join forces to increase the awareness of the CGSG. It is also a way to address criticism raised by interviewees on the relevance of the rating system. However this solution should be considered carefully as teaming up with a producer organisation could cast a shadow on the CWT and the CGSG credibility and impartiality. It could also undermine the environmental credentials of the scheme.



b. Suggestions derived from the analysis of the qualitative data

This section builds on the data collected through the interviews and analysed with Sonal to suggest possible improvement of the scheme.

First, the CGSG could benefit from a more institutionalised frame. Some fishermen are not sure whether they are part of the scheme or not or are part of the scheme but consider themselves as *"being more outside"* of it.

There is also some confusion regarding the aim of the scheme, some fishermen considering the CGSG is willing to compete with other certification schemes. The CGSG does not aim at being a "certification scheme as such as that involves a lot of paperwork and checking etc" but aim at "provid[ing] info[rmation] so the public can make better informed choices" (Matt Slater, personal communication). Fishermen are willing to do their part in promoting sustainable seafood. Having fishermen sign a form when they join the scheme could help build a stronger association. The form should be very short but clearly include the goal of the scheme. Fishermen could also be given a certificate (as the one given to businesses) and a CGSG stamp (or stickers) they can use to easily label their box of catches.

When joining the scheme, fishermen should be asked their preferred way of being contacted (email, text messages, mail) as well as any social media handle (Twitter, Instagram, Facebook). It is often hard to get hold of the fishermen as they are very busy. There is no one-fits-all way to get in touch with them: *"Email with me now really but isn't true for every one and post still something and often with email it's so easy to read and to forget so you probably a monthly thing going on or an update so it keeps in your eyes". Knowing how to get in touch with them will help send updates on the scheme.*

Interviewees are largely supporting promotion events targeting the general public and the CGSG could systematise a yearly event (such as the spider crab festival – with maybe an attempt to rename the spider crab!)²

The event could involve some fishermen, some food businesses with the aim to make the general public of Cornish fisheries, fishing techniques and above all to promote less known species.

Interviewees are largely unaware of the extent of the scheme. They do not know the other members of the scheme (food businesses, primary buyers and even fishermen). The CGSG could enhance its by supporting impact awareness and knowledge of its members. This could be done by implementing a newsletter 3 or 4 times a year. The newsletter could focus on newcomers; include an updated list of the businesses part of the scheme; report on anv event attended bv and/or organised by the CGSG management team.

Organising in-person events could help create a community around the CGSG. Even though harder to organise, they could help the different member to meet and discuss. Such meeting could also be an opportunity for the CWT to collect feedback on the CGSG. In a more longterm perspective, the CGSG could even aim at creating a "sustainable, Cornish seafood" branding to clearly distinguish from existing certification schemes.

The CGSG could target Cornish fishing organisations to advertise the scheme (the CFPO, Seafood Cornwall, the South West Handline Fishermen's Association...). The first advantage would be to benefit from a trickledown effect if those organisations advertise the CGSG to their respective members.

Establishing a partnership with a Cornish organisation could support the creation of a hub around Cornish seafood but this could also impact the credentials of the CGSG. Going further and teaming up with producer organisations to develop a local seafood quide could the third-party impact the CGSG and the position of soundness of its rating system.

² Since the finalisation of this report the Cornish Fish Producers Organisation (CFPO) has launch an initiative to rename spider crab "Cornish King crab"

IV Conclusion

This part of the project was designed to answer four questions (see Introduction section). Our research show that the main benefits of the CGSG (Ouestion i. What are the main benefits to fishermen from participating in local eco-labelling schemes?) are related to the work done by the CWT around seafood consumptions habits and efforts developed to change those patterns (Section III.5 and Table 4.). Fishermen participating in the scheme recognise the effort developed by the CWT to encourage people to eat more local seafood and a wider variety of seafood. The fishermen participating in the CGSG are very supportive of the scheme and their motivation can be described as "altruistic". They are not only seeking personal benefits but trying to work toward a better representation of the fishing community and promoting sustainability (Section III.4.b).

It is harder to pin down economic benefits (question ii. "Does eco-labelled seafood command economic benefits such as price premium?"). One fisherman mentioned a price increase for his Pollock. There are possible explanations for this absence of economic benefits. First some fishermen have a longterm relationship with their buyer, grounded on the quality of the products. In such case, the CGSG might have limited effect at this stage of the supply chain. Second, price levels are linked to a number of factors and it is hard to untangle them: prices can be influenced by the quality of the products, by the demand, by production costs, the buyers type (e.g. fish market or wholesaler). Third, fishermen are not chasing higher prices, as they are happy with their selling price and they all manage to sell their catches easily. Some fishermen are more interested in seeing consumption habits that would allow them to catch more species.

Fishermen interviewed did not mention changes in practices due to joining the CGSG (Question iii. "Has membership of ecolabelling schemes led to changes in practices towards those that could improve fishery sustainability?"). This is coherent with the way the CWT is engaging with fishermen: the CWT approaches fishermen who already have sustainable fishing practices. Fishermen who are part of MSC certification mentioned having to implement changes in their fishing practices as part of the application process.

Regarding Question iv. ("What obstacles are there to participating in eco-labelling schemes? What are the preconceptions of those who are not members of existing schemes?"), our analysis show that fishermen tend to be supportive of labelling schemes but there is no "one size fits all" solution. Using the information collected on the CGSG and the other schemes mentioned by the fishermen (Section III.6) we can highlight three conditions for a labelling scheme to fit well to a given fishery:

- The benefits retrieved by the fishermen must exceed the burden of being part of it. Fishermen try to maximise their fishing time and limit onshore work. In the case of the CGSG, the burden of being part of the scheme is very limited;
- 2. A minimum degree of institutionalisation is needed. One downside of the CGSG is that the "frame" of the scheme (who is in, who is not, what are the goals of the scheme...) is unclear. The CGSG could grow stronger and develop a community by developing conventions to improve this (see recommendation in section III.7);
- 3. The scheme needs to meet the market demand (primary buyers and/or final market). As mentioned previously, fishermen exporting all their catch on the international market are little interested in a local scheme that is not recognised by their buyers. Fishermen selling to domestic or local markets are more likely to be interested in such schemes.

The CGSG is widely known by fishermen. The scheme would be better for having clear objectives and make sure fishermen do not confuse the CGSG with certification schemes such as the MSC. Interviewees are largely supportive of the scheme. Fishermen participating in the scheme recognise the work done by the CGSG to promote seafood to the wider public. They are happy to be part of this promotion initiative.

The CGSG could be strengthened with easily implanted actions:

- A more formal framework for fishermen to be part of the scheme, by making them sign a form when joining
- Increase the visibility of CGSG labelled catch by implementing stamp/ stickers that fishermen can use to label their boxes if they want to
- Increase connection and networking opportunities between members of the CGSG
- Increase internal communication by setting up a newsletter
- Increase external communication by using social media more extensively
- Increase promotion of the CGSG toward fishermen by building stronger relationships with Cornish fishing organisations

The CGSG has its own specificities compared to other existing schemes in Cornwall and is in a good position to grow a community of fishermen, buyers, and food businesses to support its main objective: helping the public to make better informed choices.

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