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It matters who fishes

The EU fishing fleet has become too "efficient". Facilitated and encouraged by EU policy, capacity enhancements and concentration in the sector have led to a relatively small group of highly industrialised boats which are responsible for the bulk of overfishing and are threatening the livelihoods of the majority of smaller fishers.¹ However, for the non-fishers among us, figuring out how to best support small scale fishing communities, and encourage sustainable fishing practices can be difficult. Industrial fishing companies and fish retailers know that consumers are worried about the state of our oceans and they market to that fear. This kind of green- and blue- washing creates a fog of buzzwords and supposedly sustainable, local, and family-owned options which can be difficult to differentiate from real alternatives.

Scale is not the only factor that distinguishes small-scale and artisanal fishing from large-scale industrial fleets. The different structure of small-scale fishing enterprises also shapes their interests and concerns. Typically fishing trips by small-scale fishers don't last more than a day and are limited in distance from their home port. Owners of boats also operate their vessels. Thus, the quality of

employment at sea and the conditions of local fish stocks - today and into the future - are not abstract concerns for small-scale fishers, but matters of livelihood, culture and family wellbeing. Good business practices in this context are about more than efficiently removing fish from the ocean as guickly as possible. For small-scale fishers, fishing well is about preserving and protecting local environments, livelihoods, and communities.

In the EU small-scale fishers represent some 82% of active fishing vessels (approx. 70,400 vessels), and generate around 14% of the revenue in the sector.² Despite the fact that the majority of fishers in the EU are dedicated to small-scale and artisanal fishing, the vast majority of overfishing can be attributed to a small minority of very large boats, which also capture most of the profit in the sector.³ Rather than vilifying the entire fishing sector, this brief aims to show that who fishes matters for the future of marine life. It unpacks some of the key differences among fishers and types of fishing, and provides guidance on how to support fishers taking steps towards the positive transformation of the fisheries sector.4

What: Community Supported Fisheries (CSF)

The ways that small-scale and artisanal fishers sell their fish, the prices they get and the relationships with their customers and communities that those transactions facilitate offer opportunities for encouraging transformation in the fishing sector. The term Community Supported Fisheries (CSFs) is increasingly being used to refer to a range of efforts to restructure or restore relationships between fishers and the broader community they help to feed. In this brief we take a broad view of the concept, suggesting that CSF can be seen as an umbrella under which many different types of activities and terms fit, and which will look different in different places. The most typical activities understood as CSFs are focused on re-shaping the relationships between fishers and their communities through different ways of selling fish like box schemes, direct sales or labeling schemes. However, the aim of many CSFs is not just to market their products differently but to provide a way of building a different system of economic, social and ecological relations in and with the fishing sector. Taking the idea of communities supporting fisheries as the starting point, a wide range of activities (from research to education, to cultural and historical celebration to name a few) could be seen as contributing to such transformation. This short brief unpacks the logic of CSFs that focus on selling fish differently, and provides insight for non-fishers on how to navigate these alternatives. It must be said that in much of the Global North the overall levels of seafood consumption are extremely high, thus reducing the quantity that we eat is in many cases an important piece of sustainability. However, for the special moments when we do eat fish, the following sections aim to provide some insights into the who, what, why and how of these CSFs.

The term CSF reflects a similarity to the perhaps more widely-known idea of Community Supported Agriculture (CSA). CSAs also aim to reshape relationships between producers and consumers of food, often by organising production around a membership structure where local people pay upfront at the beginning of the growing season and participate in different ways in the process of growing food. "By creating local systems of growing and distributing food, CSA members are empowered by knowing where their food comes from and who benefits from their purchases."5 Both CSAs and CSFs often establish direct sales and sometimes a commitment to purchase via those channels, and set prices or upfront payments which

cut out "middlemen" in the value chain, where much of the profits are otherwise captured. "Shorter channels for seafood are relevant not only to balance market power between a dispersed producing sector and oligopsonistic retailers, but also because CSFs often include sustainable fishing practices ([attention to/reduction of] resource over-exploitation, habitat destruction, energy, food miles, etc.)."6

Core values

Because CSF is an umbrella concept that is constantly evolving, rather than a rigid definition, it is helpful to identify a set of core values which tie this broad range of activities together. The Local Catch Network in North America stands out as one of the best developed initiatives to build and support CSFs across that continent. The network has given a space and language to the work of many fishers, consumers and organisers on the ground. Their guiding principles have been developed collectively and refined over many years of work and offer a helpful overview of what we mean when we talk about community supported fisheries. In brief the key ideas are:7

- 1 Community-based fisheries enhance the social, ecological, and cultural fabric of our coastal communities.
- **2 Fair Access** to the ocean commons for fishers and future generations.
- 3 Paying a **fair price** to fishers, processors, and shore-side businesses to support local economies and increases the quality of life for everyone whose hands touch our fish.
- 4 Eating with the ecosystem means matching our seafood consumption to the rhythms of nature and place.
- 5 Traceable and simple supply chains promote trust and more direct relationships between fishers, the public, consumers, retailers, wholesalers, managers and chefs.
- **6 Catch and Handle with Honour:** Strict quality control and safe handling practices, along the entire supply chain, to ensure that we honour the fish, its life, and its role in our food system.
- 7 Community and Ecosystem Based Fisheries Management should be bottom-up, ecosystem-based, and foster collaboration between fishermen, scientists, policy makers, and the broader public.
- **8 Honouring the Ocean:** By eating seafood and knowing when, how, and by whom a fish was caught, the public is taking the health of wild fisheries, coastal communities and the ocean into its own hands.
- **9 Creativity and Collaboration:** Building a better seafood system requires innovation, creativity, and thinking outside the box spread through a network of diverse actors working together and aligning around shared values.

Like many agendas for social transformation, these core principles can be understood as an aspirational guide that helps map the direction of change. Many CSFs focus on some of these areas more than others, and strengthening these principles throughout the small-scale fisheries sector is an ongoing process that resonates with much of the work already underway in Europe to develop different

types of CSFs. In the next sections we draw on examples from the European context to explore the real-life impacts, objectives and guestions to consider when we think about how to bring these core principles to life when buying and selling seafood as a vehicle for transformation in EU fisheries.

Why: CSF impacts and objectives

Redistributing economic wealth through more direct sales

CSFs and CSAs can both be understood as efforts to create alternative supply channels that redistribute wealth and power. Fish auctions, the main mechanism by which fish are sold outside CSFs, often drive prices down and can shift power to intermediaries and large supermarket retailers. In the face of policy and market incentives to scale up and capture more and more fish, the idea behind CSFs is to expand fishers' options for direct sales, where quality and proximity can be incentivised over quantity. In many direct selling contexts the price is fixed, which gives security to the fishers (in contrast to fish auctions which can drive down prices and/or be extremely volatile). Low prices force fishers to go to sea more in order to make ends meet, and aim for higher and higher volume, which can contribute to overfishing. By getting fish for a fair price, directly from the fisher, you allow the fisher to go to sea less, but earn more. By removing intermediaries the price to consumers remains accessible. And the cost to the environment is diminished.

The reasons for low prices in fish auctions vary widely. Perhaps there is high quantity of a certain species landed at the same time in the same harbour, or no perceived consumer demand for a certain species, etc. Whatever the explanation, the impact on fishers is that they can't be sure how much they will earn so they are incentivised to maximise their catch whenever possible. For consumers, intermediaries are deciding what fish preferences are based on market trends, and taking a cut of the purchase price.

For example, in France, in certain seasons, spider crab prices paid to fishers can reach as low as 30 cents per kilo. For those fishers who are specialised in targeting spider crabs with a net or a trap, the consequences of this decrease can be terrible. However, consumers are used to paying more than 5 euros per kilo for spider crabs, and may see very little reduction in this price even as the amount paid to fishers plummets. Without increasing the price paid, direct selling could drastically change the income of a fisher who no longer loses a portion to intermediaries. Direct selling can also help encourage more diversification of fish species sold. Fishers can offer attractive prices for less common species of fish which may taste similar to more popular ones (for example this is the case with the Drum fish, which is similar to the much more prized Meager, both of which are found along the Atlantic coast of Europe). While this might provide opportunities for consumers on a tighter budget to enjoy local fish, if sold in the fish auction it is unlikely to be purchased by intermediaries because of its perceived unpopularity, leaving the fisher with unsold fish.

Incentivising quality and sustainability over quantity and profit

As described above, direct sales can help create incentives for fishers to fish less and focus on quality and sustainability. CSFs can also be a way for fishers already engaging in low ecological impact and high quality fishing to find support among fish eaters also concerned about sustainability. CSFs are particularly well-suited to small scale and artisanal fishers who fish small quantities, closer to shore, typically consume less fuel and produce fewer CO₂ emissions.8 Building closer relations with fishers who are concerned with the health of the ocean can also be a way for fish eaters to better understand the state of the oceans, fish stocks, and the pressures fishers face.



Image 1: Fishers diving for scallops in the Baie of Saint-Brieuc, France. Photo: Pleine Mer

These are also the fishers who benefit most from broader food system transformation. For example, the runoff of large-scale industrial agriculture impacts waterways which can contaminate bays and coastal areas. These shared ecological threats between small-scale fishers and small-scale farmers illustrate the importance and value of coordinating CSFs and CSAs.

A good example of successful coordination between CSFs and CSAs can be found on the island of Yeu. In the 1950s, the island's port of Joinville was the largest tuna harbour in France. Decades later, environmental regulations were passed to limit fishing, greatly impacting the small-scale fishers of Yeu. A group of local fishers decided to build an alternative: if they needed to fish less, they would have to get a better price from every catch. This is how the Yeu Island CSF was created in 2010. The structure they built allows fishers to deliver fish boxes to more than 15 CSAs on the mainland. Each CSA has a contract with the

fishers, fish is paid in advance, and in return fishers are committed to sustainable fishing practices.

This link between CSF and CSA works well in this case, because fishers have organised collectively and share the logistical burden (which can be significant) among themselves. In other areas, fishers also work with CSAs, but in a less organised way. This can make it difficult for them to deliver the fish at the right time for the consumers, and for this reason, collaborations between CSA and individual fishers don't always last. Other ways of linking up with CSAs may work better for individual fishers. These often include less consistent mechanisms where the fisher provides fish (without pre-payment) from time to time, on the day consumers get their product from the CSA. This kind of relationship makes the logistics easier, but gives less priority to establishing prices in advance and encouraging long term commitment to the exchange between the fisher and the consumer.

Shifting gender and labour relations, building community

Direct sales also ensure greater transparency about where the fish you buy is coming from, and who is supported by your purchase. These relations can be a way of building community, not only among fishers who may organise collectively as in the case of Yeu Island described above. Direct sales can also encourage, "communication with outside individuals and organisations, facilitating in the end the mobilisation of "social capital" to respond to local problems. In return, consumers commit to share the production risk (and sometimes the marketing costs) due to the irreducible hazard of fishing."9

However, "CSF members compared to CSA members have to cope with more limitations to build a face-toface community between fishers and fish eaters due to the peculiar nature of wild-caught products and fishing techniques."10 While CSAs often provide opportunities for members to visit or help out on farms, or harvest some of their own vegetables, this is much less feasible for CSFs. Direct selling does not automatically build community, and even if a sense of community emerges

it is not necessarily one guided by socially transformative principles. However, CSFs can be seen as a vehicle to help deliberately construct a particular type of relations. CSFs can be intentionally framed from the outset as a way to support low impact fishing which values sustainable ecological relations with the marine environment. The degree to which commitment, trust and shared risk are prioritised between fishers and the community shapes the kind of economic relations that can be built.

The way different kinds of work in the fishing sector is recognised and valued is another important component of the potential of CSFs to reshape social relations. For example, the role of women in fisheries in Europe is often invisibilised by the focus on the - largely male - part of the labour force which goes to sea. However, given the overwhelming presence of women in fisheries in the management of sales, CSFs offer a way to place value on the central role of coordinating direct sales, and to encourage and recognise the community-building dimension of the work.

How: A compass for navigating the transition towards CSF

In an ideal world, everyone would have access to a well-functioning CSF built on trusting relationships and shared commitment to ecological sustainability. However, there is much work ahead before we get there. And in the process of building this future, it is important to deepen our understanding of what quality and sustainable seafood is, and how to identify the kinds of fishing practices that need support. Fisheries are complex, sometimes even contradictory systems of social and ecological

relations. Black and white standards of good or bad often over-simplify the current reality and make it more difficult to chart a path for transitioning towards a more sustainable relationship between humans and the sea. In an effort to provide clear yet nuanced advice for people who want to contribute to this transition, below is a short list of topics and questions which can serve as a compass for consumers to navigate the fishing sector and contribute to strengthening CSFs.

How big is the boat?

The terms small-scale and artisanal fishing are often used to suggest that smaller boats mean more sustainable fishing practices. Indeed, supertrawlers measuring over 80m with trawl nets that can reach up to 600 metres can have the capacity to process up to 400 tons of fish a day and store up to 7000 tons. This is not in the same league as the landings of vessels below 12m and with non-towed gears that have daily averages of 104 kgs.¹¹ Certainly, the size of the boat is important to consider, but because this is a simple and quantifiable measure, it is sometimes used as a stand-in for a whole host of crucial questions

that are about more than the length of the ship. The EU defines small-scale fishers as operating boats up to 12m. In some parts of Europe, artisanal is understood to mean a boat which is operated by its owner. In terms of the relationship between sustainability and size, it's also important to keep in mind that depending on the fishing grounds and the marine ecosystem in each place, a 16 meter liner can have less ecological impact than a 10 meter trawler. Meanwhile, a 14 meter boat using nets can have more impact than an 18 meter trawler, etc.



Image 2: Langoustine trawler in Le Guivinec, France. Some langoustines will be sold on the deck, directly to consumers. Photo: Pleine Mer

Instead of getting mired in the limitations of using boat size as the primary measure of scale and sustainability, we suggest thinking of these issues as multifaceted and defined not only the length of the boat, but also the gear used, distance and length of fishing trips, model of ownership and the labour conditions. When taken together and with an appreciation for the complexity and contradiction we may find in the real world, these criteria can help guide our decisions about how communities can support fisheries.

How do they fish? Gear and practices

In general "passive gear" – gear which is left in place for some period of time, then removed - has the lowest impact on the environment. Thus many CSFs encourage lines, traps, nets or dive-caught seafood. However, associating towed gear like trawls with large scale fishing and passive gear with small-scale fisheries isn't always accurate. For example, there are many types of towed gear, some of which have historically been used by small scale fishers.

"Beach seines are such a case, as these gears have long been used in many areas of Europe by smallscale fishers. In Spain, for instance, we can find references to this gear that date back to the fifteenth century at least. Equally, purse seines are regarded as towed gear, but when used in boats under 12 metres, the fishery would be better described as small-scale. No less relevant are small shellfish dredgers -frequently a seasonal activity-, also excluded in the EU's definition, which may comprise hundreds of boats in some countries." 12

Lines and nets, while classified as passive gear, can also have big impacts on the marine biodiversity, depending on their scale and how they are used. Some boats work with nets that extend for 100 km in the water, and the by-catch rate of some nets can be similar to trawls. Longlines are often criticised for their bycatch of birds and turtles, but this kind of bycatch doesn't happen with other kinds of lines or fishing rods. Therefore, it's important for the consumer to stay critical, ask questions, and compare information in order to understand the many dimensions of sustainability of the fish we eat.

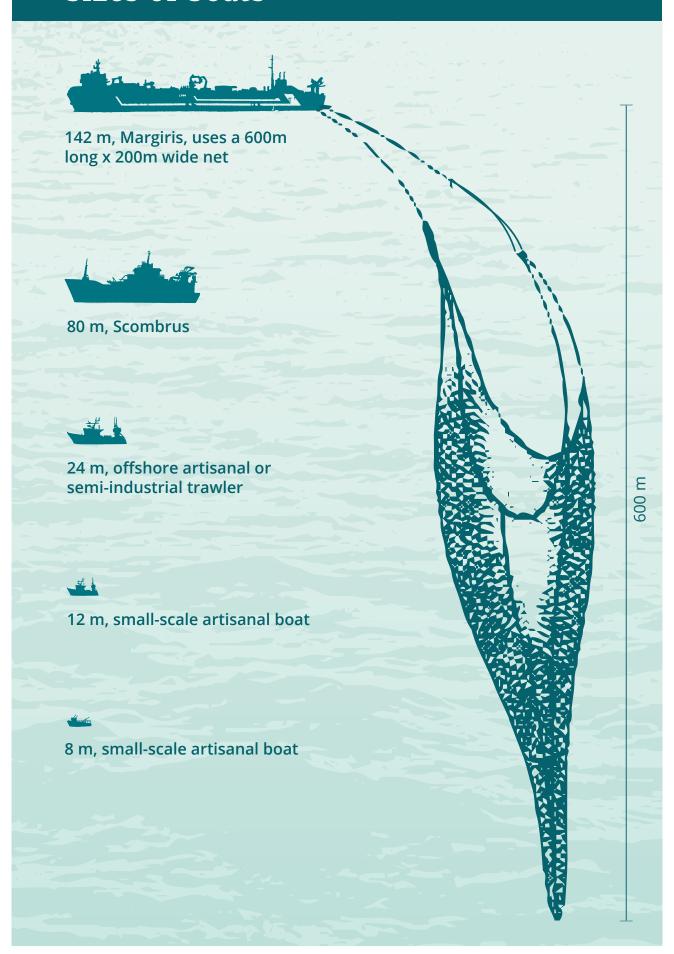
It is also important to consider the impact of a particular method of fishing, not just on the target species, but on the entire ecosystem. The case of scallop fishing by dredge illustrates some of the nuances. Scallop fishing in Saint Brieuc Bay, Brittany, is often held up as an example of excellent management of the resource. A license is

required and even with that fishing is only allowed from October to March, for just 45 minutes, two days a week. During activity a police helicopter is present to make sure there is no illegal or fraudulent practices. Thanks to this management, the stocks of scallops in this bay are doing really well.

However, to see the full picture we also need to understand this kind of management in relation to its impacts on labour and the ecosystem more broadly. First, due to the limited time allowed for fishing, the scallop fishery experiences the highest number of accidents of any French fishery. Environmental sustainability doesn't always mean safe working conditions for the fishers. Also, scallops are fished with dredges that dig up scallops with metal teeth, and are known to have impacts on the sea floor. Most fishers have been taught this technique for generations and fisheries institutions have encouraged its use. The ecological consequences reflect a systemic problem, not the bad practices of individual fishers. Indeed, the scallop stock, when seen in isolation (a "monospecific" approach) is well managed, but a "socio-ecosystemic" approach reveals more complexity.

Consumers should also know that there is another technique to catch scallops: diving. In this case, fishers pick each shell by hand, with no direct impacts on the environment, except on the specific scallop they harvest. The use of this technique is limited as fishers using dredges are prioritised when distributing licenses, again revealing the systemic nature of the issue. The price of dredged scallops is much lower than dive-caught. For this reason, direct sales via online platforms are especially important for dive-caught scallop fishers since the local market is often saturated with dredged scallops, at a price that doesn't sustain the activity of divers. Though higher prices can exclude some buyers, selling online directly¹³ to consumers in inland cities helps diver fishers build a support base and awareness about the complexity of scallop fishing beyond the local coastal market.

Sizes of boats



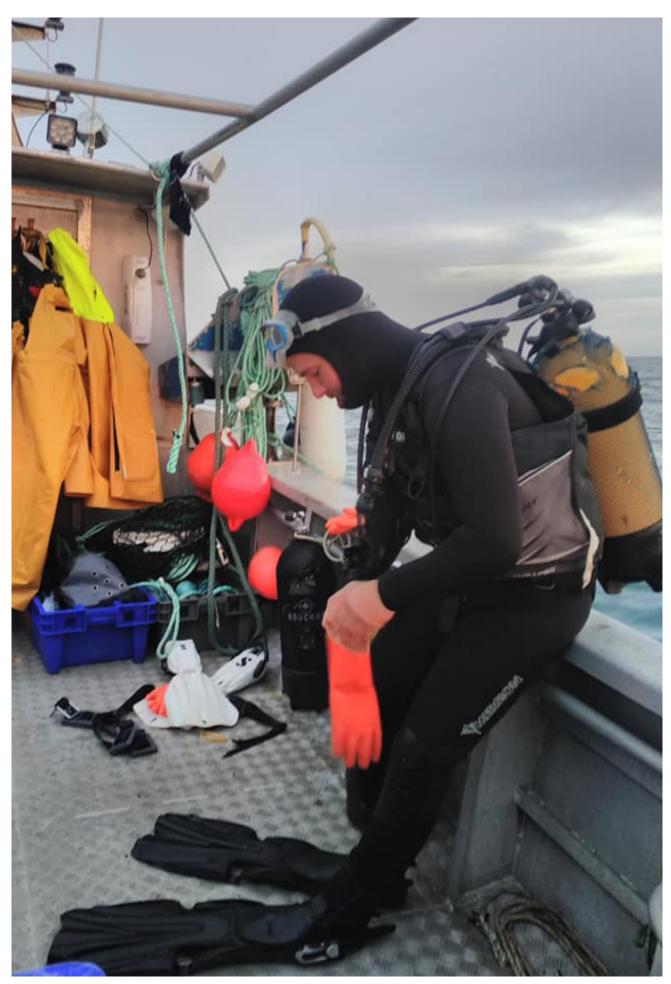


Image 3: Fishers diving for scallops in the Baie of Saint-Brieuc, France. Photo: Pleine Mer

When do they fish? Seasons, ecology, stocks

Direct sales with fishers who work close to the shore reveal the seasonality of different types of fish. Just like with agriculture, reducing dependence on global shipping and multinational food retail chains means eating with the seasons. However, in the fisheries sector this can be more complex than in farming. The line fishers from Brittany, France have brought a lot of attention to this issue in the seabass fishery. They make a point to stop catching seabass in the winter during their reproduction period. This effort has helped raise awareness about the importance of seasonality and eating locally available fish.

However, seasonality must be considered together with the gear used and the environmental context in which reproduction happens. Typically fish lay millions of eggs, of which only 0.001% (1 out of 10,000) will survive. This period of reproduction is often when they come closer to shore and are easier to catch. Selective fishing methods during this period do not significantly impact the stock since there is such a high reproduction rate per fish. What does negatively affect fish stocks, however is when non-selective methods like pelagic trawlers take advantage of the easy fishing during reproductive periods and capture entire schools of fish. Yet another crucial factor in this period is the general ecological conditions in the place where fish reproduce, highlighting again the interconnection between small scale fishers' livelihoods and broader environmental and food system struggles.

Purchasing what is caught locally can also help to diversify the range of fish people eat. In the EU, in 2017 just 5 kinds of fish (tuna, cod, salmon, Alaska pollock and shrimps) made up 44% of total fish consumption.¹⁴ This limited palate puts additional stress on particular fish stocks, encourages importation of fish, and incentivises harmful aquaculture practices to meet demand. One strategy to counter this trend is to increase the variety of fish we eat. Often under-appreciated or less well-known species can be cheaper and delicious, while capturing them allows other stocks to recover. For this reason, the line fishers of Brittany, for example, have also launched a campaign to revalue unknown or forgotten species.15

What about farmed fish?

Given overfishing of many wild fish stocks, an increasingly common alternative is farmed fish. While this can seem like a perfect solution, there are two big issues to consider: the model of production and the type of fish raised. Aquaculture has existed for centuries and like agriculture, there is a wide range of ways it can be done and models of production. One commonly farmed type of seafood is mussels and oysters, which can provide positive impacts filtering the water. But, because of this function it is important to be aware of the water quality where these species are cultivated.

Despite some healthy models of aquaculture production, the very real concern over the health of our oceans has been used as a justification for the rapid expansion of large-scale environmentally unsustainable models of aquaculture. Salmon farming is a good example of some of the issues that large scale aquaculture can generate. Feeding salmon requires fishing high quantities of small pelagic fish for feed. According to Greenpeace, over a half a million tonnes of small pelagic fish from West African

waters were caught in 2019 alone to be used as feed in the form of fish meal.¹⁶ And while some environmental regulations are trying to protect European biodiversity from the impacts of salmon cages, fishmeal factories have multiplied throughout the global south, especially along the West African coast.¹⁷ The development of salmon cages also have tremendous impacts on local small-scale fishers and wild salmon populations, generating pollution, overfishing of feed fish, causing sea lice infestations which can spread to wild fish, etc.18

Farmed shrimp, one of the most popular seafood products globally, has a similarly troubling rap sheet. Some 51% of shrimp eaten in the EU is farmed and the bulk of shrimp found in European markets is imported. The EU has an 11% self-sufficiency rating in shrimp - it's capable of producing just over one tenth of what it currently consumes.¹⁹ Reports suggest that shrimp aquaculture for export markets is fuelling deforestation of mangroves,²⁰ and in some cases slave labour.21

Who owns what? Who gets what?

As potentially transformative as CSF initiatives can be, they are not a silver bullet and they don't necessarily mean that the internal operation of a fishing business is fair and just. "Given that the cost of vessels, technology and insurance continues to rise, the drive to achieve economies has focused on labour. Especially in deep-sea fishing, large conglomerates recruit fishers from some of the poorest countries in the world, which has led to the growth of a migrant workforce often earning low wages with vague or non-existent contracts."22 By offering a secure market to fishers at a fixed and fair price CSFs can relieve some of the pressure to save money by decreasing labour costs, compromising worker safety or maximising fish quantities at the expense of ecosystems. Plus, the increased exchange and interaction in direct sales provide more opportunities to get to know how the business is structured and what kind of jobs this creates.

Sustainability is about more than just environmentally conscious practices. Unfortunately, even on a small-scale boat with a boat owner and crew using fishing rods to catch species with healthy stocks, there can be exploitation and unfair labour conditions. Crew members may receive low wages. The wife of the fisher may be unpaid while managing all of the direct selling. Consumers have a role in supporting not only environmentally sustainable fishing practices, but also just conditions for the workers. The relationships fostered by direct selling and other CSF arrangements can give eaters of fish more insight into this, and allow them to support more just practices.

As mentioned above, women often have an important role in direct selling, and in some case the law encourages this gendered division of labour by mandating that only a member of the family of the fisher is allowed to sell the fish. While this may appear to incentivise family business models it can also create dependencies and undermine labour rights. In France women who handle the commercialisation of the fish which their husband catches are given the status of "collaborating spouse". However, her position depends on him, so if there is a divorce, if the husband dies, etc, she may lose her job, and benefits.

As explained by a fisherwoman from Normandy who has this status:

For lots of women in the fisheries sector, the creation of the status of "collaborating spouse" was definitely a step forward. For a generation of women who had been working in the sector without any recognition, this change brought more rights and visibility. But for me and my colleagues, this status is still really precarious. People don't realize how much work it is to manage direct sales and administrative obligations. In some enterprises, it represents more than a full time job. However, with this status, we are not employees; we just contribute to our retirement ... and wish that no accident will force our husband to stop working."



Image 4: Direct selling in Argelès-sur-Mer, France. Photo: Pleine Mer

Buying, cooking and eating fish

Although there are many existing CSFs and direct sales of seafood caught by small scale and artisanal fishers throughout Europe, they are far from ubiquitous and decisions about buying, cooking and eating fish must be understood as a process through which we can help strengthen and expand these sorts of initiatives. This process is bound to be imperfect and inconsistent at times. Indeed.

The same consumer can use both systems [conventional and alternative] alternatively and for identical reasons sometimes: better price and quality, local and eco-labelled or organic food sold in supermarkets. He[/she] may adopt an altruistic and ethical behaviour as long as it does not preclude but rather align his[/her] health and economic interests. A sharp distinction between preferences for conventional and alternative channels may therefore appear somehow artificial.²³

When it comes to buying seafood, the choices we make are greatly conditioned by where we live. For those people who live near the sea, access to fish, via direct sales and relationships with fishers is likely much easier. Additionally, mapping tools like the interactive map created by Pleine Mer in Europe, or the **Seafood Finder** created by Local Catch in North America provide extra support for anyone not sure where to go.

For people who live far from places where fishing happens, a range of distribution networks and/or solidarity-based types of intermediaries can help provide the link. However, as the number of actors between the fisher and the eater grows, the criteria or basic principles guiding the relationships along the way become ever more important. In order to be sure a distribution network truly supports SSF, some keys to look for are if the prices are fixed, and if it is the fishers themselves who are fixing them. This ensures a baseline income so that fishers don't have to maximise the quantity of fish and can instead focus on quality, just labour conditions, and environmental sustainability.

Another factor to consider is if the distribution network is owned by fishers themselves or, if not, what relationship the owners have with the fishers. Some examples of fisher owned distribution channels in France are:

- Le Bateau de Thibault and Les Panniers de la petite Laura are two systems from Normandy, where a member of a fisher's family becomes the provider for a community of consumers. In concrete terms, this person delivers fish directly to the consumers, using a refrigerated truck. This kind of system is working particularly well in Normandy, due to the proximity of the Paris market.
- Côté Fish is a similar system, built by two young artisanal fishers in the port of "Grau du Roi". Their fish is gutted, vacuum sealed, and sent directly to the consumer who can order online through their website.
- Most diving fishers use similar or hybrid systems. Indeed, their high-quality products are often very expensive and difficult to sell entirely in local markets. Therefore, they often contract companies like "Pour de Bon" and "Chronofresh", to deliver their products directly to consumers in larger cities.

Non-fisher owned examples also exist. These "short value chain shops", also called "ethical fishmongers" buy fish



Image 5: Line caught hake from Saint-Jean-de-Luz, France. Photo: Pleine Mer

from small-scale sustainable fishers for a fair price, and coordinate the distribution to the consumers. These initiatives can be really helpful for small-scale fishers, as they allow them to reach markets and consumers that they couldn't otherwise access.

In places where such initiatives don't yet exist, independent fishmongers can offer an alternative space where buyers can ask questions about where the fish comes from, which intermediaries they work with, are they able to buy directly from fishers, what kinds of fishing gear is used. Supporting smaller scale seafood sellers as opposed to large supermarket chains is not only a way to build more personal relationships and create spaces for debate about the fishing sector, but also a way to resist the concentration of power in the seafood value chain.

What about certification schemes?

One method for attempting to rebuild trust in certain seafood products is by using special labels or certification schemes. This allows fish eaters to know more about where their fish comes from even if they don't have a direct relationship with the fisher or fishmonger. Initiatives in Spain like the label Pescado de Conil have shown that initial impacts can be slow, but ultimately the label has helped to increase prices and demand. 24 "It is not easy to change global markets, but it is more accessible to induce changes in local ones for the benefit of small-scale fisheries with the acceptance of consumers, which demand quality and local products."25

However, all kinds of labeling are not created equal. Critics argue that, "ecolabeling and certification privatises fisheries governance by creating new institutions with property rights. Labels and certification organisations allocate rights and responsibilities to certificate holders,

and thus provide a 'licence' to access new markets."26 Marine Stewardship Council (MSC), one of the largest certification bodies for seafood has been heavily criticised for favouring large scale fishing operations. The high cost of MSC certification due to assessment and certification fees can exclude smaller fishing enterprises.²⁷

Research organisation, BLOOM carried out an exhaustive analysis of all MSC certified fisheries since the origins of the label. They reported extensive fraud behind the MSC label: "contrary to its assertions, the MSC label in fact mainly certifies destructive industrial fisheries"28 according to Frédéric Le Manach, scientific director of BLOOM and lead author of the study. "We further scrutinized the MSC communication and found that the MSC label hid this fundamental flaw by mainly emphasizing small-scale coastal fishing with a low impact on the marine environment,"29 he continues.

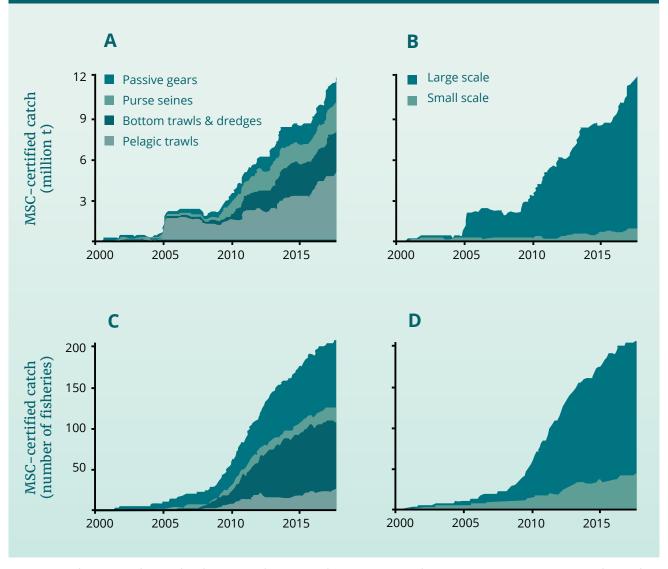
Seafood quality

There are many claims to freshness and quality in the world of seafood, but in reality fishing practices have a huge impact on the quality and freshness of the product. In general, smaller scale fishers spend less time at sea and go shorter distances, thus the fish is landed sooner after it was caught. In contrast a large trawler might be away from harbour one to two weeks. When the fish is landed, the first fish that were caught can already have been sitting for two weeks on ice on the boat. Then it's sold at the fish auction and bought by an intermediary who sends it to a fishmonger, this can take three days. If the fishmonger buys the fish on a Monday and you arrive on a Friday ... the fish can already be more than 3 weeks old! The quality is therefore related to the technique that was used to catch the fish. Line caught fish tends to be higher quality in part because it is caught closer to harbour and spends less time on ice before being eaten.

Different fishing techniques will also impact the quality of the flesh. Line fish for example, is considered excellent in terms of quality. On the other hand, fish from a high sea trawler will have lower quality: the fish will first stay a few hours in a net that is dredged on the sea bottom, and will then be stored in the boat for a few days or weeks. To catch red mullet, on the other hand, the fishing nets of small-scale fishers stay in the water for just 20-60 minutes, ensuring excellent quality of the fish. On the other hand, in order to catch monkfish, some boats put nets in the water for more than 3 days, where the first fish to be caught may die quickly and remain dead in the water for the remaining time. This variation between fishing practice impacts ecosystems, as well as the quality of the fish when it reaches consumers.

FIGURE 1:

Evolution of MSC-certified catch by gear



(A: in catch; C: in number) and scale (B: in catch; D: in number), 2000-2017. The "Passive gears" category in panels A and C includes entangling nets, longlines and other hooks & lines, pots & traps, and other hand-operated gears (e.g. beach seines, hand rakes).30

In addition to these time and technique considerations, the way a fish is slaughtered also significantly impacts the quality of the flesh. The "Ikejime" technique, in particular, ensures especially high-quality fish. Ikejime is a traditional Japanese technique of quickly slaughtering, severing the spinal cord, and draining the blood of the fish in order to ensure high quality after it is matured. By doing this, "Nerve impulses no longer pass to the flesh, which does not receive the information of death. The

inevitable natural process of degradation is significantly delayed. (...) The flesh of an ikejime fish keeps better and is superior taste."31 It can be kept for up to 20 days and maintain its quality, while a fish slaughtered without using this method loses its firm texture and fresh flavour more quickly. "In Japan, where the majority of quality fish is treated this way, the method was born from a Buddhist vision of death given to the animal. It must suffer as little as possible and be valued as highly as possible."32

Cooking and eating fish

Gastronomic cultures vary widely when it comes to seafood. In general buying whole fish allows for a better assessment of the quality and freshness of the fish upon purchase. Often old or bad quality fish is cut into filets so that the consumer cannot see it as clearly. As fresh fish is easily perishable, for best preservation it should be cleaned and gutted as soon as possible. Ideally it should be kept around 2°C but not lower, since freezing can impact the quality because of ice crystals that form in the flesh.

Buying whole fish can also help reduce the amount of the animal that is wasted. However lack of familiarity with

handling and butchering whole fish, and lack of knowledge as to what to do with less commonly used parts are obstacles to this. One way to ensure the freshest fish is to buy it whole, but ask the fish monger to cut it for you before you take it home. If you are going to butcher it yourself, be sure your knife are sharp so as to get the cleanest cuts possible. Each fish is different but there are many video tutorials about how to prepare seafood. Besides the filets, there is increasing availability of recipes, ideas, explanations and books on how to use the rest of the fish, from fish stock to garden fertiliser.

BOX 1:

How to assess the quality of a fish?

In general things to look for when assessing the quality and freshness of fish include:

- 1 **Body:** should be firm, rigid or arched. Soft, grey and inelastic is a sign that the fish is old.
- 2 Skin: should be bright, shiny, slippery with a clear slime and metallic luster. Scales should be tightly attached. Damaged, cracked, milky or discoloured skin and detached scales are a sign that the fish is old.
- **3 Eyes:** should be clear and glassy, and bulging, not milky or sunken.
- 4 Gills: should be bright, wet and red or at least pink. Dry, grayish brown and smelly gills are a sign that the fish is old.
- **5 Belly:** should be shiny and undamaged not stretched or with green spots. And the anal opening is tight, not protruding or yellow-brown in colour.
- **6 Smell:** should be mild and pleasant. Spoiled fish smells sharply of trimethylamine and rot.

Conclusion

Our hope in this short brief is to provoke more questions than answers, and to inspire seafood eaters to seek answers in context and in community. That said, we highlight the following key points to guide that process:

- It matters who fishes try to build relationships with and/or knowledge about the fishers providing the seafood you eat.
- The ways that communities support fisheries are diverse and evolving. What matters are the core principles that guide these efforts rather than the logistical details. CSFs can contribute to redistributing wealth and power in the fisheries sector; to increasing the ecological sustainability of fishing by incentivising quality over quantity; and building socially just community and labour relations.
- Depending on where you are, your engagement in these issues will vary. Distribution networks and intermediaries can be set up in ways that help communities support fishers, but this must be deliberate. Fixing prices, committing to purchasing in advance or establishing fisher ownership of these networks are different ways of ensuring supportive rather than exploitative relations.

- How fishers fish varies greatly. Asking questions about fishing practices like, how big the boat is, who owns it, where and when do they fish, what gear do they use, how are the fish slaughtered, and what are the concerns and challenges fishers face, can teach fish eaters about the realities of fishing and marine ecology and also communicate to fishers that eaters care about other things than quantity and low prices.
- Fishing is hard work, and the opportunity to eat seafood is something we can't take for granted. Pay attention to where you buy, the quality of the seafood, and how to use and value the whole fish in your cooking.
- Eating local and sustainable seafood is a good starting point to encourage a sustainable and fair transition in the fishing sector. But it isn't sufficient. Multinational companies are reappropriating the language of "local sustainable seafood" to sell the fish from their supertrawlers. CSFs can be a vehicle through which consumers and small-scale fishers organise collectively against this multinational companies, and in support of food systems that nourish communities, regenerate ecosystems and provide decent and dignified livelihoods.



Image 6: line caught hake fisheries in Saint-Jean-de-Luz, France. Photo: Pleine Mer

Glossary³³

Beach Seine: A seine (see seine below) operated from land, which are generally used in shallow waters, near the shore: the bottom and surface act as natural barriers which prevent the fish from escaping from the area enclosed by the net.

Bottom trawl: Bottom trawls are designed and rigged to work near the bottom. According to the type used, one may distinguish: low opening trawls, especially adapted to the capture of demersal species, such as beam trawls and shrimp, sole or nephrops trawls; and high-opening trawls, suitable mainly for the capture of semi-demersal or pelagic species. In bottom trawls, the lower edge of the net opening is normally protected by a thick groundrope ballasted with chain sinkers and often covered with rubber discs, bobbins, etc.

By-catch: Part of a catch of a fishing unit taken incidentally in addition to the target species towards which fishing effort is directed. Some or all of it may be returned to the sea as discards, usually dead or dying.

Dredges: Gear dragged along the bottom, usually to collect molluscs such as mussels, oysters, scallops, clams, etc. The shellfish are held in a sort of bag or sieve which allows the water, sand or mud to run out.

Entangling net: With this type of gear, the fish are gilled, entangled or enmeshed in the netting, which may be either single (gillnets) or triple (trammel nets). Several types of nets may be combined in one gear (for example, trammel net combined with a gillnet). These nets can be used either alone or, as is more usual, in large numbers placed in line ('fleets' of nets). According to their design, ballasting and buoyancy, these nets may be used to fish on the surface, in midwater or on the bottom.

Hand rakes: Various types of rakes are used to harvest clams and oysters. Basket rakes are equipped with wire mesh baskets to hold the catch, and bull rakes and tongs have very long handles for operation from a skiff.34

Liner: A fishing vessel that uses lines and hooks, with or without a bait. Examples are: handliner, longliner, pole-and-line vessels. Vessels of all sizes can be liners, depending on the method of line fishing, area of operation and species to be caught.

Longlines: A fishing gear in which short lines carrying hooks are attached to a longer main line at regular intervals. Longlines are laid on the bottom or suspended horizontally at a predetermined depth with the help of surface floats. The main lines can be as long as 150 km and have several thousand hooks (e.g. in tuna fisheries).

Pelagic fish: Fish that spend most of their life swimming in the water column with little contact with or dependency on the bottom.

Purse Seine: Nets characterized by the use of a purse line at the bottom of the net. The purse line enables the net to be closed like a purse and thus retain all the fish caught. The purse seines, which may be very large, are operated by one or two boats. The most usual case is a purse seine operated by a single boat, with or without an auxiliary skiff.

Seine net: Nets which are usually set from a boat, and can be operated either from the shore (beach seines) or from the boat itself (e.g., Danish or Scottish seines). The manner of capture is to surround an area of water with a very long net, with or without a bag at the centre. The net is usually operated by two ropes fixed to its ends, used both for hauling it in and for herding the fish.

Trap fishing: Fishing by means of devices able to trap fish in confined environment (traps, pots) often designed and baited to catch a particular species: Crab pot, lobster pot, tuna trap, fyke nets.

Pelagic Trawler: Fish that live in the upper water column of the ocean are targeted by pelagic/ mid-water trawls. The funnel-shaped trawl nets are hauled by either one or two boats (pair trawls). Pelagic boats generally fish for a single species (unlike the demersal trawls). On very large vessels, fish such as herring and mackerel are pumped onboard the vessel through a large pipe placed in the end of the net. Smaller vessels bring nets onboard. Once captured, the fish is either kept chilled on board or processed and deep-frozen at sea.35

Endnotes

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Image 7: Line fishing for hake, St. Jean de Luz. Photo: Pleine Mer



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Pleine Mer is an organization which fights for more social and environmental justice in the fishing sector and on the coast. Pleine Mer brings together fish eaters, fishermen, scientists, activists who are collectively committed to more sustainable fishing, socially and environmentally speaking. The organization promotes direct sales and community supported fisheries through digital tools, in order to support local fishing and fight against overfishing. Pleine Mer members also organize events and campaigns to alert people to the dangers of industrial fishing.

www.associationpleinemer.com