

Super Seafood: Sustaining people and planet

Consumer perceptions on environment, diet, health and seafood

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Foreword – Henry Dimbleby MBE

How can we feed ourselves in a way that nourishes both our bodies and regenerates the earth's ecosystems – restoring and enhancing the natural environment for generations to come?

This is the question that motivated me when the UK government approached me to develop a National Food Strategy in 2018. The policies we proposed were designed to transform how we grow, supply, and consume food. While some have been adopted and others are being accelerated by the current government, there is still much work to be done.

Take wild-caught seafood, for example. It's a nutritious, affordable, and sustainable source of protein – exactly what we need. Yet, despite the NHS recommendation to eat two portions a week¹, only 21% of Britons do.² This means eight out of ten of us are not consuming the amount required to support a healthy diet.

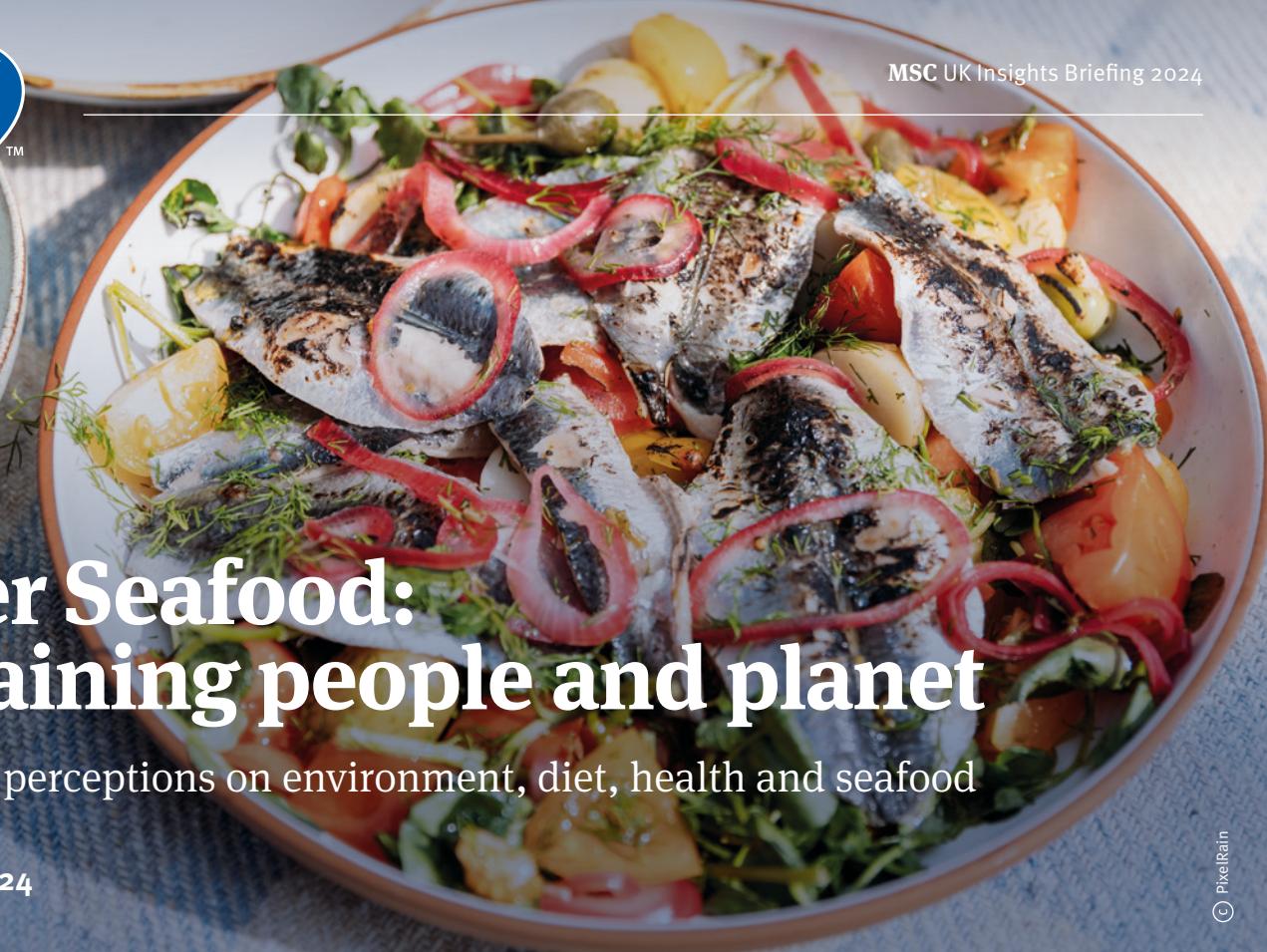
Why? According to the MSC, nearly half of us are concerned about the environmental impact of our food choices – and rightly so. The MSC itself was established in response to the collapse of cod stocks in Newfoundland, an industry devastated by humanity's failure to protect its resources. The latest SOFIA report shows that more than a third of global fish stocks are overexploited³, and the situation is worsening.

So, how do we follow the NHS guidelines without exacerbating this problem? If UK seafood consumption were to double, as recommended, we would need to ensure fishing is managed sustainably and restore stocks to healthy levels. Nature, when supported, can rebound. The MSC estimates that, by managing fish stocks sustainably and based on science, we could harvest 16 million more tonnes of seafood globally, feeding an additional 72 million people – more than the entire UK population – annually. The MSC's blue ecolabel is proof that change is possible when sustainable practices are incentivised.

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But none of this will happen through individual action alone. In the UK, for instance, Northeast Atlantic mackerel lost its MSC certification due to unsustainable quotas, reducing consumer access to certified seafood. This shows how complex international resource management can be – and how critical collective responsibility is.

In our work, consumers told us they were willing to change. They said they would reduce their meat and dairy consumption, not just for personal health but to lower methane emissions and ease the pressure on land use. And this is where seafood fits in: a lower-carbon⁴, nutrient-rich alternative to land-based animal proteins. But when it comes to it, they simply do not have the headspace to think about exactly how their food is produced in the moment. They rely on others to do that for them.

Scaling this change will require more than individual efforts. As this report urges, governments, businesses, and policymakers need to act – and the UK must deliver on its commitments to implementing a world-leading approach to sustainable fishing. What we need is a “Blue Foods Transformation,” as the United Nations calls it – a global effort to rethink how we produce and consume food from the sea. There is hope. As the MSC has shown, systems can change. It comes down to willpower – reshaping our relationship with food so that it not only nourishes us but also sustains the planet for generations to come.



About Henry Dimbleby MBE

Author of the book *Ravenous*, co-founder of the sustainably minded fast-food restaurant chain Leon and food activist whose UK government-commissioned National Food Strategy – an ambitious case to transform the way food in Britain is produced – was widely heralded.



Introduction

Overfishing has reached record levels, with more than a third of marine stocks now fished beyond biologically sustainable limits, according to the latest data from the UN's Food and Agriculture Organisation (FAO).⁵ It's a trend that has been steadily worsening over time.

Nevertheless, we need to feed the planet and its growing population, likely to peak at over 10 billion in the coming decades.⁶ The United Nations' Blue Food Transformation, an initiative to realise the potential of the oceans in supporting global food security, recognises this.⁷ Compared with other protein sources, aquatic foods are low carbon and have low environmental impacts.⁸ What's more, seafood is one of the most nutrient rich foods, packed with protein, vitamins and minerals.

In the UK, the National Health Service (NHS) recommends a healthy, balanced diet should include at least two portions of fish a week, including one of oily fish.⁹ However, according to the Marine Stewardship Council (MSC) survey only 21% of UK consumers are following this guidance, despite the NHS promoting fish and shellfish as 'good sources of many vitamins and minerals' and the 'heart healthy' benefits of oily fish.

How do consumers feel about this? The FAO's latest report shows global human consumption of aquatic animal foods has more than doubled from 9.1kg per capita in 1961 to 20.7kg per capita in 2022.¹⁰ But independent research carried out by GlobeScan on behalf of the Marine Stewardship Council (MSC) paints a more nuanced picture when it comes to consumption habits on a local level. The survey of over 27,000 people, across 23 countries, shows profound diet shifts underway in some countries, partly driven by cost-of-living crises. But environmental concerns are also looming large for some people.

The survey was carried out between January and March 2024, and is the fifth edition following its launch in 2016. Of all those surveyed, over 20,000 identified themselves as seafood consumers (defined as someone who has purchased seafood in the past two months and/or who regularly eats seafood). In the UK, 1,378 people made up the sample, with 1,073 being classified as seafood consumers.

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There is a fantastic opportunity here to really get behind UK fishing communities and others around the globe in meeting the environmental and health expectations of consumers. Governments, businesses and industry must work together to raise the profile and grow the supply of healthy, sustainable, wild-caught fish and seafood, for consumers today and in the future.

George Clark
MSC UK & Ireland Programme Director

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Key Findings: MSC Seafood Consumer Survey

- Researchers asked 27,000 adults around the globe if they had made changes to their diet in the past two years. Of the more than 22,000 people who said yes, 43% of them said they have changed their diet to have less impact on the environment, whilst health reasons and cost remain key drivers of change.
- In the UK, 79% of respondents said they had changed their diet in the past two years. The standout driver for dietary changes amongst this group is health, with 65% citing 'to be healthier' (up from 58% in 2022) followed by having less impact on the environment with 45% (down from 50% in 2022). Eating better quality food follows with 41% (up from 32% in 2022) followed by saving money at 36% (up from 30% in 2022).
- An average of 35% of all UK shoppers surveyed have reduced their consumption of red meat over the past two years. 39% say they are eating more vegetables, 20% are eating more beans, legumes and plant-based alternatives to meat and dairy protein, while 13% are eating more seafood. However, one in four say they are eating less fish than two years ago. Those eating more fish are eating less red meat, those eating less fish are eating more vegetables.
- One in five UK consumers are following NHS recommendations of eating at least two portions of fish (including one oily variety such as sardines and anchovies) per week, despite the promoted health benefits of seafood.
- The UK seafood consumer says they would eat more fish and seafood if it cost less (52%), was produced in a way that doesn't harm the ocean (29%), for health reasons (26%) and if there was greater availability (22%).
- The top UK drivers for purchase continue to be safeness, taste, freshness and health, followed by price. Over a fifth (21%) of UK seafood consumers are primarily motivated by sustainability credentials when purchasing fish and seafood.
- Over half (55%) of UK seafood consumers say seeing the blue MSC ecolabel would make them more likely to purchase a product, and 53% say that they are prepared to pay more for products that come from a certified sustainable fishery.

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GlobeScan Seafood Consumer results vs national recommendations

Whilst GlobeScan research shows many consumers are concerned about healthy eating, an analysis of healthy eating guidelines in Europe and North America¹¹ show governments also typically encourage eating fish and seafood as part of a healthy balanced diet.

However, despite government recommendations and consumer interest in healthy eating, the survey revealed a significant variation across countries, in those who said they were eating two portions of seafood a week, from 7% to 49%. By comparison, in the same countries, between 34% and 55% of consumers said they were also changing their diets for environmental reasons.

Notably the UK results show that regular consumption is higher than France, Sweden and Belgium, but still, although being an island nation, significantly behind the fish-loving nations of Spain, Portugal and Italy.

National recommended portions of seafood per week

	National guide, represented as a food wheel includes daily 1.5-4.5 servings of meat, fish or eggs		Government-endorsed Spanish Agency for Food Safety and Nutrition (AESAN) recommends 3 servings of fish per week
	Norwegian guidelines on diet, nutrition and physical activity advise fish 2-3 times per week		‘Dietary guidelines for healthy eating’ recommends small fish as part of a balanced diet
	The UK’s National Health Service (NHS) recommends at least 2 portions of fish a week, including oily fish		The French public health agency encourages fish consumption twice a week, including oily fish
	Finnish nutrition guidelines (2014) advise a variety of fish species 2-3 times a week		Swedish National Food Agency (2015) guidelines recommend: ‘More seafood. Vary your intake of fatty and low-fat varieties and choose ecolabelled seafood’
	The Official Dietary Guidelines (2021) want Danes to eat healthy climate-friendly foods: ‘Eat less meat: choose legumes and fish’		Represented as a ‘plate of healthy eating’ people are encouraged to eat more fish amongst whole grains and plants
	The government’s Dietary Guidelines for Americans (2020-2025) recommends 2 servings of seafood per week		Canada’s Food Guide includes fish amongst other healthy proteins
	The Superior Health Council (SHC) recommends eating fish once or twice per week		Government dietary guidelines (known as the nutrition circle) includes fish alongside meat, sausages and eggs as one of the core six food groups
	The Swiss Society for Nutrition food pyramid sets dietary guidelines: ‘Consume’ three portions of dairy products and also one portion of meat/fish/eggs/tofu per day. Alternate between these protein-rich ‘foods’		Austrians are advised to eat at least one or two servings of fish (150g) a week
	Dutch ‘Wheel of Five’ guidelines: ‘Eat less meat and more plant-based foods, and vary with fish, pulses, eggs and plants’		

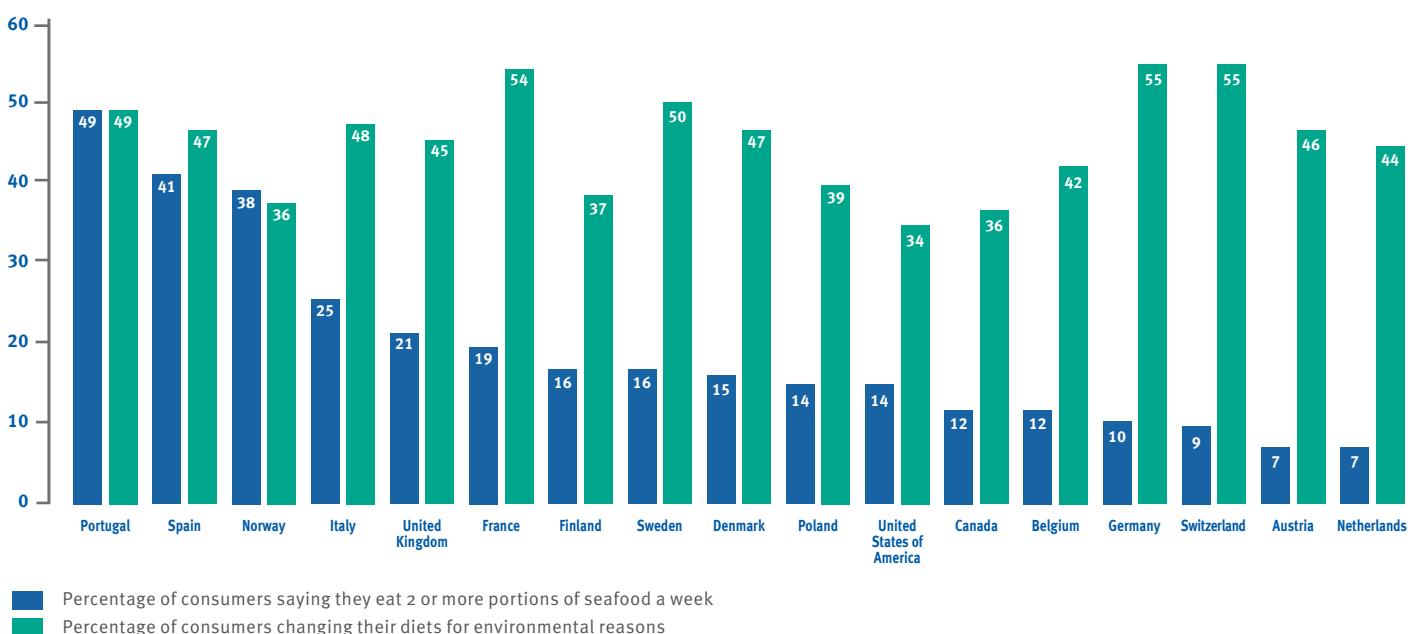
Reasons for changing diets

Twice weekly fish or seafood consumption in the UK has been a challenge to meet for some time, despite the NHS guidance and a suite of consumer-facing promotional campaigns across the past two decades.¹² Notwithstanding an increase in UK retail sales in the first half of 2024, total consumption is in long-term decline, falling 22% from 2006 to 2022, according to UK trade association Seafish, with the rate of decline accelerating post-COVID. The ‘Fish as Food’ report found that UK consumption is just over one portion per person per week – half the NHS-recommended amount.¹³

While traditional barriers such as taste, bones, smell and confidence in cooking and preparing fish and seafood should be considered, with 27% of consumers saying they are eating less seafood in 2024, up from 17% in 2022, the MSC research points to wider factors contributing towards a downward trend in consumption.

MSC’s survey of 1,378 UK consumers found that 1,091 of them (79%) had changed their diets in the past two years, with motivators for these changes ranging from health to quality and environmental issues. The top reason they gave for doing so was “to be healthier” (65%), followed by “to eat better quality food” (41%) and “to save money” (36%). Respondents also gave a range of environmental reasons for making changes, including “to eat more food from a sustainable source” (25%), “to protect the environment” (25%) and “to protect the oceans” (14%). Overall, 45% of UK respondents gave some kind of environmental reason for changing diets.¹⁴

Consumers weekly claimed seafood consumption and environmental reasons for changing diets



The fact that ‘being healthier’ was cited as the leading reason by nearly two thirds of respondents (up from 58% in the previous survey) suggests that dietary and food choices are increasingly seen as a health issue by consumers. The UK Government and NHS agree. As well as recommending at least two portions of fish a week, the Eatwell Guide suggestions for proteins also recommend eating one portion of oily fish (like sardines or anchovies) per week, and that it is from sustainable sources, promoting the MSC for how to find this.¹⁵ Fish and seafood are, in fact, the only animal proteins recommended for frequent weekly consumption by NHS guidelines.

Segmenting seafood consumers into narrower groups brings a further degree of nuance. Over a fifth (21%) of UK seafood consumers are primarily motivated by sustainability credentials when purchasing seafood. But even among seafood consumers whose primary motivation is health (24% of the total) or value for money (30%), ensuring that fish is produced without harming the ocean would be a main factor in encouraging them to eat more.

The survey results suggest that despite an overarching concern with health, fish and seafood is often seen as too costly – both economically and environmentally – by many consumers. However, it also suggests that a significant proportion may eat more fish or seafood, if they knew it came from sustainable sources and it was more affordable. With health being the primary motivator for dietary changes in the research (increasing from 58% in 2022 to 65% in 2024), the health benefits of seafood could be key driver for further adoption of sustainable fish and seafood products in UK consumer diets.

The benefits of eating fish and seafood

There's a reason why the NHS and many other national bodies recommend eating two portions of fish a week - scientific research has repeatedly shown that fish and seafood include essential nutrients and fatty acids for human health, some of which cannot be found in other foods. On average seafood has much greater nutritional benefits than meat from terrestrial animals.¹⁶

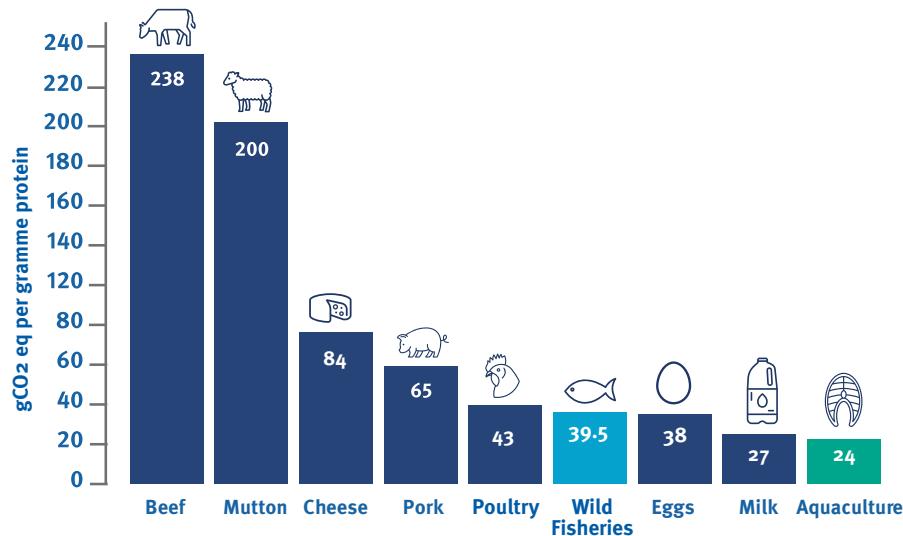
Aquatic food production also has fewer environmentally harmful impacts: wild seafood production doesn't require land or freshwater, and results in fewer pollutants. And overall carbon emissions from seafood are significantly lower than those from red meat production.¹⁷ Bivalves – shellfish such as mussels, clams and oysters – have the lowest environmental impacts of all seafood and they can even sequester carbon in their shells. A 2018 paper found that wild fisheries produce approximately one to five kilos of carbon for each kilo of fish caught, compared with 50 to 750 kilos of carbon per kilo of red meat.¹⁸

When we look specifically at what might encourage people to eat more sustainable fish and seafood, the emphasis on areas of concern changes. The top motivators were a desire for 'lower cost' (52%), 'fish produced without harming the ocean' (29%), 'knowing it could lead to a longer and more active life' (26%) and 'more availability of fish when I shop' (22%) - highlighting the importance of retailers, restaurants and other businesses providing a range of seafood options. This could suggest that government-endorsed messages and guidance from health experts about fish as a healthy dietary choice are not filtering through, or do not present a great enough incentive when measured against price, but also environmental factors. Promotion of these messages, however, could simply require more investment to have the desired impact on consumers. Other measures that talk to the UK consumer beyond simply health, including environmental ones, that are so important to avoid displacement of consumption upon unsustainable fishing, need further consideration.

One in five (20%) UK consumers said 'more information on the health benefits of fish and seafood' and 'knowing that eating fish or seafood is better for the environment than red meat' would encourage them to eat more, highlighting the importance of public awareness campaigns like MSC's Sustainable Seafood September. However, as the UK's National Food Strategy¹⁹ highlights, most UK food marketing spend promotes unhealthy products, with 31% spent on food high in fat, salt and sugar (HFSS), compared with 3% on fruit and vegetables and just 2% on fish. There is clearly, therefore, a need to redress this imbalance, and ensure that good support and investment goes into the marketing of healthy, certified sustainable, fish and seafood products.

Environmental performance of wild fisheries compared with other sources of protein

Carbon emissions



Source: Oceana, Wild seafood has a lower carbon footprint than red meat, cheese, and chicken, according to latest data (2021)

55%

of UK seafood consumers say seeing the MSC label would make them more likely to purchase a product

53%

are prepared to pay more for products that come from a certified sustainable fishery

Could Blue Foods provide for a growing global population?

With the global population already more than 8 billion and likely to peak at over 10 billion in the coming decades, we need access to sufficient healthy food that is produced in a way that respects our planet's limits.²⁰ With the publication of the [Blue Food Assessment \(BFA\)](#) in 2021 followed by the UN FAO's [Blue Food Transformation Strategy](#) in 2022, policy makers, NGOs and businesses are becoming increasingly aware of the important role of 'blue' or aquatic foods.

But the insights in this report suggest there's widespread public concern around ocean conservation and sustainable consumption. And people are right to be worried. The most recent UN report on the state of the world's fisheries showed that more than a third of global fish stocks are overfished and the trend is worsening over time.²¹

The top drivers for seafood purchase in the UK continue to be conventional motivators: safeness, taste, freshness and health. Price follows, rising in importance compared with the 2022 survey due to the increasing cost of living, while a fifth (21%) of all UK seafood consumers are most influenced by sustainability and environmental credentials when purchasing fish and seafood.

If we are to follow the dietary guidelines and eat two portions of fish per week in the UK, that fish must come from a sustainable source, where stocks are healthy and environmental impacts are well-managed. Estimates also suggest that if all global fisheries were sustainably managed, 16 million tonnes more seafood could be harvested every year.²² Furthermore, the MSC's analysis shows that ending overfishing could provide nutrition for 72 million people.²³

The MSC's science-based certification programme incentivises and enables sustainable wild fishing globally, to safeguard fish stocks and protect marine ecosystems, providing consumers with sustainable fish and seafood options. Currently, 19.5% of the world's wild marine catch is engaged in the MSC programme, with a growing number of ecolabelled sustainable seafood products available for consumers around the globe, including here in the UK.²⁴ In addition to increased supply, MSC data also shows there is a growing demand for certified sustainable options among UK shoppers.²⁵ But to accelerate progress and realise the benefits of aquatic and marine foods, governments must put sustainability at the heart of their national food strategies, setting enabling rules to ensure that fisheries are recognised.²⁶

16 million

more tonnes of seafood could be harvested every year if fisheries were sustainable

72 million people

could benefit from nutritious seafood if overfishing was tackled

19.5%

of the world's wild marine catch is engaged in the MSC programme



Conclusion

With nearly 80% of all UK respondents to the GlobeScan MSC Seafood Consumer Survey 2024 making some kind of change to their diet in the past two years, decision makers should be encouraged that public attitudes to dietary choices are dynamic. This adaptability suggests there may be public support to change and improve our food systems, shifting them to a more sustainable basis.

As the survey shows, a significant proportion of consumers want to know that their food is coming from sustainable sources. There are more than 1,400 MSC-certified products available in the UK, but the survey results suggest there is a demand for more. Based on the consumer research, and insights from the MSC's internal experts, here are our key recommendations:

1. Take a holistic approach to dietary recommendations that include sustainability considerations

Even amid cost-of-living crises, many consumers are concerned about environmental issues, including protecting the ocean. We encourage food industry leaders, the UK Government and its devolved administrations to look holistically at the dietary choices they promote to the public, accounting for environmental sustainability concerns, as well as health and affordability. Emphasising the benefits of fish and seafood regarding these elements through public awareness-raising initiatives is critical.

2. Enable and empower the UK fishing industry in sustainability

Population growth, climate change, overfishing and habitat loss are putting huge pressures on our oceans, so we must act now to support fishing companies and communities in adapting to and maintaining sustainability. Evidence-driven, sustainable management of fish stocks, as well as innovations, can safeguard and improve future 'blue food' supplies. The MSC Standards offer a framework to help fisheries demonstrate their sustainability and make improvements to their fish stocks, environmental impact and management practices, while meeting consumer expectations.

3. Increase direct engagement with consumers and deliver a sustainable UK fish and seafood industry

A joined-up approach is needed if national health guidelines for eating fish and seafood are to be met by UK consumers. This research suggests one route may be to improve consumer confidence and trust in fish as 'Super Seafood'; a highly nutritious, often affordable and – crucially – sustainable source of protein. Increasing the availability of sustainable fish and seafood in the UK market is also a notable aspect of this research. National and local leadership is therefore needed to further promote fish and seafood, including the development of knowledge, skills and confidence amongst consumers, whilst scaling and modernizing UK seafood infrastructure for the production of sustainable blue foods that help meet the nutritional needs of sustainable diets.

4. Government must deliver a world-leading approach to sustainable fishing

It is imperative the UK Government, devolved administrations, policy makers and agencies deliver on their commitments to implement a world-leading approach to sustainable fishing. Utilising the skills, demand and expertise of the stakeholder network in the UK and supporting this through appropriate and ambitious funding for science, research and initiatives aiming to improve the sustainability of UK fisheries is critical. This will all aide in turning this great opportunity to provide the sustainable fish and seafood that UK consumers are demanding into a reality, whilst safeguarding ocean biodiversity and fish stocks, and securing livelihoods and fishing communities for the future.





Notes

According to MSC's 2023 State of the Water Report, 25% of UK catch is MSC certified, and its Market Report, also released in 2023, shows that there is a growing demand for and availability of certified sustainable options and species for UK shoppers. Last year, MSC-labelled products accounted for an estimated 59% of the value and 58% of the volume of all wild caught fish and seafood sold in the UK supermarkets, up from 54% and 51% respectively the previous year. The variety of sustainably sourced wild-caught species available to UK shoppers also continued to grow, with 53 different species sold last year compared to 49 the year before and 32 ten years ago. Even amongst firm favourites like tuna, the availability of MSC certified options has continued to grow. Last year, one in every four cans of tuna sold carried a blue MSC ecolabel. This figure is expected to rise to one in every two by the end of the year as supermarkets and brands expand their sustainable tuna product ranges.

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