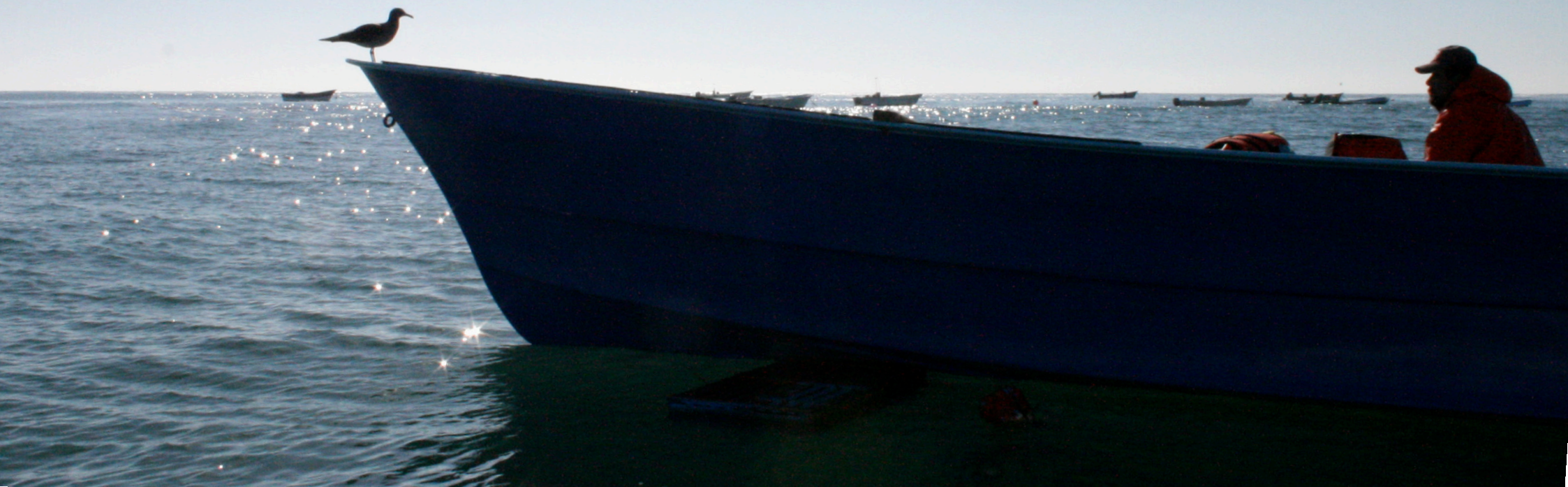




Making Waves: Small-scale fisheries achieving sustainability with the MSC



Our mission and ambition

Our Mission

To use our ecolabel and fishery certification program to contribute to the health of the world’s oceans by recognising and rewarding sustainable fishing practices, influencing the choices people make when buying seafood and working with our partners to transform the seafood market to a sustainable basis.

Our Ambition

To significantly increase the number of small-scale fisheries benefiting from engagement with the MSC program



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The Marine Stewardship Council

From coral reefs to polar seas, the ocean is home to an extraordinary variety of life.

Much of this life is essential to sustaining us. Around the world, more than a billion people rely on fish for their main source of protein, while around 1 in 10 depends on fishing for their livelihood.

Yet at a time when a growing global population needs sustainable, low-carbon protein more than ever, a third of fish stocks are overexploited, and the ocean faces unprecedented threats from global warming, acidification and plastic pollution.

Over the past two decades, the MSC has shown we can be part of the solution. Together with a diverse array of partners from industry, government and civil society, we've worked to ensure fisheries are certified against a science-based set of requirements for sustainable fishing. Certified seafood carries the blue MSC label showing that it was caught by a sustainable fishery in a responsible way that ensures healthy oceans and safeguards seafood supplies for the future.

Nearly 500 fisheries around the world are now engaged in the program, certified or under full assessment. Collectively these fisheries land 12 million tons of wild-caught seafood, or 16 percent of the wild harvest taken from our oceans each year.

Today, the blue MSC label is the world's most recognised and respected badge for sustainable wild-caught seafood: it's found on close to 37,000 products in over 100 countries.

Certification is creating real change on the water: improving management and reducing impacts in hundreds of fisheries. Some have introduced voluntary fishing ground closures, others have modified fishing gear to make it more selective or worked to reduce bycatch and discards of sea birds, juvenile fish and other unwanted species.

Such improvements haven't just occurred in large fisheries but in small-scale fisheries too, in both the Global North and South.

Small-scale fisheries and the MSC

We've been engaged with small-scale fisheries since our inception. We recognise the financial, capacity, data and governance constraints they face to achieve a sustainable level of performance, particularly in the Global South - where the state of stocks is worsening compared to the Global North (FAO). We have been working hard to build capacity by creating tools and guidance, funding research and helping fisheries who have difficulty accessing our program get started on the journey to sustainability.

This report provides the first ever review of the collective impact of small-scale fisheries in the MSC program across the Global South and North. It shows that not only are real ecological improvements being achieved on the water, but they are often complemented by social and economic benefits on land.

The small-scale fisheries featured here are just a few of the 62 that are engaged with the MSC program as of 2019 and the initiatives put in place to help achieve sustainable fishing practices.

In 2019

62

MSC small-scale certified fisheries

16%

of MSC certified fisheries are small scale

80,000+

livelihoods supported by MSC certified small-scale fisheries

Pathway to sustainability: support for small-scale fisheries

We recognise that many small-scale fisheries face unique challenges as they improve towards sustainability. All too often, and particularly for small-scale fisheries in the Global South, a lack of data, capacity or government support can constrain the uptake of sustainable fishing practices.

To help overcome these hurdles and ensure that the MSC program and its benefits are accessible to all, we provide a flexible suite of tools, training, technical and financial support for small-scale and data-deficient fisheries (page 8).

With demand for sustainable seafood continuing to rise, increasing numbers of fisheries are making the necessary changes to become sustainable, with the hope of achieving certification. To accomplish this, they typically start by identifying gaps in performance against the MSC standard and setting up Fisheries Improvement Projects (FIPs), where they

work with stakeholders and partners to develop and implement improvements to address these gaps where needed.

Credible FIPs play an important role in improving the sustainability of a fishery. MSC defines Credible FIPs as characterised by:

- A pre-determined limit to the amount of time spent in this stage, which should generally be no longer than five years
- An upfront commitment to verify the success of the project by entering full MSC assessment and achieving MSC certification through a transparent, independent process.
- An initial gap analysis against the MSC Standard (MSC pre-assessment)
- An action plan that is inclusive of activities, budgets, roles and responsibilities, that is linked to the MSC performance indicators
- Regular reporting of progress against the action plan
- The presence of a mechanism to verify and provide assurance about the robustness of the process and progress being made

MSC provides several pathway tools to support fisheries in improvement projects as they progress on the pathway to sustainability and certification.

To increase the number of small-scale fisheries engaged with the MSC we have worked with partners to initiate a number of collaborative pathway projects (page 9). To date over 100 fisheries in over 20 countries are taking part, working with local partners to use the tools that best addresses their needs.



Sustainability pathway tools



Pre-assessments

A pre-assessment is an optional but recommended analysis that determines a preliminary performance against the MSC Standard and highlights gaps, to help understand the readiness for a potential certification process.



Action plans

The fishery improvement action plan tool can be used to develop an action plan that will address the gaps identified in a fishery's pre-assessment. The plan should aim to transform the fishery sufficiently to meet the MSC Fisheries Standard requirements following the MSC performance indicators.



Benchmarking & tracking

The MSC's benchmarking and tracking tool can be used to consistently and transparently track the actions and environmental performance level set out in the plan. Progress is measured on an annual basis.



Multi-fisheries model

The multi-fisheries pre-assessment model is an evolving approach. These projects combine other pathway tools in a strategic and collaborative way to engage with multiple fisheries at the same time and leading to on the ground pathway projects.



Capacity building program

A training program for fishery clients, managers, scientists, consultants and other stakeholders engaged with fisheries working towards MSC certification. The MSC offers regular training workshops and a Capacity Building Toolkit. This toolkit is a comprehensive and practical guide to the MSC Fisheries Standard, and showcases examples of best practices, describes what information will be checked during an assessment and outlines example actions that could be implemented during an action plan or a Fisheries Improvement Project (page 7).



In Transition to MSC program

The MSC's pilot In-Transition to MSC Program offers an independent way of validating progress in pre-MSC fisheries along the pathway to sustainability. Participating fisheries that make sufficient, verifiable improvements can gain access to tailored technical and financial support.



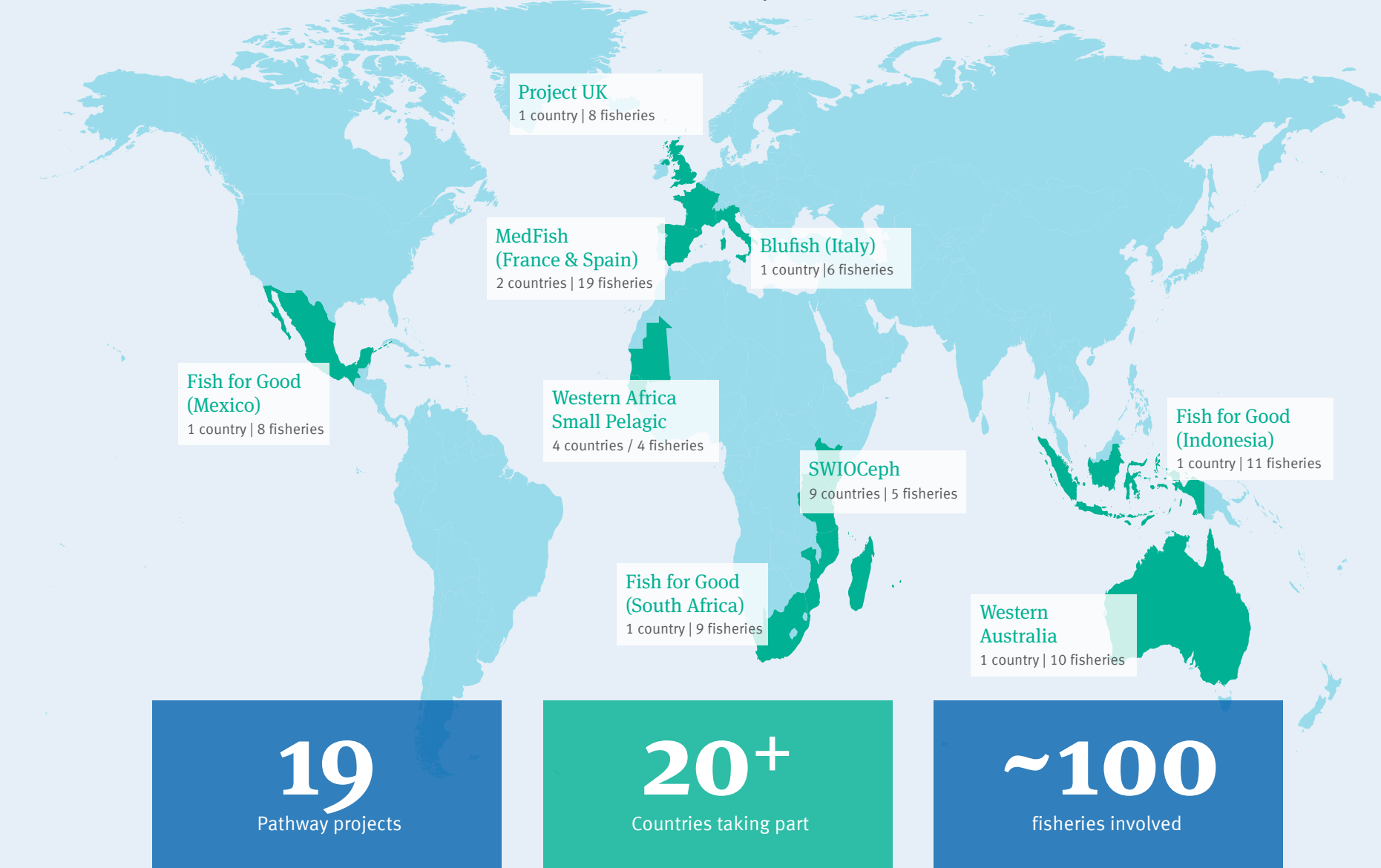
Ocean Stewardship Fund

A portion of the MSC's Ocean Stewardship Fund is already earmarked to support fisheries willing to improve towards the MSC certification, with a special focus on small-scale fisheries. We will continue to expand this program to support many more fisheries on their journey to sustainability.



Boat at Sea, Cornish hake and Newlyn photos © Oliver Berry

Some of our pathway projects



Making an Impact

Rising tide

Small-scale fisheries have always been an important focus of the MSC's work. In 2001, the cockle fishery in the Burry Inlet estuary near Swansea in South Wales became one of the first small-scale fisheries in the world to achieve MSC certification, and the fifth fishery overall. The announcement came a few months after the MSC's fourth birthday, and just 13 months after the first large fishery became MSC certified. Since then, the number of small-scale fisheries in the program has risen steadily. In 2019, 16% of certified fisheries in the program are small-scale.

The 62 small-scale fisheries in the program span 22 countries, from Greenland, Canada and Russia in the north to Chile and Australia in the South. With 9 certified small-scale fisheries, Canada tops the list (15% of the total) followed by Russia, the UK (both 6, 10%), Sweden and the USA (both 5, 8%). Just over half (12, 57%) of the countries with a certified small-scale fishery have just one. A multiple number of other fisheries in the program are a mix of large and small-scale fisheries.

Changes on the water

Certification doesn't just recognise fisheries with a good record on sustainability. It also

drives real improvements on the water, from protecting vital habitats and rebuilding stocks to minimising bycatch.

Many small-scale fisheries have been compelled to make changes to increase the sustainability of their practices, creating numerous examples of improvements. For example, since becoming the first freshwater fishery in the world to achieve MSC certification in 2006, the pike-perch fishery in Lake Hjälmaren, Sweden, has successfully reduced its bycatch of non-target species through the introduction of trap escape panels (page 26).

Economic and social impacts

The impacts of certification are often felt on the land, too. MSC certified small-scale fisheries support the livelihoods of tens of thousands globally. This isn't just through harvesting, but in processing, wholesale or other fishery-related activities too. Certified fisheries can be a vital source of employment. The short-neck clam fishery in India's Ashtamudi estuary, for example, provides a livelihood for around 4,500 members of the local community (page 12). Similarly, the Baja California red rock lobster fishery in Mexico is an important source of food and income for more than 30,000 people.

As a result of certification, small-scale fisheries often experience other economic benefits, including access to new markets and price premiums. Among these is the artisanal octopus fishery of Western Asturias in northern Spain. Here, certification has allowed fishers to access new markets in the USA and Europe, and to realise a significant price premium over non-certified rivals (page 28).

Innovation for data-limited fisheries

Small-scale fisheries often lack access to the rigorous, quantitative data that an MSC assessment requires. To address this challenge and ensure that the program and its benefits are accessible to all, the MSC developed a tool for data-limited fisheries: the Risk-Based Framework. The framework relies on information available from the fishery and information collected in workshops with fishery stakeholders. So far, around half of all certified small-scale fisheries have made use of the framework. Fully integrated into the assessment process, the Risk-Based Framework can be applied wherever it is needed. Thus, a certification body can use it for specific indicators where limited data renders scoring the fishery against the default assessment method impractical. For other indicators with sufficient data, assessment can revert to the default method.

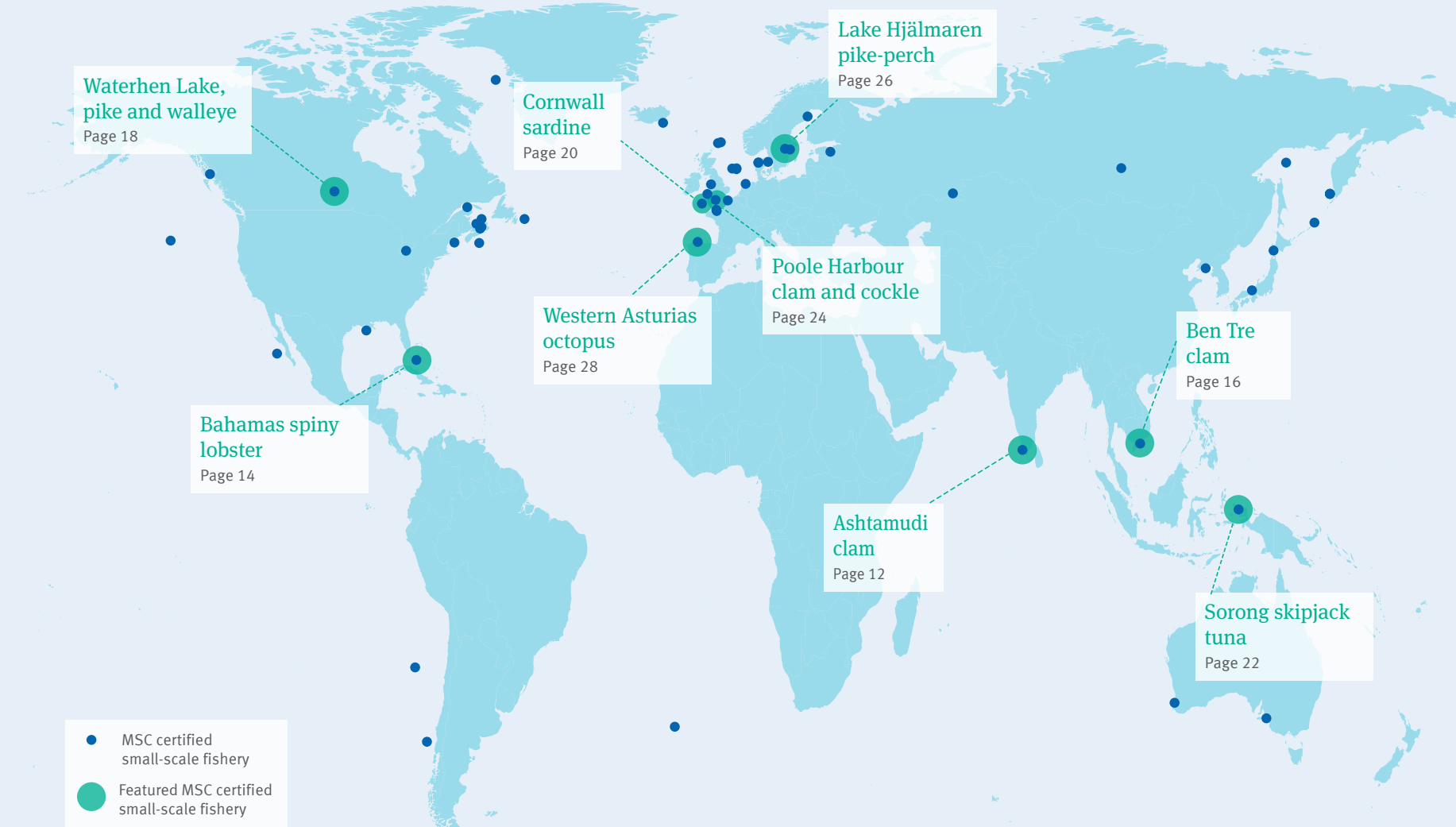
Sustainable Development Goals

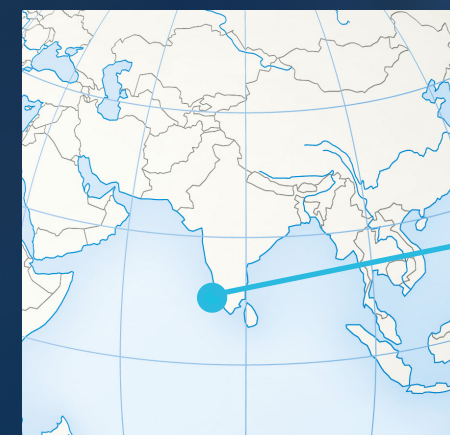
Small-scale fisheries are recognised as an international priority by the United Nations in both the Sustainable Development Goals and Food and Agriculture Organization (FAO) Guidelines for Securing Sustainable Small-Scale Fisheries. MSC certification is used by countries and organisations as part of their commitments towards delivering the SDGs and we are working with governments, fisheries, retailers, scientists and other partners from around the world to put the FAO guidelines for small-scale fisheries into practice, providing practical tools to strengthen small-scale fisheries management and indicators to measure progress.

Diving deep

The case studies in this report dive into the experiences of nine certified small-scale fisheries to better understand the benefits that certification can bring. The fisheries span eight countries and four continents. Three are located in the Global South. Two are freshwater fisheries. Four target invertebrates. Four used the Risk-Based Framework. Despite their diversity, they all share a commitment to sustainability, and all have enjoyed benefits on the journey to get there.

MSC certified small-scale fisheries





Ashtamudi lake, India

**Species**Short neck clam
(*Paphia malabarica*)**Gear**

Hand dredges, Traps

**Tonnage**

12,000 (2019)

**Workforce**

4,500 (est.)

**Risk-based
framework**

Yes

**Economic and
social benefits**Improved governance
and local agency,
price premiums,
positive cost-benefit
analysis

Ashtamudi clam – India's first certified sustainable fishery

In 2014, the Ashtamudi short-neck clam fishery became the first fishery in India to become certified as sustainable.

Situated in a wetland of international importance in Southern Kerala, the fishery provides an important livelihood for around 4,500 local people. Fishers paddle dug-out canoes from nearby villages to the shellfish beds. Divers dislodge the clams from the seabed with their hands and feet or a team of two or three fishermen will use a hand-dredge from the canoe.

Over the past four decades, the fishery's fortunes have followed a familiar trajectory of boom, bust and recovery. Commercial demand for clams surged in the 1980s and by 1991 had peaked at 10,000 tonnes a year. Two years on, the figure had halved as a result of overfishing. With advice from fisheries scientists, the local fishers took action to allow stocks to recover. They closed the fishery during the peak breeding season from December to February, introduced a minimum size limit so only mature clams could be sold, and banned mechanical clam fishing.

Although these measures helped revive clam stocks, the economic value realised by fishers remained low. MSC certification was seen as a way to achieve higher value for a sustainably managed resource, as well as offering new export opportunities.

Certification was the culmination of a four year improvement programme that began with a pre-assessment of the fishery against the MSC standard to identify areas of management that needed addressing. The subsequent improvement process involved close collaboration between local fishers, the Kerala State Fisheries Department, Marine Products Export Development Authority, researchers at the Central Marine Fisheries Research Institute, local leaders and WWF-India.

Central to the fishery's improvements was the formation of the Ashtamudi Clam Governing Council, a collective of fishers, managers and stakeholders which has enabled fishery representation at regional and state levels.

An economic success story

Economic analyses have found that the benefits from certification are at least 1.8 times higher than the estimated costs¹. Since the fishery became certified in 2014, the price per kg for clam meat rose by over 300% (£3.16/kg increase) in Japanese markets with the price for whole shell-on clams also rising by 186% (£0.15/kg increase) domestically². With each fisher able to collect up to 200kg in 4-5 hours, this can translate into an increase of around £30 per day for shell on clams. However it is difficult to attribute this price increase to certification alone as other market factors may have been at play.

Clams are by far the most economically important species in the Ashtamudi estuary. Estimates place the total value of Ashtamudi's fisheries resources at £11.2 million, with clams alone accounting for £5.72 million (51%).

New markets, new fisheries

At present, the clams are largely freeze-dried, cooked & frozen or dehydrated and

exported to Japan, Australia, SE Asia and the United Arab Emirates. But the fishery also has ambitions to target the EU and to export whole clams, moves that could increase revenues by 75%, according to researchers.

Though these future benefits are yet to be realised, Ashtamudi's journey towards sustainability is already making waves, with other coastal fisheries in India, including the Nagercoil lobster fishery, expressing an interest in certification and sustainability.

1. Mohamed, K.S., Kripa, V., Narayankumar, R., Prema, D., Venkatesan, V., Malayilethu, V., Sharma, J., & Sajikumar, K.K. (2016). Assessment of Eco-labelling as Tool for Conservation and Sustainable Use of Biodiversity in Ashtamudi Lake, Kerala. The Economics of Ecosystems and Biodiversity India Initiative. GIZ India.

2. Pers. Comm. Dr. K. K. Appukutan, Rtd. CMFRI Scientist, Central Marine Fisheries Institute, India

Bahamas spiny lobster – a model of collaborative partnership

In 2018, the Bahamas spiny lobster fishery became the first spiny lobster fishery in the Caribbean to become certified, assuring consumers that it comes from a sustainable source. Taking place across 117,000km² of ocean, the fishery is estimated to earn US\$80 million annually and provides jobs to 9,000 people. While some fishers use wooden traps, most dive down to collect lobsters from casitas (“little houses”), small table-like structures placed on the seabed. This method of harvesting is incredibly selective and does not adversely impact the surrounding habitat.

In 2009, with demand for sustainable lobster tails rising in key export markets, the fishery decided to pursue MSC certification. As a major first step, it created the Bahamas Marine Exporters Association, which partnered with WWF, The Nature Conservancy and The Bahamas Department of Marine Resources to design and implement a comprehensive Fishery Improvement Project (FIP) working towards MSC certification. Over the course of nine years the FIP advanced the sustainability of the fishery to such an extent that it was able to enter full assessment and achieve certification.

Efforts to achieve MSC certification led to significant milestones in the Bahamas, including

- The creation of the Bahamas Spiny Lobster Working Group (BSLWG), a multi-stakeholder committee advising the government on fisheries management
- The enforcement of an annual closed season to allow spawning of young lobsters
- The establishment of a minimum size limit and protection for egg bearing females
- The development of a data collection and management system to monitor the status of the stock
- A peer-reviewed stock assessment
- The development of harvest control rules and a fishery management plan

- Enhancement of enforcement efforts to prevent foreign IUU fishing in Bahamas waters

Overall, the journey towards certification has helped to increase fisher knowledge, improve compliance with regulations and reduce the amount of undersized lobsters caught, allowing the fishery to improve its profile and maintain access to American and European markets demanding sustainable shellfish. And while it’s early days, certification has already opened up access to the Chinese market, driving prices to record levels¹.

Thanks to raised awareness of sustainable practices and improved management, the Bahamian lobster fishery came together and made significant achievements. The fishers and the processors can maintain their position as a primary exporter of lobster tails with the knowledge that their stocks are safe from overfishing and depletion.

1. <http://www.tribune242.com/news/2019/sep/02/china-exports-drive-record-crawfish-prices/>



Bahamas spiny lobster



Species
Caribbean spiny lobster (*Panulirus argus*)



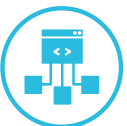
Gear
Casitas, traps



Tonnage
2,867 (2016)



Workforce
9,000 (est.)



Risk-based framework
No



Economic and social benefits
Improved communication,
maintenance of market access

Ben Tre clam – charting a sustainable course through local management

In 2009, the Ben Tre clam fishery in south-east Vietnam became the first of the region’s small-scale fisheries to achieve MSC certification.

A lack of effective management by central government in the 1980s and 1990s lead to overharvesting, threatening the future of the fishery. To help address these challenges, fishers came together to establish a cooperative system.

The cooperatives, which allow community members to collaboratively set rules and regulations, helped the fishery to chart a new, more sustainable course. Today, responsibility for clam harvesting rotates through each of the 11 cooperatives on a fortnightly basis. Within each cooperative, members are given quotas. Around a third collect clams, using only their hands and small rakes. The remainder sell their quotas to other members for mutual benefit.

All the cooperatives are actively involved in the management of the fishery, with support provided by the Ben Tre People’s Committee Department of Fisheries and the Ben Tre Department of Agriculture and Rural Development.

MSC as a benchmark for sustainable fishing

In 2005, the Government of Vietnam signed a Memorandum of Understanding with the MSC declaring their joint commitment to encouraging sustainable fishing in the country by promoting and facilitating certification³. Ben Tre was the first fishery to become certified in the country as a result of the initiative.

In order to meet the requirements of the MSC standard, fishers established closed areas where harvesting is prohibited, improved data collection and reporting, and banned the harvesting of clams below a certain size.

A locally elected ‘clam committee’ now consults the local government to agree fishery management strategies each year. Newfound motivation has also seen fishers attend training workshops on environmental management.

Socio-economic rewards

Certification, which was supported by WWF-USA and the Resources Legacy Sustainable Fisheries Fund, not only increased local empowerment, it also helped bring economic benefits. Harvesting clams at sustainable levels regulated market supply, boosting prices. In one area, effort decreased by 22%, but total value at landing increased by 165%, significantly increasing the value of the fishery. Another benefit has been access to new markets, particularly Europe, where rising demand for ecolabelled, shell-on clams (which require minimal processing) has translated

into higher profits for the fishery and higher wages for cooperative members. This in turn has led to increased interest in certification from fishers in other parts of Vietnam.

And the rewards haven’t only been financial. The building of watch towers and the introduction of a fisher ID card system has seen theft in the fishery fall to virtually zero, while profits have been invested in the building of a new access road.



Species
Lyrate hard clam (*Meretrix lyrata*)



Gear
Hand gathered



Tonnage
4,341 (2014)



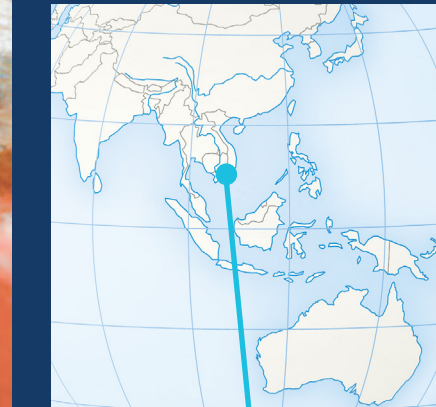
Workforce
14,943



Risk-based framework
No



Economic and social benefits
Local empowerment, streamlined governance, price increases, access to new markets, higher wages, new access road



Ben Tre, Vietnam

³ http://www.panda.org/wwf_news/?uNewsID=180081

Manitoba pike and walleye – new markets for a Canadian treasure



Species

Northern pike (*Esox lucius*), Walleye (*Sander vitreus*)



Gear

Gillnets



Tonnage

41 (2018)



Workforce

60 (est.)



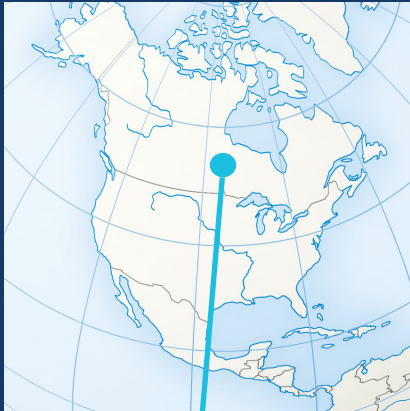
Risk-based framework

Yes



Economic and social benefits

Local empowerment, improved governance, access to new markets, higher employment



Manitoba, Canada

In 2014, the Waterhen Lake walleye and northern pike gillnet commercial fishery in Manitoba, Canada, became the first freshwater fishery in the Western Hemisphere to become certified.

The fishery opens when ice forms on the lake between November and March. Fishers use gillnets to harvest their catch, a process that is done by hand. The lake has been fished commercially since 1931 and provides an important seasonal income for the Skownan First Nation and Métis people from Mallard, who collectively hold 17 of the 21 commercial fishing licenses.

With a strong cultural tradition of sustainable harvesting, the fishery was very much in favour of pursuing MSC certification. In 2012, the Waterhen Lake Fishermen’s Association partnered with the Government of Manitoba Sustainable Development Department, Fish and Wildlife branch, to enter the assessment process, achieving certification two years later.

Along the way and afterwards, the fishery realised a number of socio-economic benefits including market access, price premiums and improved collaboration between fishers, local government and distributors⁴.

Empowered fishers

Working in cooperation with Manitoba Fish and Wildlife officials, fishers contributed to the development of the Lake’s Fishery Management Plan and set reference points against which the sustainability of fish stocks would be monitored.

Access to new domestic and international markets

Walleye is the more iconic of Waterhen's two MSC certified species, and much of it is destined for

the US food service industry, including high-end restaurants. However for one Canadian client, Manitoba Liquor & Lotteries, sourcing local, sustainably caught fish was a priority. As a result of certification, Waterhen Lake walleye has been served in all five of its Casinos of Winnipeg restaurants, as well as meeting commercial demand internationally.

Employment opportunities

After a decade of being shuttered, in November 2015, MSC certification prompted the re-opening of the Waterhen fish shed where local catches are weighted, sorted and sold to larger distributors. This not only allowed certified fish to be separated from those caught in nearby lakes and correctly labelled, it also created a handful of jobs in the community and saved fishers time and money by cutting in half the distance they travelled to sell their harvest.

Recertification and expansion of the certificate

In 2018, the fishers of Waterhen Lake demonstrated their continued interest in the MSC by undertaking a re-assessment of Waterhen Lake. The reassessment led the charge to bring additional fishers, species and lakes into a new MSC assessment with the assistance of the Manitoba Fish and Wildlife officials and funding support from the federal Crown-Indigineous Relations and Northern Affairs department. With demand for its sustainable catch continuing to rise, and relationships with the provincial government going from strength to strength, Waterhen Lake continues to be a model of collaborative partnership between fishers, local leadership and the province.



⁴Wakamatsu & Wakamatsu, 2017 <https://www.sciencedirect.com/science/article/pii/S0308597X16308260>

Cornwall Sardine – fishing for future generations

Cornwall, a county in the southwest of the United Kingdom, has a proud tradition of sardine fishing dating back nearly 500 years. Over the centuries, the importance of the fishery has waxed and waned. It peaked in mid 1800s and was broadly in decline until the 1990s, when it underwent a renaissance. Landings have been growing ever since, rising from 7 tonnes in 1997 to almost 4,000 tonnes two decades later.

Today, the fishery consists of fifteen small boats catching sardines with purse seine nets. The season usually begins in July with the arrival of the sardines in Cornish waters, and lasts until January. Vessels put to sea from Newlyn, Mevagissey & Plymouth and fish traditional grounds within six nautical miles of land. Once caught, the sardines are put on ice to optimise freshness and quality, and sold to fish processors or merchants either at a fish market or directly from the vessel.

The fishery is run by the Cornish Sardine Management Association (CSMA), a partnership between the owners of the fifteen vessels, and four local seafood processors. The members collectively catch and process almost all of the sardines caught in the area.

The Association was set up in 2004 and works closely with other stakeholders, including the Cornwall Inshore Fisheries and Conservation Authority and Cefas, the UK government’s fisheries research service.

With support from British retailer Marks & Spencer and industry body Seafish, the fishery underwent a trial assessment in 2008 under the MSC’s Risk-Based Framework, an initiative to help data-limited fisheries to achieve MSC certification. Certification was subsequently awarded in 2010, and recertification followed in 2017. Over this period, several positive outcomes emerged

- The development of a new code of conduct that:
 - Promotes safe working conditions
 - Limits the fishery to 15 vessels, each not exceeding 15m in length.
 - Sets a maximum weekly catch limit of 210 tonnes per vessel.
 - Promotes handling and processing practices that minimise environmental impacts and waste.

- The awarding of EU protected status, ensuring that Cornish sardines are legally protected against imitation throughout the Union
- The introduction of detailed logbooks to capture weights of individual species caught and retained per haul, discards, cetacean and seabird interactions and market-related information.
- The development of the Fisheries Science Partnership, a project bringing together fishers and other key stakeholders to better understand stock health.

Certification has been particularly important for gaining and maintaining access to UK and overseas markets. And while the fishers themselves are yet to enjoy a price premium for fishing sustainably, demand for their sardines is increasing, not only in the UK and EU, but also in places as far afield as Japan and China, where they are considered a delicacy.



Species
European pilchard (*Sardina pilchardus*)



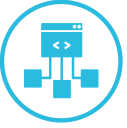
Gear
Gillnets, Driftnets, Seine Nets



Tonnage
7,467 (2018)



Workforce
100 (est.)



Risk-based framework
Yes



Economic and social benefits
Improved working conditions, improved communication, rising demand, new market access

Sorong skipjack tuna – a catalyst for change

In late 2018, the PT. Citraraja Ampat Canning, Sorong Pole and Line Skipjack and Yellowfin Tuna fishery (PT CRAC) became the first tuna fishery in Indonesia, and second in Southeast Asia, to achieve MSC certification.

Pole and line is a centuries-old technique for catching tuna that requires little more than barbless hooks attached to long wooden poles. The PT CRAC fishery comprises 35 pole-and-line vessels collectively employing 750 local fishers. It is a partnership between the local fishery cooperative and a tuna canning and processing factory in Raja Ampat, Eastern Indonesia.

Increasing demand for certified sustainable tuna from existing markets in Europe and the USA prompted the fishery to enter certification. The aim of certification was not only to demonstrate sustainable fishing practices, but also to ensure commercial relationships long into the future.

The certification process led to improvements in several areas, including fisher training and stakeholder collaboration, and has also helped to strengthen the management of Indonesian fisheries more broadly.

International collaboration

The Indonesian Ministry of Marine Affairs and Fisheries (MMAF) has agreed to work with the fishery to implement the changes needed to address the conditions of certification. These improvements will see the government and other member states of the Western and Central Pacific Fisheries Commission collaborate to promote effective harvest strategies for skipjack and yellowfin tuna.

Access to training

During the certification process and subsequently, fishers have received training in tuna species identification and data collection methods in order to improve monitoring processes onboard vessels.

A catalyst for change

To help meet its obligations under UN Sustainable Development Goal 14 (Life Below Water), MMAF is committed to increasing the number of sustainable fisheries in Indonesia. Following the success of the PT CRAC fishery, it has set a target for eight further tuna fisheries to enter MSC certification in the next year and has recently signed a Memorandum of Understanding with the MSC to help facilitate and promote certification.

Because the certification was awarded only recently, it's too soon to determine what the economic and social impacts will be. But early signs are encouraging. While price premiums are yet to be realised, major retailers including Sainsbury's in the UK and Migros in Switzerland have already committed to sourcing the certified product, and it is hoped that certification will boost sales and local employment⁵.



Species

Skipjack tuna
(*Katsuwonus pelamis*),
Yellowfin tuna (*Thunnus
albacares*)



Workforce

750



Gear

Hooks And Lines



Risk-based framework

No



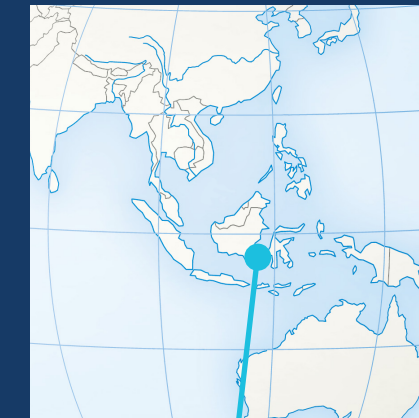
Tonnage

3,190 (2016)



Economic and social benefits

Improved
communication and
collaboration, new
market access



Sorong, Indonesia

⁵ <https://www.theguardian.com/environment/2019/jan/15/one-fish-at-a-time-indonesia-lands-victory-tuna-msc>

Poole Harbour clam and cockle – working together, improving together

In 2018, the Poole Harbour Clam and Cockle fishery became the first in the world to achieve certification against both the MSC’s Fisheries Standard and UK industry body Seafish’s Responsible Fishing Scheme (RFS).

A shallow, natural inlet located in southern England, Poole Harbour has been home to shellfish harvesters for hundreds of years. Cockle fishing has been formally managed since the mid 1880s, but the clam fishery did not develop until a century later, when non-native Manila clams were introduced for aquaculture. The clams have since become naturalised and today support a small fishery with an outsized impact: estimates place its value to the local economy at more than £1.4m.

Both clams and cockles are harvested using pump-scoop dredges operated from small, open day boats, a method unique to Poole Harbour.

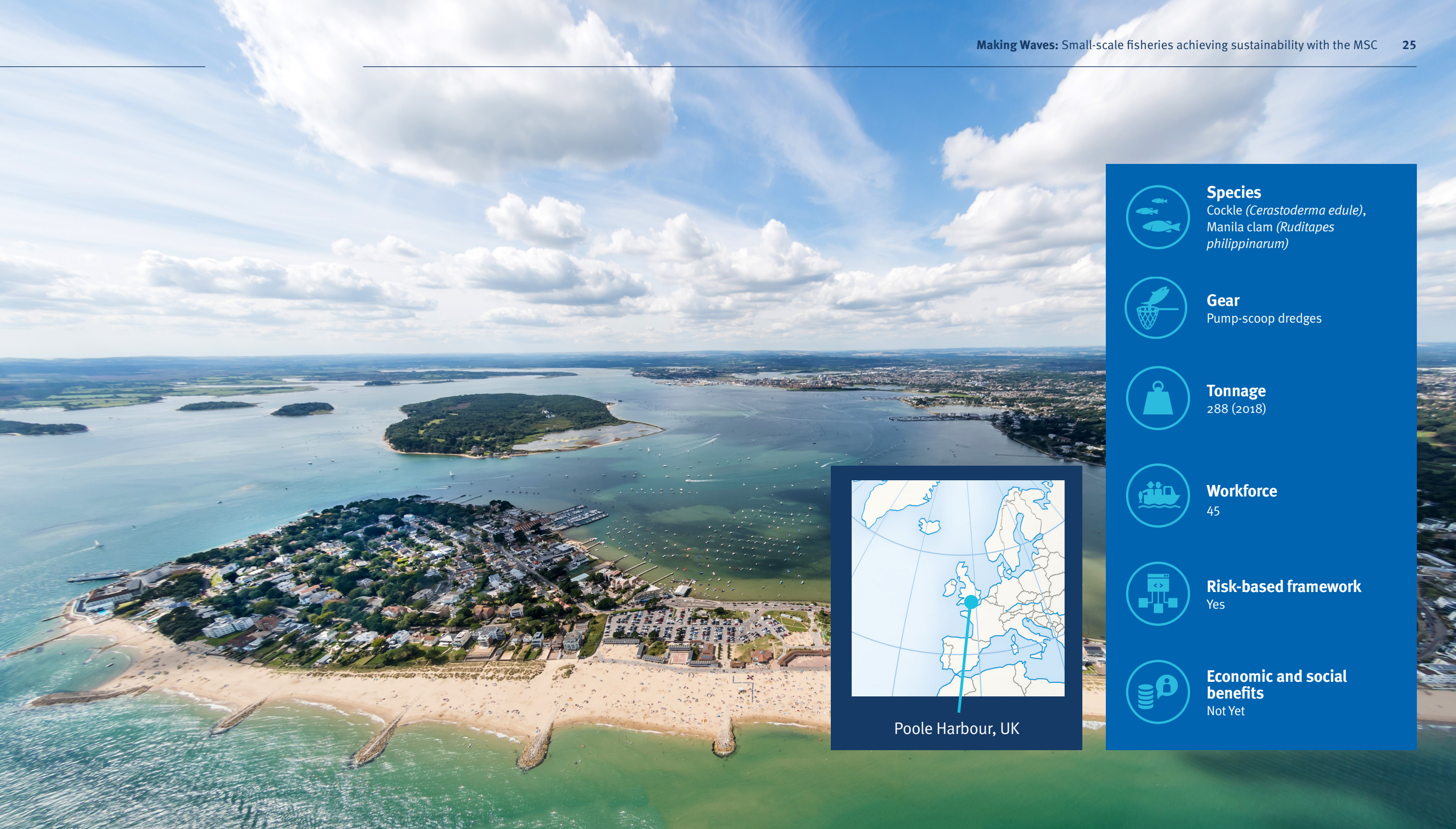
Over much of the last decade, the fishery has worked hard to put itself on a sustainable footing. The Southern Inshore Fisheries and Conservation Authority has been central to this journey, joining forces with the fishers and other key stakeholders to introduce both a Code of Practice for protection of sensitive features and a new byelaw. Taken together, these measures are safeguarding the future of the fishery by restricting entry via a

permit system, reducing illegal fishing, protecting sensitive areas, introducing a closed season and improving data collection.

Today, the 37-vessel fleet operates within a clear management framework underpinned by robust and transparent information sharing and consultation mechanisms. The targeted clam and cockle stocks are being harvested sustainably, and a significant proportion of the fishing grounds is permanently closed to exploitation.

There is more to do, of course, but to meet the conditions of its certification, the fishery has begun working to optimise its harvesting strategy, and to better understand its impacts on endangered, threatened and protected species through a formal monitoring programme.

With certification having been achieved only recently, market development remains in its infancy. At present, most of the catch is retained in the UK, with additional markets in France and Spain. But fishers hope that the double award of RFS and MSC certification will maximise the pool of sustainability-focused retailers they can supply, increasing prices, and bringing benefits to the local economy for years to come.



Species
Cockle (*Cerastoderma edule*),
Manila clam (*Ruditapes philippinarum*)



Gear
Pump-scoop dredges



Tonnage
288 (2018)



Workforce
45

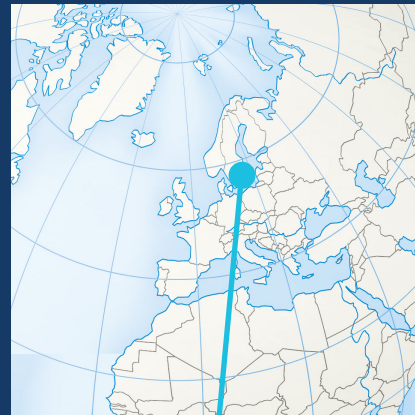


Risk-based framework
Yes



Economic and social benefits
Not Yet

Lake Hjälmaren pike-perch – collaborating to improve management



Lake Hjälmaren, Sweden

**Species**Pike-perch (*Sander lucioperca*)**Gear**

Gillnets, Traps

**Tonnage**

201 (2016)

**Workforce**

36

**Risk-based framework**

No

**Economic and social benefits**

Improved collaboration and communication, shorter supply chains, income stability

In 2006 the Lake Hjälmaren pike-perch fishery became the first freshwater fishery to receive MSC certification.

Lake Hjälmaren is the 4th biggest lake in Sweden and has been home to pike-perch fishers for 17 generations. The lake spans three different counties, all of which play a role in the management of the fishery, collaboratively assigning fishing permits each year to nearly three dozen local fishers.

Pike-perch, also known as zander, are pelagic fish found in rivers & lakes in north and central Europe. Fast predators, they can live for more than 20 years and grow to around 20 kilos.

Due to Sweden's varied climate, the fishery makes use of two different techniques, both low impact in nature. In the colder winter months when the lake is frozen, fishers set gillnets under the ice. Once the ice has melted in the summer, they switch to traps. These are set at a maximum depth of 5m to prevent overexpansion of fish swim bladders, which can cause them to float to the surface and be eaten by birds.

In the early 2000s, when fishers noticed that catches were starting to decline, they promptly took action, increasing the minimum landing size from 40 to 45cm, the minimum mesh size of the nets from 5 to 6cm, improving handling methods,

and introducing a closed season to protect spawning stock.

These changes helped the stock to rebound, and with this success under its belt, MSC certification was a natural next step for the fishery.

The certification process delivered several positive changes

- **The development of a major research collaboration** between the fishery and scientists in Stockholm has allowed stock reference points to be developed, and monitoring of juvenile fish, other bycatch, and bird mortality to be introduced.
- **The establishment of a fish auction in Stockholm** where fishers can sell their catch. While not every fisher makes use of the facility, its introduction has helped to shorten supply chains and maximise sale prices for those who do.

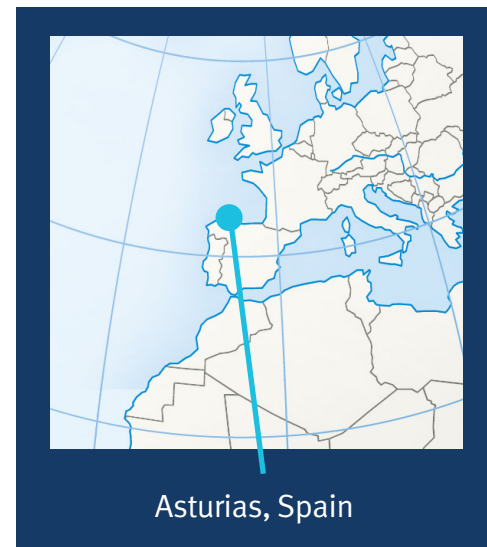
Since its initial certification more than a decade ago, the fishery has been recertified twice more. Certification has opened up access to markets in Germany, Austria and France. And now others have taken notice of Hjälmaren Lake's success and are charting sustainable courses of their own, chief among them the pike-perch fisheries in the nearby lakes of Mälaren and Vänern, which became MSC certified in 2017.



Western Asturias octopus – a small fishery doing great things



Sunrise Landscape at Viavelez fishing port of Asturias © Jorge Gallego



Asturias, Spain



Species
Common octopus
(*Octopus vulgaris*)



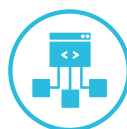
Gear
Traps



Tonnage
34 (2015)



Workforce
78 (est.)



Risk-based framework
Yes



Economic and social benefits
Local empowerment,
new market access,
price premiums

In 2016, the Western Asturias octopus fishery of north-west Spain became the first such fishery to be certified to the Marine Stewardship Council Fisheries Standard.

Based in the Navia-Porcía region, the 31-boat fishery is entirely small-scale in nature, with a catch of around 50 tonnes per year. Fishers from four artisanal associations use traps to harvest the common octopus (*Octopus vulgaris*), a socio-economically important species in many coastal towns in the region.

Certification was the culmination of several years of hard work by the associations and other key stakeholders, including the regional fisheries department. Along

the way, a number of positive social and economic changes were realised.

- The four fishing associations merged to create a single entity, ARPESOS. This has improved decision making and empowered fishers at the local level to contribute to broader fisheries governance. Recommendations by ARPESOS to improve the setting of fishery-specific objectives were recently incorporated into the regional legislation.
- As ARPESOS, fishers have also reorganised the auction process, gaining more control of the first sale process which has resulted in better prices, longer-term contracts

and access to new markets. Data gathering, triggered by the conditions of improvement placed on the fishery, highlighted weaknesses in the enforcement capacities of the regional government. The regional government moved to bolster its enforcement capacity, purchasing a new patrol vessel and exploring the use of surveillance drones.

- Certification itself has allowed the fishery to access new markets in the USA and Europe, with certified fishers realising a significant price premium over non-certified rivals.
- Certification has also prompted the regional government to mobilise funds

to facilitate the development of Harvest Control Rules by researchers at the University of Oviedo. Such rules are a condition of recertification.

However, the certification process has not been without its challenges. The short-lived nature of the target species makes it difficult to assess the health of the population using conventional stock assessment tools. Having had the initial certification funded by the European Maritime and Fisheries Fund, the cost of annual audits and future recertification may pose a financial challenge to what is a relatively small fishery. That said, MSC certification recognises the region's commitment to a sustainable future.



Widening the net

Certification is an effective tool for seafood sustainability in small-scale contexts in both the Global North and South. This report demonstrates how MSC's two-decades-long engagement with small-scale fisheries has not only provided environmental improvements, through increased stock levels and reduced ecosystem impacts, but economic and social benefits too.

As of 2019 there are over 60 MSC certified small-scale fisheries, supporting over 80,000 people around the world. The nine fisheries featured here alone support the livelihoods of nearly 30,000 people, and collectively land 27,000 tonnes of seafood each year.

The experience of more mature fisheries shows that MSC certification opens up new markets and can deliver price premiums. Compelling examples of this include the Western Asturias octopus

fishery in Spain (page 28), where certification has allowed fishers to access new markets in the USA and Europe, and the Ben Tre clam fishery in Vietnam (page 16), where value at landing increased by 165% following certification. For fisheries that have only recently achieved certification, such as the Bahamas spiny lobster (page 14), Poole harbour clam and cockle (page 24) and Sorong skipjack tuna (page 22) fisheries it is too early to determine the full extent of economic and social changes, but here too the environmental benefits are evident.

Our report makes clear that small-scale fisheries encompasses a huge diversity of practices and contexts, sustaining hundreds of thousands of people in both the Global South and North. Supporting sustainable practices requires a flexible approach to, and understanding of, differing gears types, target species, processes and markets. But despite these

differences, we find a shared commitment to future generations and a recognition that this is best achieved through collaboration and partnership.

On their journeys towards sustainability, many fisheries form or strengthen multi-stakeholder committees, councils or associations, including those in India (page 12), the Bahamas (page 14), Vietnam (page 16), Canada (page 18) and Spain (page 28). Some also collaborate with researchers or processors to deliver sustainable outcomes, better data and improved decision making, as shown by those in the UK (page 20), Indonesia (page 22) and Sweden (page 26).

Around the world, small-scale fisheries are vital for the food security and the livelihoods of hundreds of millions of people. Ensuring they're well managed and sustainable couldn't be more important.

The fisheries featured here are just a small sample of those that have already attained MSC certification. They offer a window to a more sustainable future, one in which collaboration is key, and act as beacons to other fisheries in their sector.

The MSC is committed to strengthening our work with small-scale fisheries as we support their transition to sustainability. We recognise the diverse challenges facing fisheries, especially within the Global South, with many lacking the data, governance and formal management needed to meet the stringent requirements of the MSC Standard, or simply unable to afford the cost of assessment.

Currently only a small proportion of the world's small-scale fisheries are MSC certified, but we are working hard to change this. Our ambition is to significantly increase the number that are benefiting from engagement with the MSC program.

To make this a reality, we are continuing to consolidate and improve the tools, support and guidance we offer to fisheries on our Pathway to Sustainability program. We are also exploring new approaches for assessing mixed species fisheries, and working to develop new methods for those with data limitations.

There is no time to lose. As the ocean crisis deepens, we need to move faster to ensure that all small-scale fisheries become sustainable.

But the MSC cannot solve overfishing alone. To achieve our vision of oceans teeming with life and seafood supplies safeguarded for this and future generations, we need urgent, large-scale action from across the seafood industry. Collaboration and communication will be central to this endeavour too. We can make sure that all small-scale fisheries globally are on the pathway to sustainability, but only if we act together.



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