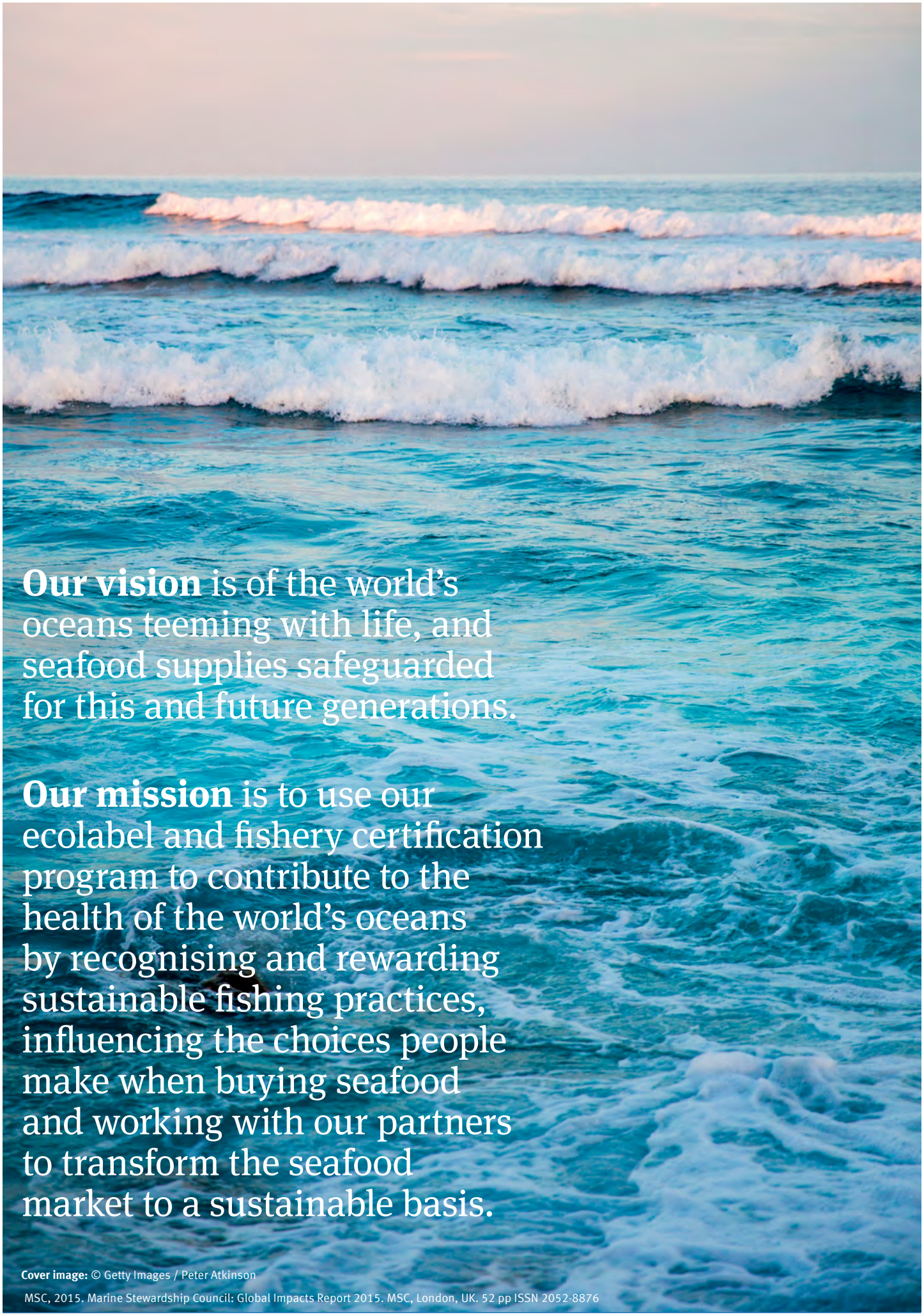
Marine Stewardship Council

Global Impacts Report 2015



Our vision is of the world's oceans teeming with life, and seafood supplies safeguarded for this and future generations.

Our mission is 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.

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In keeping with the growing expectations and demands from a spectrum of stakeholders with interests in the state of the world's oceans, the MSC is proud to present its third Global Impacts Report.

Foreword

Building upon the short series of reports that commenced in 2013, this edition presents the most up to date indicators of the MSC program. The performance indicators used were developed through public consultation and were designed to show how the MSC program is meeting its sustainability and strategic objectives. They include indicators of the MSC's geographic coverage and activity; the environmental performance of MSC engaged fisheries relating to stock status and management; impacts to endangered threatened and protected species; habitat and ecosystem improvements; and commercial activity involving MSC ecolabelled products. The indicators cover a broad range of MSC activities and influence.

Our first report, published in 2013, demonstrated that almost all fisheries in the MSC program had made significant improvements to their operations. The current report shows that such trends are continuing.

Industry and consumer awareness of the MSC's role in facilitating positive change is increasing. Concern about the impacts of fisheries, the provision of sustainable seafood and the ongoing supply of other marine products has led to an enhanced role for the MSC. Improvements are seen in target stock sustainability and management and the impact of fisheries on the wider ecosystem, for example non-target species, endangered, threatened and protected species, and habitats. In total, 319 fisheries, representing 11% of global wild capture, are currently certified or in assessment. These fisheries are amongst the leaders in supplying sustainable seafood to consumers.

Although there are still many fisheries that are yet to be certified, a significant proportion of these are seeking engagement with the MSC and could gain certification in the future. Some are involved in Fishery Improvement Projects: multi-stakeholder initiatives designed to support a fishery to achieve sustainability goals. The MSC continues to promote its Benchmarking and Tracking Tool (BMT) to help small scale and developing world fisheries improve their practices in a structured way which can help them to ultimately reach the MSC Standard.

The MSC's Monitoring and Evaluation program continues to actively engage with the ISEAL Impacts Code of Good Practice for Assessing the Impacts of Social and Environmental Standards. In 2014 the Monitoring and Evaluation program successfully passed an independent review of the ISEAL Impact Code, which was formally approved by the ISEAL Membership Committee. 2015 will see MSC functional areas assessed against an updated ISEAL code.

It is important to recognise that although the MSC provides a pathway to seafood sustainability, it does not itself cause improvements to happen in fisheries. Sustainability is ultimately a function of civil society and the provision of sustainable seafood depends upon the actions of many stakeholders. The MSC works directly with fisheries, the seafood sector and consumers and interfaces with environmental NGOs, other standards setters, funders and governments.

These many stakeholders also contribute to consultations on the MSC Standards. During 2014 the MSC released a new version of its Fisheries Standard; a new version of the Chain of Custody (CoC) Standard was also released in early 2015. I congratulate and thank all those who have contributed to individual fisheries and the MSC program. Their strong support will ensure that we have sustainable fisheries now and for future generations.

Dr David Agnew, Director of Standards

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In 2011, the MSC began to systematically monitor and evaluate the impacts of sustainability certification on global fisheries, and monitor the integrity of seafood supply chains.

Executive summary

Monitoring and Evaluation activities have resulted in the creation of extensive databases which form the foundation of Global Impacts Report (GIR) indicators. The ongoing series of reports, first published in 2013, provide information about the MSC program in terms of its impact, growth and geographical expansion. They demonstrate benefits to the environment and fisheries management through the achievement and maintenance of MSC Standards for sustainability and traceability. In addition, the reports aim to provide the scientific foundation for a transparent, impartial and consistent evaluation of the MSC's effectiveness in delivering its mission and vision.

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Key findings from this report include:

- The number of certified fisheries has increased every year since the inception the MSC in 1997, with the greatest growth occurring between 2008 and 2014. In 2000 there were three MSC certified fisheries, in 2008 there were 40, and by the end of 2014 there were 231. A further 88 fisheries are currently in assessment. Certified and in-assessment fisheries are based in 35 countries.
- In 2014, MSC certification accounted for 8.8 million tonnes of wild caught fish, representing 10% of FAO global wild capture landings. This compares to 6.6 million in 2012 and 8.2 million in 2013.
- The proportion of fisheries in the MSC program that have a stock status at or above best practice has increased from 80% in 2009 to 94% in 2013 and 95% in 2014. The remaining 5% of certified fisheries have stock statuses above biological limits of sustainability and are subject to strict time-bound improvement plans to reach best practice.
- Four fishery stock status action plans for improvement were completed in 2014 with 16 completed over the last three years.
- The proportion of fisheries in the MSC program with habitat and ecosystem impacts at or above best practice has increased from 75% in 2009 to 83% in 2013 and 86% in 2014. The 38 action plans completed since 2008 have led to improvements in understanding of fishing impacts on habitats, and resulted in the mitigation of impacts through changes in gear use and the creation of closed or reduced impact areas of the seabed.
- Since the beginning of the program, MSC fisheries have made 213 improvements in fishery specific management, 145 improvements in target stock information, and 86 improvements in the quality of information available on bycatch species, Endangered, Threatened and Protected (ETP) species, habitats, and ecosystems. In 2014, improvements were made across all areas of fishery performance, but most were made in fishery specific management (20), management of the impacts of fishing on bycatch and ETP species, habitats and ecosystems (15), and in the quality of information available on bycatch species, ETP species, habitats, and ecosystems (14).
- Ten action plans to improve non-target species status were completed by 2014 including, introduction of precautionary bycatch limits and bird scaring lines, seasonal closures, and scientific research into the effectiveness of new impact mitigation measures.
- In 2014, 90% of certified fisheries were highly unlikely to exceed nationally or internationally agreed limits on ETP species impacts. This has increased from 73% in 2009 and 88% in 2013.
- Since 2000, 1147 action plans for improvement have been developed, and 615 of these have been completed.
- The number of Chain of Custody certificates held globally has increased from 2543 in 2013 to 2791 in 2014. CoC certification is currently held by companies in 72 countries.
- The number of MSC ecolabel licences increased from 1152 in 2013 to 1236 in 2014. Germany, the UK, the Netherlands and the USA continue to be the countries with the most licences. MSC ecolabelled products are available in 97 countries.
- Nineteen MSC fisheries are based in developing countries accounting for 8% of the total number of MSC-certified fisheries. Ten of these are in Latin America, five are in the Asia-Pacific region, three are in South Africa, and one in India. A further 12 developing world fisheries are currently in assessment, including the first fishery based in China to enter MSC assessment.

Acronyms, Abbreviations and Definitions

Acronyms

Term	Meaning	Definition
ASI	Accredition Services International	
B to B	Business to Business	
B to C	Business to Consumer	
B_{MSY}	Biomass at Maximum Sustainable Yield	Spawning stock biomass that results from fishing at F_{MSY} for a long time (ICES Acronyms and Terminology).
BMT	Benchmarking and Tracking Tool	
CAB	Conformity Assessment Body	Body that performs conformity assessment services against the MSC Fisheries and CoC Standards.
CITES	Convention on the International Trade in Endangered Species	
CMS	Convention on the Conservation of Migratory Species of Wild Animals	
CoC	Chain of Custody	All elements of a supply chain.
CSIRO	Commonwealth Scientific and Industrial Research Organisation	
ELA	Ecolabel Licence Agreement	
ETP	Endangered, Threatened and Protected Species	
FAM	Fishery Assessment Methodology	
FAO	United Nations Food and Agriculture Organization	
FIP	Fishery Improvement Project	
F_{MSY}	Fishing Mortality at Maximum Sustainable Yield	Fishing mortality consistent with achieving Maximum Sustainable Yield (ICES Acronyms and Terminology).
GIR	Global Impacts Report	
ICES	International Council for the Exploration of the Sea	
ISEAL	International Social and Environmental Accreditation and Labelling Alliance	
IUCN	International Union for the Conservation of Nature	
M&E	Monitoring and Evaluation	
MSC	Marine Stewardship Council	
MSCI	Marine Stewardship Council International	
MSY	Maximum Sustainable Yield	The largest average catch or yield that can continuously be taken from a stock under existing environmental conditions (ICES Acronyms and Terminology).
NoO	Notices of Objection	
OCI	Ocean Choice International	
P1	Principle 1 of the MSC Principles and Criteria	
P2	Principle 2 of the MSC Principles and Criteria	
P3	Principle 3 of the MSC Principles and Criteria	
PCDR	Public Comment Draft Report	
PCR	Public Certifiation Report	
PI	Performance Indicator	
tonne	1000kg	
UoA	Unit of Assessment	The target stock(s) combined with the fishing method/ gear and practice (including vessel/s) pursuing that stock, and any fleets, or groups of vessels, or individual fishing operators or other eligible fishers that are included in an MSC fishery assessment.
UoC	Unit of Certification	The target stock(s) combined with the fishing method/ gear and practice (including vessel/s) pursuing that stock, and any fleets, or groups of vessels, or individual fishing operators that are covered by an MSC fishery certificate.
VMS	Vessel Monitoring System	
WWF	World Wildlife Fund for Nature	
year	Calendar year January to December inclusive	

Worldwide, more than 730 million people rely on fisheries and aquaculture for their livelihoods and 2.9 billion people derive almost 20% of their dietary animal protein from fish (FAO, 2014).

Introduction

The Marine Stewardship Council (MSC)

A global sustainable approach to fishing is required to safeguard our fish stocks for future generations. If fishing is not carried out sustainably there will be major implications for our marine environments and the long-term health of fish stocks on a global basis. Sensitive habitats, endangered species and the marine food chain need to be effectively managed to maintain ocean health and productivity. When fisheries are poorly managed, environmental impacts may go unchecked and fish stocks can suffer. The impacts of fishing are complex, hard to measure and vary from one fishery to another. However, environmental sustainability can be and is being achieved by many fisheries through the implementation of good management practices. The MSC's mission is to encourage more fisheries to implement best practices and to become sustainable. To reward these fisheries and demonstrate their achievement, MSC certified seafood can carry the MSC ecolabel when supplied through an MSC certified supply chain.

The MSC was created in 1997 when two global organisations, WWF and Unilever, came together with the common vision of improving the sustainability of the world's fisheries. Together they founded the MSC – an international non-profit organisation set up to help transform the seafood market to a sustainable basis.

Between 1997 and 1999, the MSC consulted over 200 scientists, environmentalists and stakeholders to establish a worldwide certification system for fisheries using environmentally sustainable practices. Currently, the MSC runs the only certification and ecolabelling program for wild-capture fisheries consistent with the International Social and Environmental Accreditation and Labeling (ISEAL) Alliance Code of Good Practice for Setting Social and Environmental Standards and the United Nations Food and Agricultural Organization Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries (FAO, 2009).

The MSC works with fishers, seafood companies, scientists, conservation groups and the public to promote fisheries best practices through its certification program and seafood ecolabel. When any buyer chooses to purchase MSC-ecolabelled fish, certified fisheries are rewarded for their sustainable practices through market preference. The MSC and its partners encourage processors, suppliers, retailers, and consumers to give priority to purchasing seafood from MSC-certified fisheries and to demonstrate this through use of the MSC ecolabel.

How things looked at the start

There's a place off the coast of Newfoundland in Canada, known historically for its bountiful seas and tales of fish so plentiful, a scoop through the water with a fishing basket was enough to catch a few cod. Word of this abundance got around and by the 1950s factory fishing had arrived. By 1968, the cod catch peaked with an annual catch of 810 000 tonnes, three times the annual catch of previous years. In the early 1990s, the fishery collapsed, and the story of the Grand Banks in Newfoundland is now a cautionary tale.

How things look now

It wasn't just cod affected by overfishing in the Newfoundland Grand Banks. The story of the yellowtail flounder, however, is quite different. In 1994, a fishing moratorium on this species went into effect. Three years later, that moratorium made way for a conservative quota of 4 000 tonnes. Stocks returned to previous healthy levels and in 2010 the quota was back to its prior peak of 17 000 tonnes, due to a new emphasis on sustainable management. Ocean Choice International (OCI) owns over 90% of the Grand Banks yellowtail flounder quota and was instrumental in supporting its recovery. The company sought recognition through MSC certification, which has provided a growing customer base as more companies look to sell products bearing the ecolabel.

The MSC experience as a standard setter

In 2013, the MSC published a paper in ICES Journal of Marine Science to discuss the challenges that the MSC has faced in keeping up with developments in the science and management of fisheries, managing stakeholder expectations and designing a program that balances credibility, accessibility and improvement to move the world's fisheries towards sustainability. For full text see: Agnew, D. J., Gutiérrez, N. L., Stern-Pirlot, A., and Hoggarth, D. D. 2014. The MSC experience: developing an operational certification standard and a market incentive to improve fishery sustainability. – ICES Journal of Marine Science, 71: 216–225.

The MSC Fisheries Standard recognises and rewards sustainable fishing practices.

The MSC Fisheries Standard

The MSC Fisheries Standard is comprised of three core principles:

Principle 1 Sustainable Fish Stocks

Principle 2 Minimising Environmental Impact

Principle 3 Effective Management

Performance Indicators (PIs) within each of the three principles are scored to quantify fisheries' activities, impacts, information and management practices. This scoring allows assessment of the likelihood of delivering sustainability. The PIs are derived from the experiences of fisheries managers, scientists, and other stakeholders worldwide. Version 1.3 of the MSC Fisheries Standard contains 31 specific PIs pertaining to a fishery's performance and management. The revised Standard, version 2.0, released in October 2014, contains 28 PIs. This report is based on the utilisation of versions 1.3 and earlier of the MSC Standard, future reports will encompass findings from versions 2.0 and earlier.

Each of the MSC's Fisheries Standard 31 PIs (shown in Appendix 1) are scored on a 1-100 scale, with the 60, 80 and 100 levels defining key sustainability benchmarks. A certification pass is achieved if the average score for each principle is greater than or equal to 80, and each individual PI is greater than 60; anything below this level results in a fail. A fishery can pass with some PIs scoring less than 80, in such cases the fishery is required to develop an action plan for improvements.

This improvement process ensures that all PI scores can be raised to an 80 level, normally within five years. The fishery must implement an agreed action plan that will deliver these improvements with time-bound milestones. Assessing a fishery's sustainability is complex, but the concept is simple – fishing operations should be at levels that ensure long-term fish populations, while the ecosystems on which they depend remain healthy and productive for today's and future generations' needs.

A 'fishery' in the MSC program is named after the client's group and may include one or more 'Units of Certification' (UoC) defined by the target fish species and stock, the geographic area of operations, and the fishing method, gear and/or vessel type. Each UoC within a fishery, including the whole fishery, can either pass or fail MSC assessment. Only seafood from certified UoCs can carry the blue MSC ecolabel and only when it is supplied through a certified supply chain.

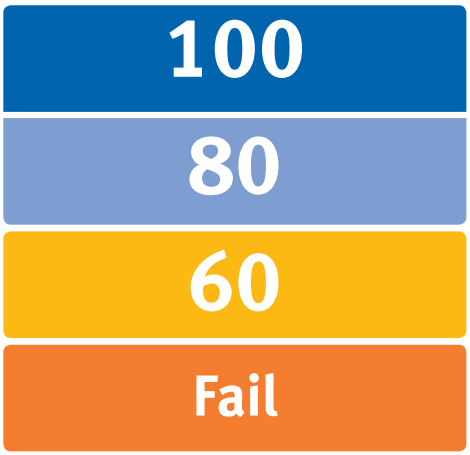


Figure 1 – Key sustainability benchmarks

A score of 100 represents the performance expected from a 'near perfect' fishery with respect to assessed PIs that measure its environmental impacts, and the effectiveness of management systems, and governance. A '100' score signifies vey high levels of certainty regarding the fishery's performance from long-term empirical evidence. There would be very low risks that current operations would result in detrimental impacts to the target stocks, non-target species and the supporting ecosystem.

A score of 80 confirms that the sustainability outcomes from a fishery's activities and management systems are performing at 'global best practice' levels and confers high levels of certainty about a fishery's long-term sustainability.

A score of 60 represents the 'minimum acceptable limit' for sustainability practice as established in the MSC's Fisheries Sandard. This limit provides assurance that the basic biological and ecological processes impacted by the fishery are not currently compromised and will not be compromised in the future. Any PI scoring between 60 and 79 within a fishery that attains certification attracts a strict time-bound improvement plan. Such improvements are designed to increase performance to global best practice as represented by a PI score of at least 80.

The MSC Chain of Custody (CoC) Standard for seafood traceability aims to ensure that the MSC ecolabel is only displayed on seafood from a fishery that is certified against the MSC Fisheries Standard.

The MSC Chain of Custody Standard

Traceability is a hot topic in the seafood industry. Mislabelling is a recognised problem and the complex international supply chain for most seafood products makes it difficult to find high quality information relating to fish provenance. At the time of compiling this report, the MSC Chain of Custody Standard was comprised of four core principles (this has changed to five principles in the new 2015 release of the Standard; the impacts of this and other changes will be included in subsequent reports).

Principle 1: The organisation shall have a management system

Principle 2: The organisation shall operate a traceability system

Principle 3: There shall be no substitution of certified products with non-certified products

Principle 4: There shall be a system to ensure all certified products are labelled

All companies in the supply chain that handle or sell an MSC certified product not in consumer-ready packaging, must have MSC Chain of Custody certification. This way every link is checked to make sure the MSC ecolabel is only displayed on seafood from a fishery that is certified against the MSC Fisheries Standard.

The MSC Chain of Custody Standard for seafood traceability was established in December 1999 and is based on existing best practice traceability standards. In August 2005, version 2.0 of the Standard came into use and in August 2011, version 3.0 of the Standard was published. The MSC revises its Standards based on the MSC Standard Setting Procedure which ensures that the process is in compliance with the ISEAL Code of Good Practice for Setting Social and Environmental Standards, and that any revision includes at least two rounds of public consultation.

To obtain Chain of Custody certification, businesses must be audited to show they have effective traceability, storage and record-keeping systems which prove that only seafood from MSC certified fisheries carries the MSC ecolabel. For example, companies have to show that they keep MSC certified fish separate from non-MSC certified fish, and that they can trace every delivery of certified fish to a Chain of Custody certified supplier.

Every company with a valid Chain of Custody certificate is given a unique certificate code. The final packer's code must be displayed on consumer-ready certified seafood products to show buyers and consumers that they are buying from an approved supplier.

Businesses that wish to obtain MSC CoC certification appoint an independent, accredited certifier to assess their business against the MSC Chain of Custody Standard.

The MSC adheres to the most rigorous international standards applicable to certification programs, including the use of third parties to assess fisheries against the Standard and, if appropriate, to award certification.

Independent and objective assessments

Whilst the MSC sets the Standards, actual assessments are performed by independent, accredited Conformity Assessment Bodies (CABs). These companies are held accountable and monitored by a separate organisation, Accreditation Services International (ASI).

To ensure rigour and objectivity, the fishery assessment process is highly transparent and is open to the scrutiny of anyone with an interest in the fishery. Relevant parties are notified of the assessment and invited to provide information and comments. The assessment is undertaken by a team of highly-qualified and independent scientists who are hired by the CAB. The assessment results are described in a series of reports produced by the CAB and the scientific team. Once certified, a fishery is subject to annual surveillance audits, and undergoes a full re-assessment every five years.

Every link in the supply chain must be independently certified by CABs against the MSC's Chain of Custody Standard. The MSC takes integrity of the supply chain very seriously. As a result consumers can trust the MSC ecolabel and be sure that any ecolabeled fish that they buy really does come from MSC-certified fisheries.

To support CoC certification, random DNA tests of seafood products bearing the MSC ecolabel are undertaken. These tests improve traceability, ensure that MSC-certified seafood products are correctly labelled and help demonstrate that products actually come from certified fisheries. The most recent DNA testing program for which results are available, conducted in 2013, examined 320 samples from retail packed products, fresh fish counters and catering restaurants in 15 different countries. Results showed that overall, the mislabelling rate for MSC-certified products was less than 1%, or just three mislabelled samples. There are plans for market based DNA tests to be conducted during 2015 and as the accuracy of DNA testing improves, it is expected that finer scale attribution of products to certified fisheries will be possible.

MSC Sustainability and Strategy Outcome Objectives

Sustainability outcome objectives – based on fishery health and the MSC's core aim:

1.1. The MSC program should encourage fisheries to make such improvements as necessary to meet the MSC's Fisheries Standard.

1.2. The MSC program should be accessible to all fisheries worldwide.

Strategy outcome objectives – how the program is working to deliver the sustainability outcome objectives:

2.1. The MSC program should be rigorous, credible, effective and efficient and the entire supply chain have high integrity.

2.2. The MSC program should grow the demand for and supply of MSC-certified fish to reward sustainable fishing practices.

The Monitoring and Evaluation program aims to achieve a clear understanding of the environmental and organisational impacts of the MSC's certification and ecolabelling activities.

The MSC Monitoring and Evaluation Program

In order to assess how well the MSC is achieving its aims, the Monitoring and Evaluation program collects empirical data that can be evaluated against the MSC's sustainability and strategy outcome objectives.

Indicators shown in this report were developed in consultation with stakeholders and measure the quantity and quality of short, medium and long-term effects of the MSC program on certified fisheries, target resources, associated ecosystems and other areas of strategic activities.

The Global Impacts Report uses graphic icons to represent each of the 22 indicators. These are grouped as either 'environmental' or 'program', depending on their related outcome objective (see grey box on previous page).

Environmental indicators (Indicators 1-13)

The environmental indicators relate to sustainability outcomes and objectives and track changes through fishery assessment and successive surveillance audits. Positive changes are indicative of improvements in fishing practices which have potential environmental, target species, non-target species, ETP species, and associated habitat and ecosystems benefits. These environmental indicators use primarily MSC fishery assessment data that is authored by third party Conformity Assessment Bodies (CABs).

Environmental indicators are grouped against the MSC's three core principles of sustainable fishery assessment:

Principle 1 Sustainable Fish Stocks | **Principle 2 Minimising Environmental Impact** | **Principle 3 Effective Management**

Program indicators (Indicators 14-22)

The program indicators relate to the MSC's strategy outcome objectives and measure the performance, impact and reach of the program. These indicators consider the number of fisheries engaged with the MSC and how well each part of the sustainability assessment, certification process and ecolabelling scheme is performing. The program indicators also measure consumer awareness of the MSC.

Program indicators are grouped under essential MSC assessment components:

Fisheries | **Chain of Custody** | **Certification process**

Ecolabelling | **Consumer awareness**

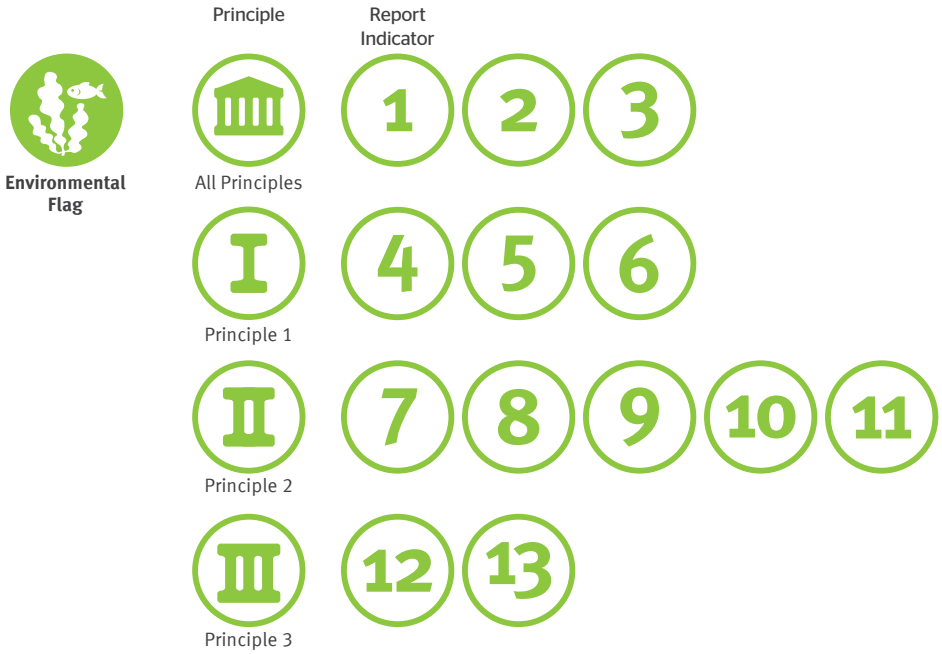
The 2015 edition of the Global Impact Report includes an update of the 22 MSC M&E indicators that provide specific measurements to determine whether the MSC's sustainability and strategy outcome objectives are being achieved.

In addition to the number of fisheries currently in the program, trend in tonnage of MSC-certified landings with respect to FAO wild capture information is included within indicator 14.

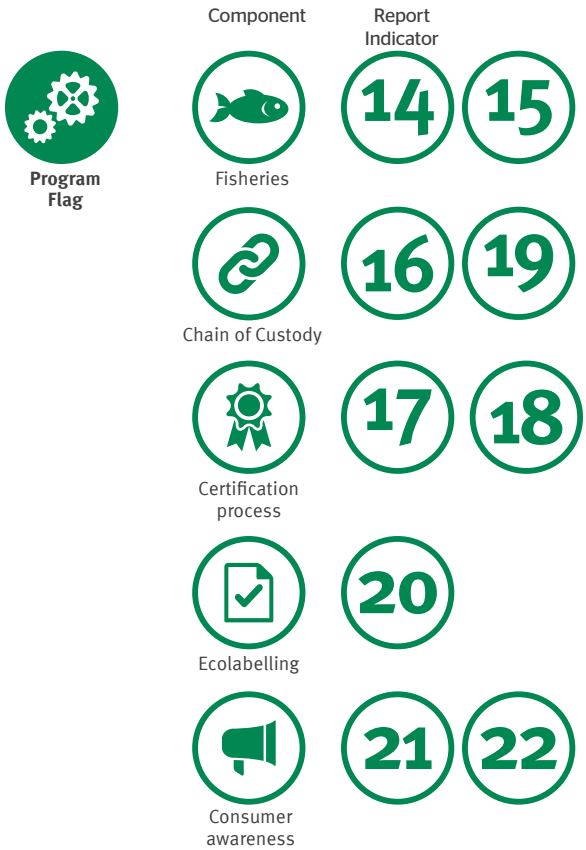
The organisational and environmental impacts of the MSC are closely related to the participatory nature of the program. Therefore, this report includes an overview of stakeholder participation in policy development and fishery assessment, as well as social media engagement and discussion within the scientific community. To provide a clearer overview of the MSC's long-term goals, outcomes and impacts, the MSC's theory of change is also presented as an infographic.

Indicator key

Environmental indicators



Program indicators



How to interpret the Global Impacts Report

- When a fishery is assessed against the MSC Fisheries Standard, a 'fishery', designated after the client's name, is scored as one or more defined Units of Certification (UoC). A 'fishery' may have multiple UoCs in varying combinations of target fish species and stock; geographical area of operations and fishing method; and gear and/or vessel type. As a result of these distinctions, each UoC can carry its own score for different PIs. To deal with the duplication of a fishery's scores due to multiple UoCs for indicators 4 to 13, the definition of a 'fishery*' (with an asterix) is based on the assumption that PI scores relating to Principle 1 are represented by client x stock only, Principle 2 are represented by client x gear only and Principle 3 represented by the client only. An asterisk (*) on 'fishery*' is used in the following text to indicate where this methodology has been applied. The sample size of fisheries* and fisheries is consequently different in the analyses of Principles 1, 2 and 3.

- The construction of the indicators 4-13 is based on the scores that are assigned in fishery assessments. From 2000 to 2008, fisheries were assessed by third party certifiers against the published MSC Principles and Criteria using specific Performance Indicators (PIs) that each certifier defined itself. In 2008 the MSC collated information from all earlier assessments and published a single set of PIs and scoring guidelines (at the 60, 80 and 100 levels – see earlier section) that all certifiers were to use. Most certifications since 2008 have used these default indicators – called the '2008 Default Assessment Tree'. Appendix 1 presents the Default Assessment Tree.

- Fisheries certified prior to the publication of the 2008 Default Assessment Tree used different PIs. In producing this report, older PIs were mapped against those in the 2008 Default Assessment Tree. Some PIs could not be matched and were therefore excluded from this analysis.

- 'Fishery' in all indicators (excluding indicators 4-13) represents the MSC definition of one fishery per client.

- All graph X-axes labelled 'Year' represent calendar years.

- Catch Data are represented in tonnes (1000kg).

- It is important to note that conclusions on improvements are related to increasing trends in PI scores assigned by Conformity Assessment Bodies (CABs) to each specific fishery during the assessment process. These are associated with the completion of the action plans for improvement that are required whenever a PI does not meet the best practice score of 80. Previous studies (MRAG 2011; Martin et al. 2012) show the presence of a statistically robust link between changes in scores and the underlying improvements 'on the water'. In addition, the participatory nature of the assessment, which includes external certifiers, independent peer reviewers, regular stakeholder engagement, fourth party accreditation and the objections procedure, assures a rigorous, robust, and consistent scoring process.

- In October 2014, version 2.0 of the Fisheries Standard was released. The new Standard incorporates an assessment tree with 28 PIs but specifically uses several of these multiple times for assessing impacts to target, retained, bycatch and ETP species. There is also enhanced provision for assessing cumulative impacts to habitats. In the reporting period of this publication, no fisheries have been assessed with the new Standard. Future GIRs will include analyses pertaining to version 2.0 as its uptake increases.

Environmental Indicators

This section relates to sustainability outcomes and objectives, and tracks changes through fishery assessment and completion of action plans. The indicators are grouped following the MSC's core principles for sustainable fishing.

Lakes and Coorong fishery © Randy Larcombe

1. Average principle scores of MSC-certified fisheries

Description

The MSC Fisheries Standard identifies 31# Performance Indicators (PIs) over three principles: (1) sustainable fish stocks; (2) minimising environmental impact; and (3) effective management. Each PI is assessed based on a scoring system where 60 is the minimum acceptable sustainable standard, 80 is global best practice, and 100 is near-perfect performance.

Outcome

The average scores for Principle 1 declined between 2000 and 2010 but have since stabilised at around 85, just above global best practice. Average scores for Principle 2 have shown the opposite trend with scores drifting upward from the low 80s recorded in 2000 to a stabilised point above the 85 mark in recent years. Principle 3 scores have been fairly stable in the high 80s since 2004 after decreasing from low 90 levels in the preceding years. These trends can be attributed to changes in the MSC requirements since the start of the program, changes in attributes of the fisheries being certified and standardisation of assessments. Longer term recording of principle scores at certification coupled to analysis of fishery improvements performed before and during assessment should further improve knowledge regarding sustainability changes in fishery activities.

Definition
Average scores for Principle 1, 2 and 3 of MSC-certified fisheries

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

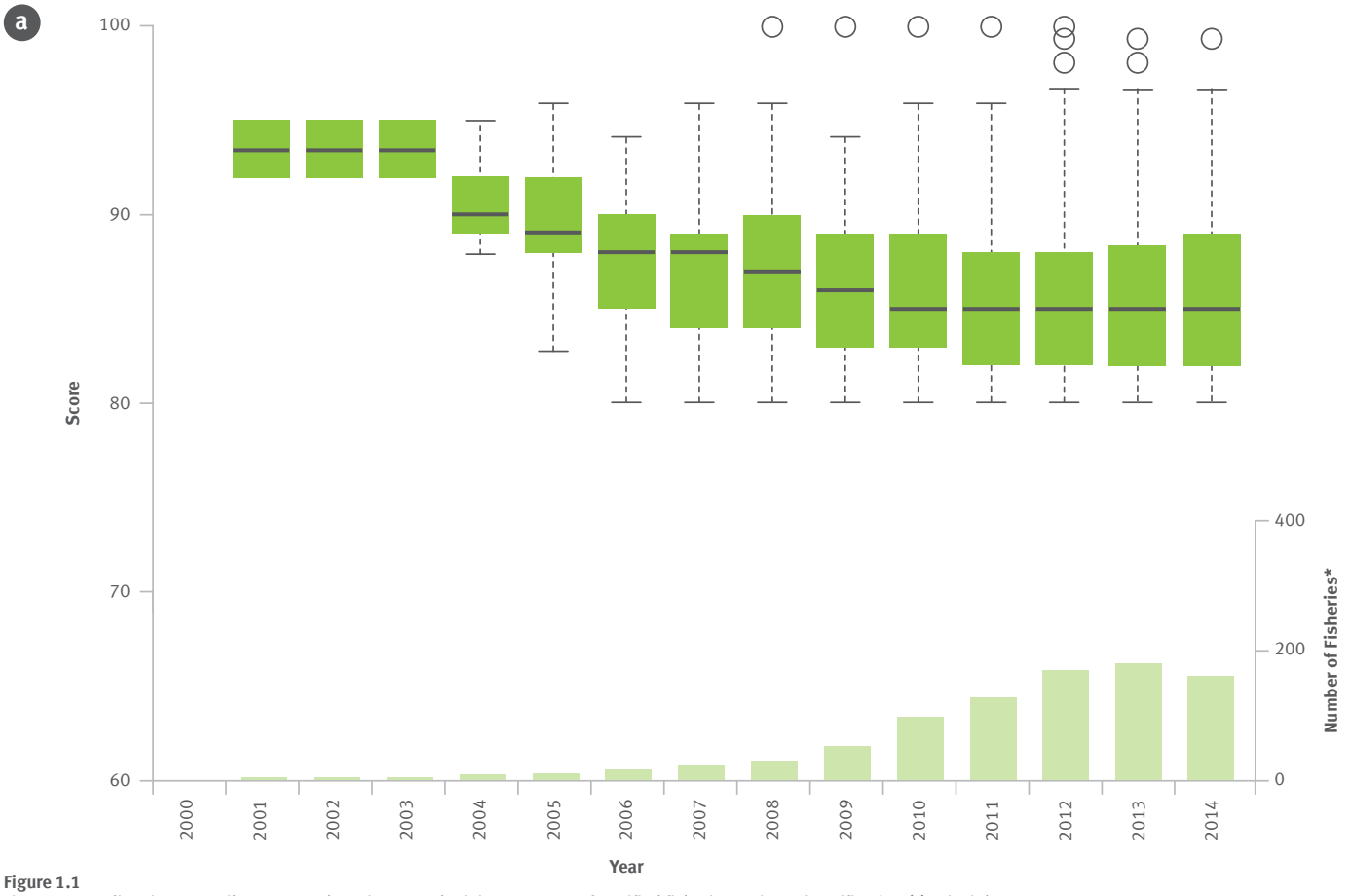
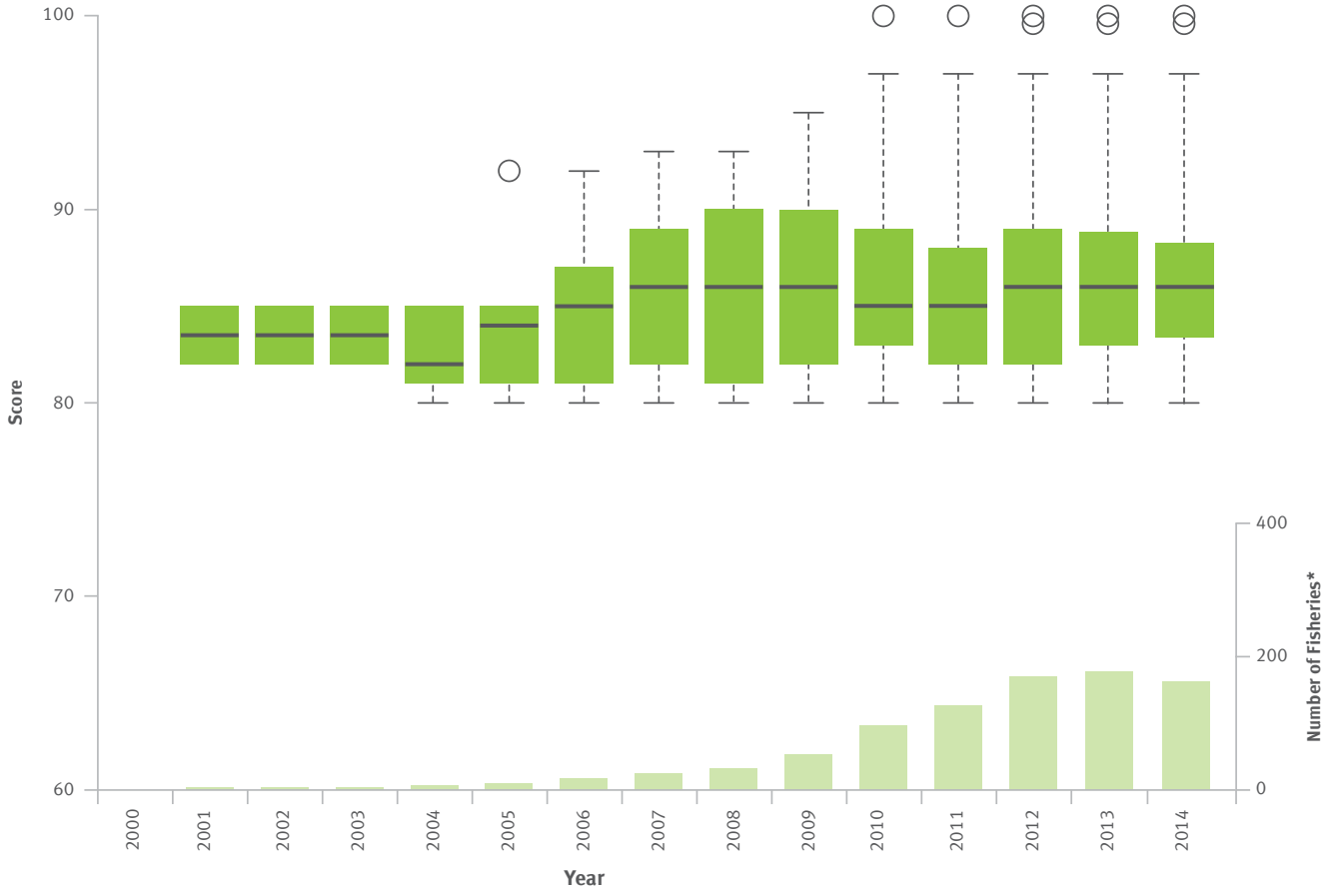


Figure 1.1
Figure 1.1 Median, interquartile range, and maximum and minimum scores of certified fisheries at time of certification (a) Principle 1: Sustainable fish stocks; (b) Principle 2: Minimising environmental impact; and (c) Principle 3: Effective management. Pale green bars represent the number of fisheries* scored by year.

Version 2.0 of the MSC Fisheries Standard, released in late 2014 has 28 PIs. This version will be implemented during 2015 and has not affected any data used in this report.

b


100
90
80
70
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Score
400
200
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Number of Fisheries*
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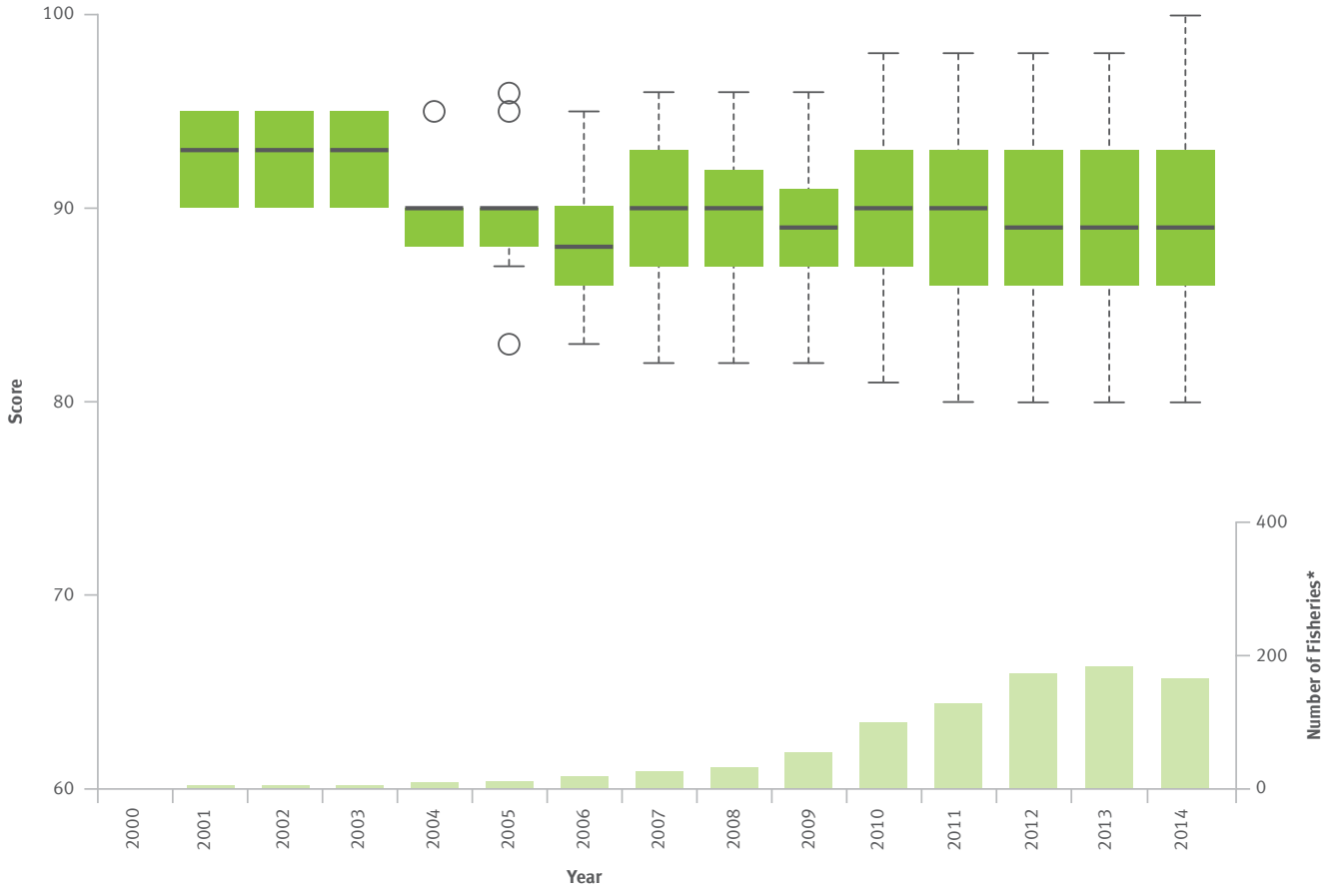
100
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Score
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Number of Fisheries*
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2014
Year

2. Action plans for improvement

Description

A critical aspect of the MSC program is to allow fisheries that meet the Standard's minimum requirements to be certified or re-certified provided that they commit to improvement action plans that result in best practice performance. When a fishery is assigned a score between 60 and 79 for any individual Performance Indicator (PI), and provided that the three average principle scores are at or above 80, it can gain certification but is required to improve performance to achieve PI scores of at least 80 (best practice) within the 5-year certification cycle. Through this process, the MSC program incentivises positive changes in global fisheries.

This indicator tracks the number of action plans developed for each PI since 2010. Note that fisheries are re-certified every five years and they may also attract new improvement action plans at any point during their certification if performance drops below a score of 80. This indicator reports the number of action plans developed at first certification and re-certifications only.

Outcome

The PI generating the highest number of improvement action plans is related to the implementation of effective harvest control rules (ca. 60 action plans). Harvest control rules define how fishing intensity is adjusted in response to the status of the stock with respect to biological reference points. In contrast, and aside from stock rebuilding, the PI with the lowest number is related to legal and/or customary frameworks (two action plans) suggesting fisheries entering the MSC program are mostly already subject to such regulation and governance. Across all three principles, Principle 2 has the most requirements for action plans, with 304 applied to 89 fisheries across 15 PIs at initial assessment (from a total of 551 action plans applied to 110 fisheries across all 31 PIs), suggesting fisheries will make most improvements related to non-target species, habitats and ecosystems. Although the number of fisheries with two or three certification cycles is still low (28 and 5 respectively), as expected, fisheries require fewer improvements after their first certification period (Figure 2.2) with a portion of these being attributable to changes to the Fisheries Standard.

Definition
Number of fishery action plans for improvements at time of first, second and third certification, sorted by Performance Indicator (PI).

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

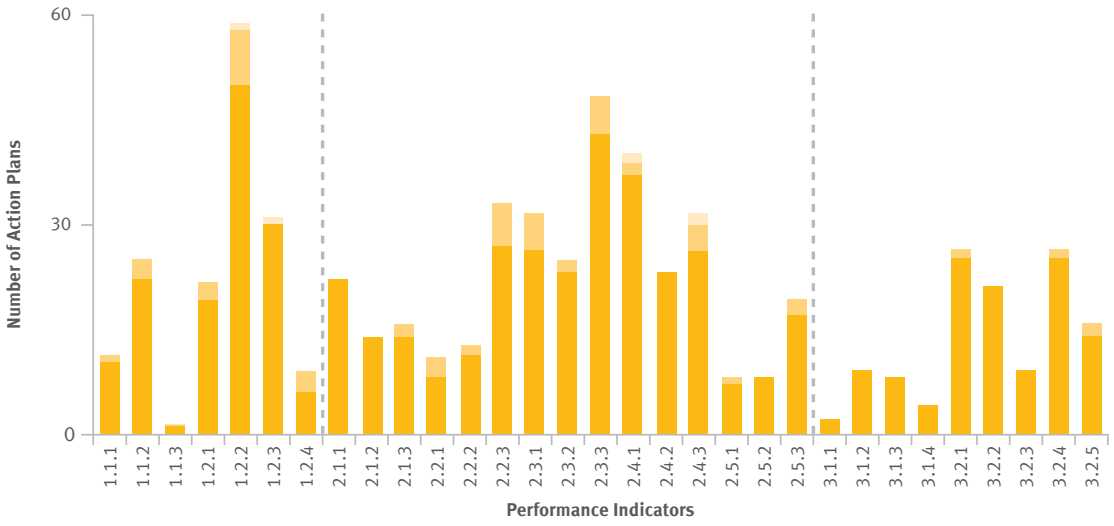


Figure 2.1
Number of action plans for improvements developed for each Performance Indicator (Appendix 1). Only fisheries assessed against the Default AssessmentTree since 2008 were used for this analysis. Dashed lines separate each principle.

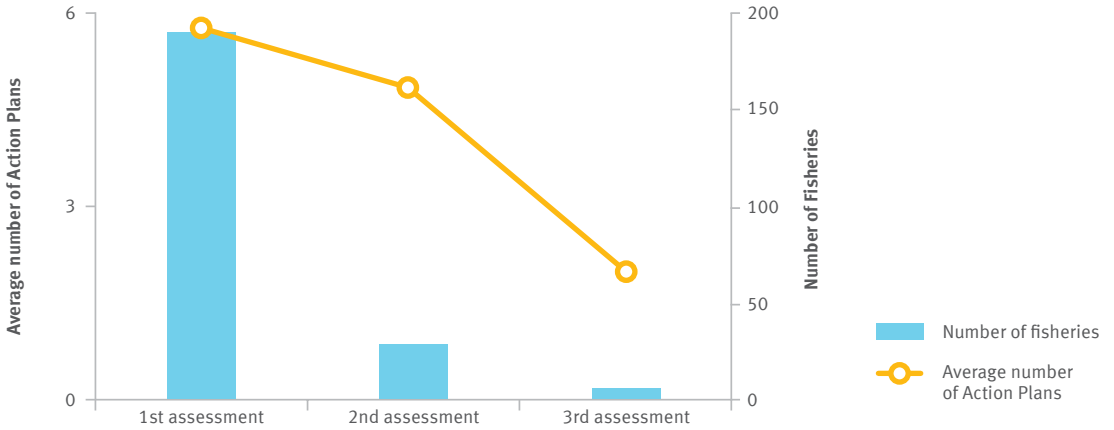


Figure 2.2
Average number of fishery action plans for improvements per fishery certification (between 2008 and 2014) grouped by assessment number 1, 2 or 3. Number of fisheries assessed: 1st assessment = 191; 2nd assessment = 28; and 3rd assessment = 5.

3. Annual improvements through completed action plans

Definition
Number of action plans completed each year and their rates of completion grouped by year of certification.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

Action plans are designed to improve performance against the MSC principles and Criteria and may include a reduction in uncertainty, improvement in processes or outcomes and/or reduction in management risks. Although the MSC is not prescriptive on the actions to be taken to achieve the required improvements, the Standard requires clear and defined time-bound milestones for each action and the associated increase in scores to 'best practice' levels. Figure 3.1 shows the number of action plans developed per year and their various statuses as at December 2014.

Normally action plans should be completed within five years, but in exceptional circumstances longer is allowed. Exceptional circumstances can include delays due to natural ecological functions and response times, for instance when stock biomass cannot increase fast enough; or when extra time is required for relevant research to be funded, undertaken and published. Sometimes, when a fishery is re-assessed against a different version of the Standard to the one that was used when it was first assessed, it may transpire that existing conditions are no longer appropriate and they may be redrafted. Finally, when fisheries withdraw or are suspended they are not expected to continue making improvements, and consequently they are not included in this analysis.

The rate of action plan completion indicates the speed at which fisheries adapt to achieve best practice.
MSC fisheries develop different action plans depending on which performance areas require improvement to best practice; these actions take differing amounts of time to complete. For example, collecting and analysing existing data on the diversity and relative impact of fishing on bycatch species may take one year, but designing and implementing an entirely new data collection program to survey bycatch species may take three or more.

Outcome

In total, 615 action plans for improvement have been completed by certified fisheries. A further 495 improvements are ongoing with completion expected by 2019. Fisheries certified between 2000 and 2010 have completed 436 of the 485 action plans developed (90%). Forty-nine action plans have been delayed or redrafted under exceptional circumstances (Figure 3.1). For example, 15 action plans were developed by a fishery in 2007 under a specific set of criteria developed by the certification body. These action plans were carried over into a new assessment in 2012, and collapsed into a new smaller set of action plans under the updated MSC Standard (Default Assessment Tree).

On average, MSC fisheries complete 9% of their action plans for improvement in the first year following certification, 33% in the second year, 54% in the third year, and 91% in the fourth year (Figure 3.2). The wider error bars around years two and three reflect the range of timescales that different action plans take to complete. By the fourth surveillance audit almost all improvements have been made across all fisheries. As explained above, a small number of fisheries are not able to make 100% of the planned improvements within the expected time scale.

The sample size of fisheries that have completed improvements in year one of the certification cycle is larger than the sample size for year two or year three etc. because more recently certified fisheries have yet to reach their second or third surveillances. Thus the average percent of action plans completed in year one includes fisheries certified between 2004 and 2014, but the average for year four includes only fisheries certified between 2004 and 2010. Table 3.1 shows the number of fisheries certified in a given year which have completed action plans for improvement, and the number of action plans completed by those fisheries.

Table 3.1
The number of fisheries certified in a given year which have completed action plans for improvement, and the number of action plans completed by those fisheries.

Year of Certification	Number of fisheries	Number of Action Plans Completed
2004	4	18
2005	4	53
2006	6	30
2007	5	67
2008	9	22
2009	18	47
2010	40	189
2011	38	119
2012	57	52
2013	5	8

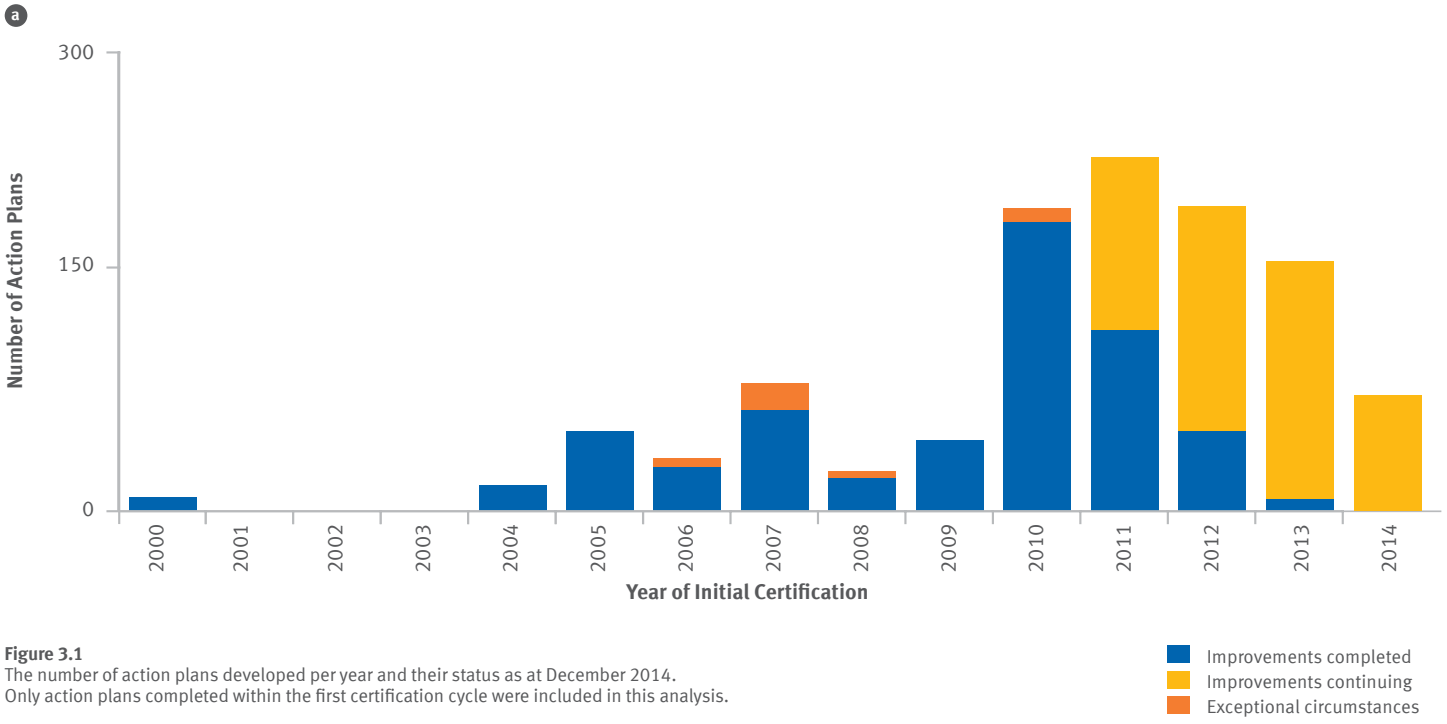


Figure 3.1
The number of action plans developed per year and their status as at December 2014.
Only action plans completed within the first certification cycle were included in this analysis.

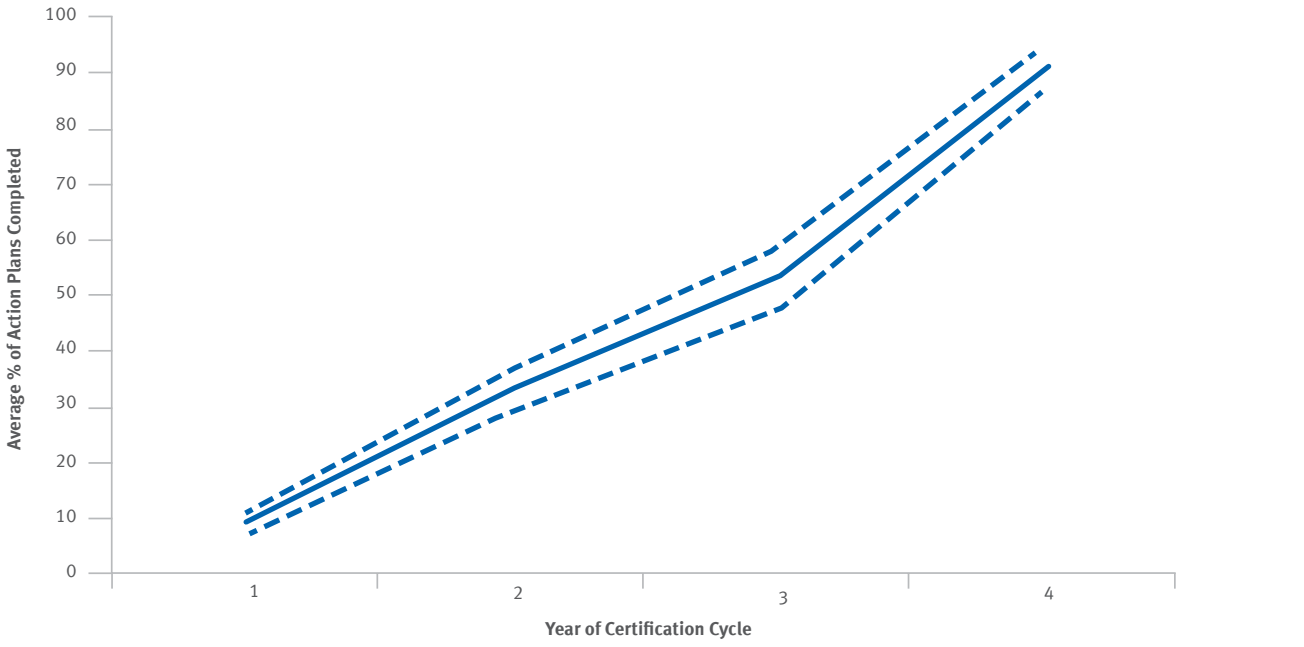


Figure 3.2
Average rate of completion of action plans by fisheries in the four years following the initial certification. Dashed lines represent the standard error above and below the mean.

4. Target stock status

Description

In order to be considered environmentally sustainable, a fishery resource must be exploited no faster than the rate at which it can replenish itself. Under international agreements and many national laws, fish stocks should be managed at the level that can support long-term Maximum Sustainable Yield (MSY). For a fishery to be MSC-certified, the fish stock should be either at-or-around, or above B_{MSY} (Biomass at maximum sustainable yield) based population reference points or a proxy similar in intent and outcome to receive a score of 80 or above. Fisheries targeting populations at lower levels can be certified as long as stocks are still within biological limits (above the level where recruitment could be compromised) and they commit to, and demonstrate, stock recovery within a specified timeframe. This represents the MSC's minimum acceptable level of sustainability performance. These fisheries will receive a score between 60 and 79, and are required to develop an action plan for improvement to bring stock status up to B_{MSY} levels. A completed action plan means that the stock health has improved within a pre-defined period of time. If there is a high level of certainty that a fishery is maintaining stocks at B_{MSY} and/or firm evidence of this over recent years it will attract a score higher than 80 and up to 100.

Outcome

The proportion of fisheries* in the MSC program that are maintained at or above MSY population levels is increasing (from 80% in 2009 to 95% in 2014). Action plans that include stock rebuilding measures and strategies have allowed target stocks to recover to MSY levels and for there to be long-term evidence of such status. Note that due to delayed reporting, fishery amalgamation and self-imposed and required suspensions, the total fishery number in Figure 4.1a shows a reduction for 2014 over 2013.

Definition
Number and proportion of MSC-certified fisheries with a high level of certainty and/or evidence of stocks being at B_{MSY} levels for several years; stocks at or around B_{MSY} levels; and those which are within biological limits and improving their status towards B_{MSY}

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

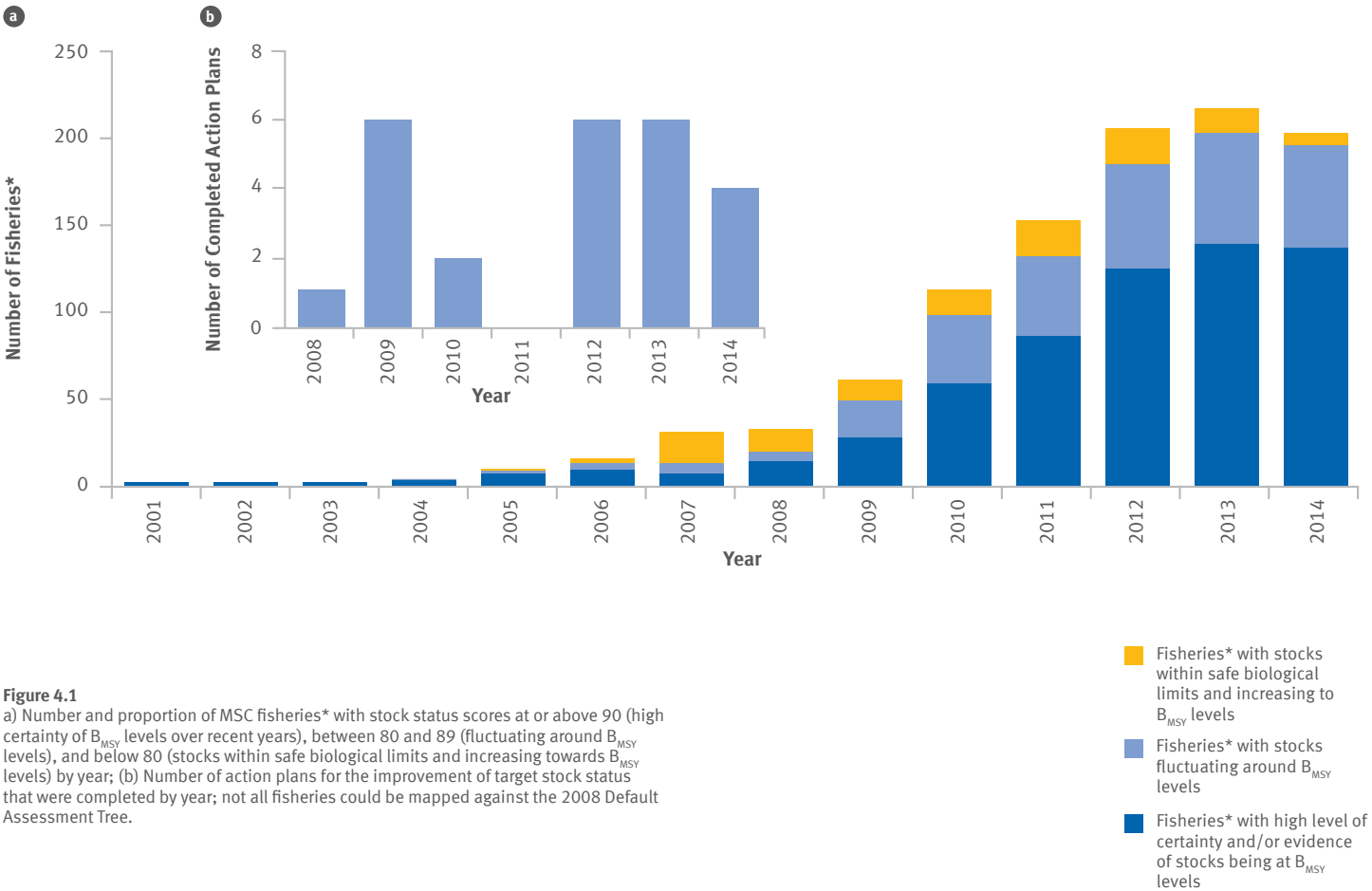


Figure 4.1
a) Number and proportion of MSC fisheries* with stock status scores at or above 90 (high certainty of B_{MSY} levels over recent years), between 80 and 89 (fluctuating around B_{MSY} levels), and below 80 (stocks within safe biological limits and increasing towards B_{MSY} levels) by year; (b) Number of action plans for the improvement of target stock status that were completed by year; not all fisheries could be mapped against the 2008 Default Assessment Tree.

5. Target stock management

Definition
Number and proportion of MSC-certified fisheries with comprehensive and precautionary target stock management in place compared to those making improvements.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

Comprehensive and precautionary management is needed for a fishery to be responsive to the status of the target stock. This usually entails the use of robust and effective harvest strategies and harvest control rules. A harvest strategy sets out the management actions necessary to achieve defined biological and economic objectives. Harvest control rules define how any fishing intensity will be adjusted in response to the status of the stock. This indicator tracks management harvest strategies and harvest control rules and tools. Fisheries needing improvements in these areas must still meet the MSC's minimum acceptable level for sustainability but must also develop action plans for improvement resulting in comprehensive and precautionary management.

Outcome

The proportion of fisheries* with comprehensive harvest strategies and harvest control rules and tools increased from 70% in 2010 to 77% in 2013, with a small decline to 75% in 2014. The requirement in the MSC Fisheries Standard relating to comprehensive and precautionary target stock management has led to fisheries developing action plans for improvement of their harvest control rules and harvest strategies. By the end of 2014, 44 action plans for improvement in stock management had been completed (Figure 5.1b). These improvements have led to clearly defined harvest strategies being put in place, the development of new management arrangements in collaboration with fishery assessment scientists, and clear evidence that the harvest control rules are appropriate and responsive to the state of the stocks.

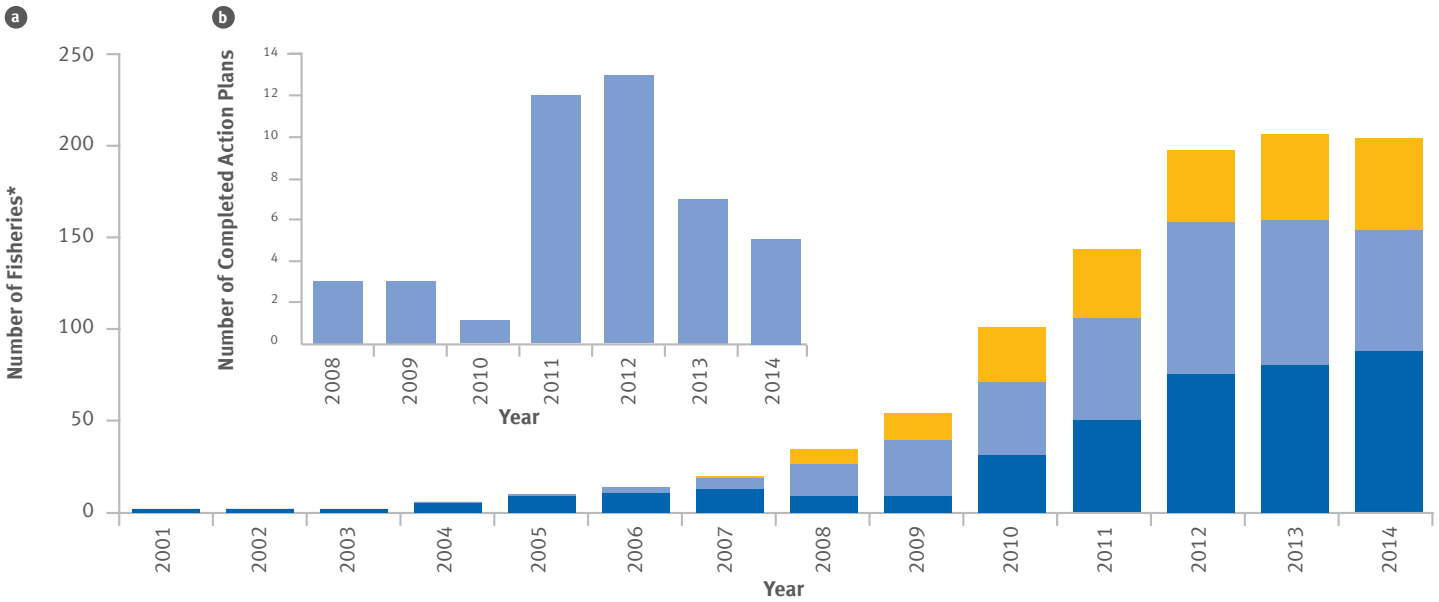


Figure 5.1
(a) Number and proportion of MSC fisheries* with scores at or above 90 for both PIs 1.2.1 and 1.2.2 (with target stock management above best practice), between 80 and 89 (with target stock management at best practice) and below 80 (with improving target stock management to best practice) by year; (b) Number of action plans for the improvement of target species management completed per year. Not all fisheries could be mapped against the 2008 Default Assessment Tree.

6. Information on the target stock

Description

Information is vital when it comes to assessing the health of a fish stock and providing evidence of the effectiveness of the harvest strategy. The MSC Fisheries Standard requires detailed and accurate information on stock structure and productivity, fleet composition and all fishery removals as well as peer-reviewed stock assessments that take uncertainty into account. This indicator tracks fisheries with comprehensive information and assessments of target stock, highlighting those fisheries that have action plans for improving such information.

Outcome

90% of fisheries* have comprehensive information providing evidence of the effectiveness of harvest strategy and management tools, and peer-reviewed stock assessments that address major uncertainties. 10% of fisheries* are in need of improvements compared to 13% requiring improvement in 2013. 145 action plans for improvement of information, monitoring and assessment of stock status have been completed since 2006, with a further two completed in 2014. Improvements made include the establishment of observer or tagging programs, enhanced protocols for on-board logbook data collection, electronic monitoring, formation of community-based data collection programs, and external peer-review of data and methods.

Definition
Number and proportion of MSC-certified fisheries with comprehensive information on stock assessment and harvest strategy, and those that are improving their information.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

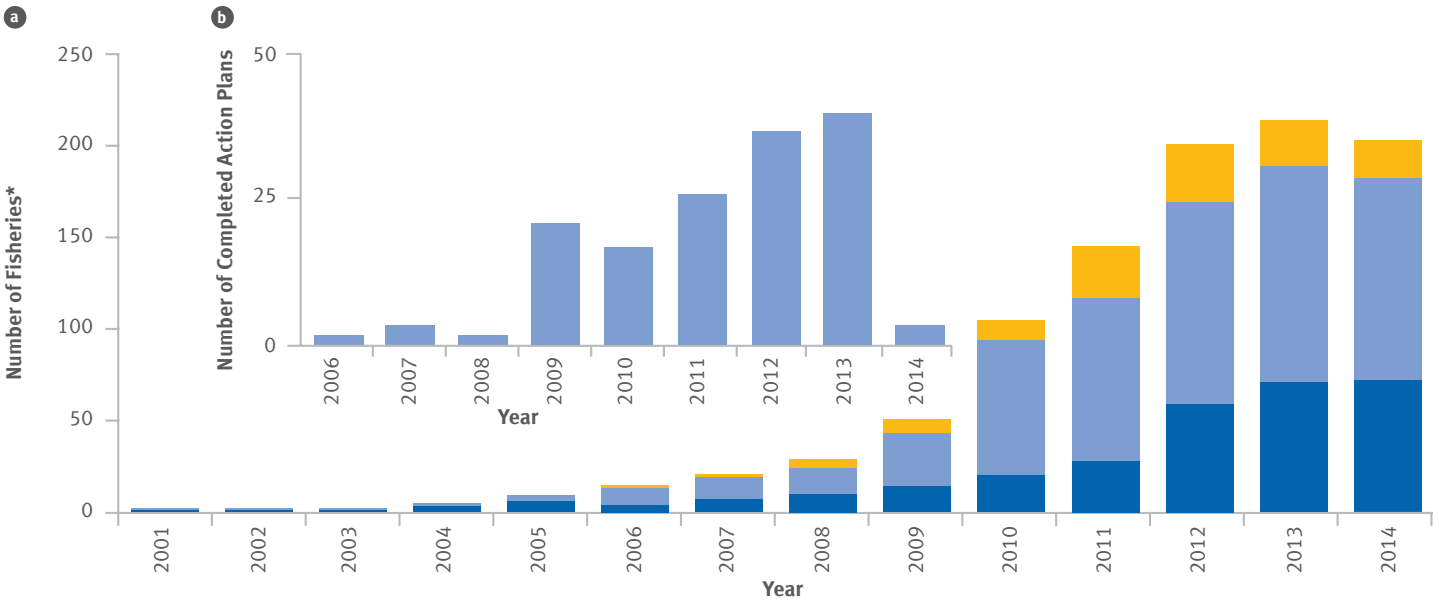


Figure 6.1
(a) Number and proportion of MSC fisheries* with scores at or above 90 for PIs 1.2.3 and 1.2.4 (with information above best practice), between 80 and 89 (with information at best practice) and below 80 (with information meeting the minimum acceptable limit and improving towards best practice) by year; (b) Number of action plans for the improvement of target stock information and assessment completed by year.

- Fisheries* with information on the target stock improving to best practice
- Fisheries* with information on the target stock at best practice
- Fisheries* with information on the target stock above best practice

7. Status of non-target species

Definition
Number and proportion of MSC-certified fisheries which do not pose a risk of serious or irreversible harm to non-target species, and those with plans to improve bycatch mitigation measures.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

As with any fishing operation, a certified fishery may catch species other than the target species which are either retained or discarded. It is important that fishing activity does not pose a risk of serious or irreversible harm to these non-target species, and does not hinder their recovery if depleted. The MSC Fisheries Standard requires that non-target species be within biological limits (above the point where recruitment could be compromised) or, if they are not, that the fishery has demonstrably effective management measures such that the fishery does not hinder their recovery. This indicator tracks the number of fisheries meeting these requirements for non-target species. Such measures might include a switch to more selective gears or the use of excluder devices or streamer lines to minimise, for example, seabird mortality. An action plan requires the fishery to make specific changes to its operation to reduce impacts or to undertake additional research to confirm that its actions are not irreversibly harming non-target species.

Outcome

78% of MSC-certified fisheries* have a high degree of certainty that they do not pose a risk of serious or irreversible harm to any non-target species. Where non-target species are recovering from below biological limits, there is a demonstrably effective strategy to ensure that fishing does not hinder recovery. 22% of fisheries* require more research to confirm that fishing impacts do not pose a risk of serious or irreversible harm to non-target species, and may need to implement further management measures based on this information. Ten action plans have been completed since 2012 to address lower scores in status of non-target species, including the introduction of precautionary bycatch limits, seasonal closures, bird scaring lines, and scientific research into the effectiveness of new impact mitigation measures.

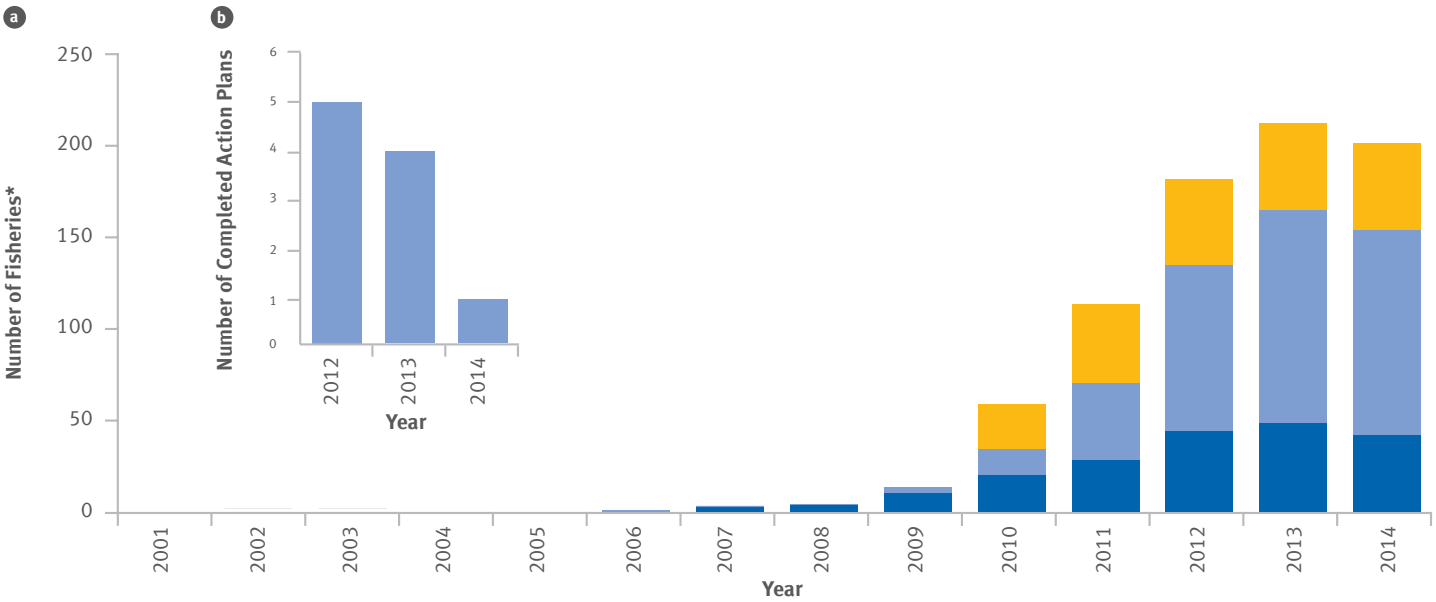


Figure 7.1
(a) Number and proportion of MSC fisheries* with scores above 90 for both PIs 2.1.1 and 2.2.1 (with non-target species status above best practice levels), between 80 and 89 (with non-target species status at best practice) and below 80 (with non-target species status above minimum acceptable limits, and improving to best practice) by year; (b) Number of action plans for the improvement of non-target species status completed by year.

8. Status of Endangered, Threatened and Protected (ETP) species

Description

Endangered, Threatened or Protected (ETP) species, such as marine mammals, seabirds, and turtles are variously listed on the IUCN Redlist, CITES Appendix I, or in national legislation. Fishing gear can accidentally capture or otherwise harm ETP species, which can be a serious threat to their recovery and conservation. The MSC Fisheries Standard therefore requires that fisheries understand the direct and indirect effects of fishing on these species, and take steps to ensure that any impacts do not exceed national and international limits associated with their protection. Where ETP populations are recovering, fisheries must not hinder their recovery. This indicator tracks the number of fisheries that are highly unlikely to cause unacceptable impacts to ETP species, and those that are improving to that level. An action plan for improvement for this PI could require that the fishery makes changes to its operations to minimise impacts on ETP species or, if the impact of the fishery is currently uncertain, to undertake research to confirm that the impacts are highly unlikely to cause serious or irreversible harm.

Outcome

Certified fisheries* can demonstrate that they do not cause serious or irreversible harm to ETP species. The proportion of those with scores at or above best practice has increased from 73% in 2009 to 88% in 2013 and 90% in 2014. Twenty-three action plans for managing ETP species impacts have been closed since 2008. Improvements have been made in data collection and research on ETP species, the development of comprehensive analysis of potential impacts from fishing, and the implementation of changes in fishing operations and gear to avoid unacceptable impacts.

Definition
Number and proportion of MSC-certified fisheries with ETP species impacts within national and international limits, and those with improving measures to minimise impact.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

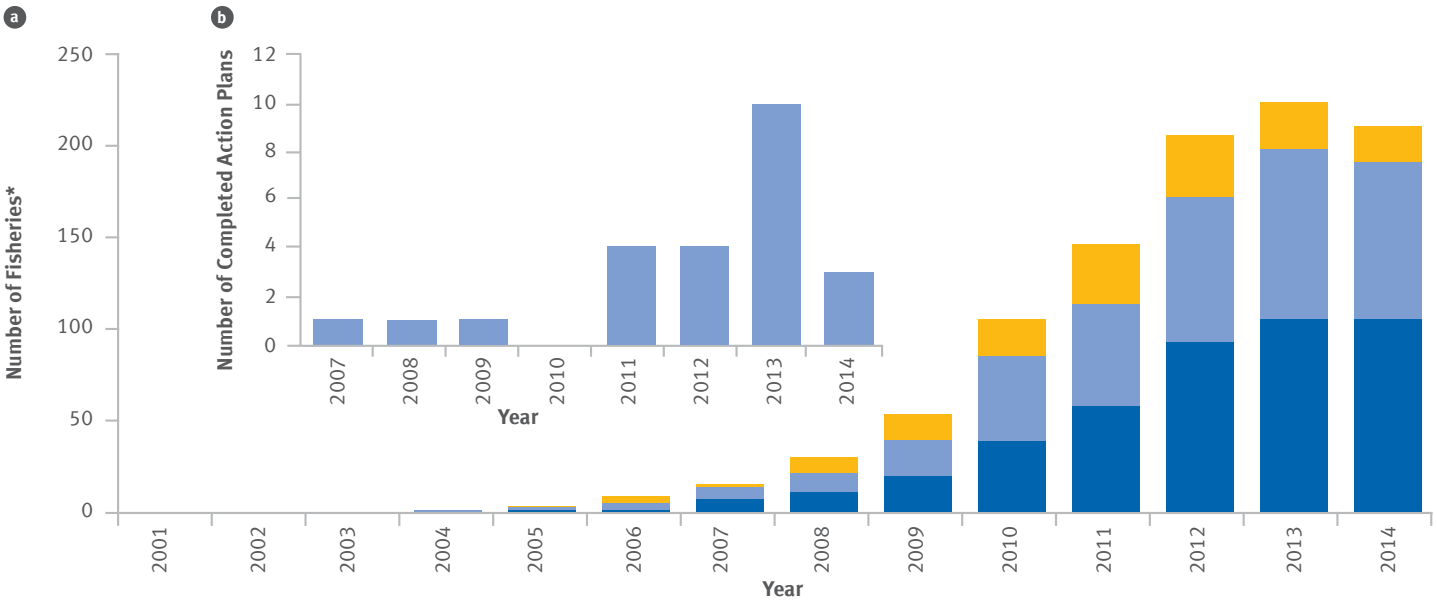


Figure 8.1
(a) Number and proportion of MSC fisheries* with ETP scores at or above 90 (with ETP species status above best practice), between 80 and 89 (with ETP species status at best practice), and below 80 (with ETP species status above minimum acceptable limits, and improving to best practice) by year; (b) Number of action plans for the improvement of ETP species status completed by year.

- Fisheries* with ETP species status improving to best practice
- Fisheries* with ETP species status at best practice
- Fisheries* with ETP species status above best practice

9. Status of habitats and ecosystems

Definition
Number and proportion of MSC-certified fisheries without significant habitat and ecosystem impact, and those which are making improvements to minimise levels of habitat and ecosystem impact.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

Healthy marine habitats, particularly benthic ones, are important in maintaining populations of fish and other organisms but can be sensitive to change and disruption caused by certain types of fishing. Areas fished with bottom contact gears will have differing levels of impact to their benthic habitat structures depending on the biophysical environment. Fishing may also affect ecological processes at a larger scale, modifying the interactions among species and flows of energy and nutrients through ecosystems. The habitat and ecosystem components of the MSC Fisheries Standard consider the broad ecological community and ecosystem in which the fishery operates and require that no serious or irreversible harm results from fishing. When assessed to be above the minimum acceptable limit but knowledge of any impacts is uncertain, or improved mitigation of impacts is required, the fishery will receive a score between 60 and 79 and will be required to follow an action plan for improvement. These plans may include making changes to fishery operations or undertaking additional research that confirms compliance with the MSC's requirement of best practice. For key low trophic level species that play a critical role in their wider ecosystem, the MSC requires more precautionary management to maintain higher stocks, protecting the needs of other species in the ecosystem. This is not scored in the ecosystem impacts area of the Default Assessment Tree, but in relation to the target species (indicator 4).

Outcome

The proportion of fisheries* in the MSC program with habitat and ecosystem impacts at or above best practice has increased from 75% in 2009 to 83% in 2013 and 86% in 2014. The 38 action plans completed since 2008 have led to improvements in the monitoring and reporting of habitat impacts, increased the understanding of gear impacts, and resulted in the mitigation of impacts through changes in gear use and the creation of closed or reduced impact areas of the seabed.

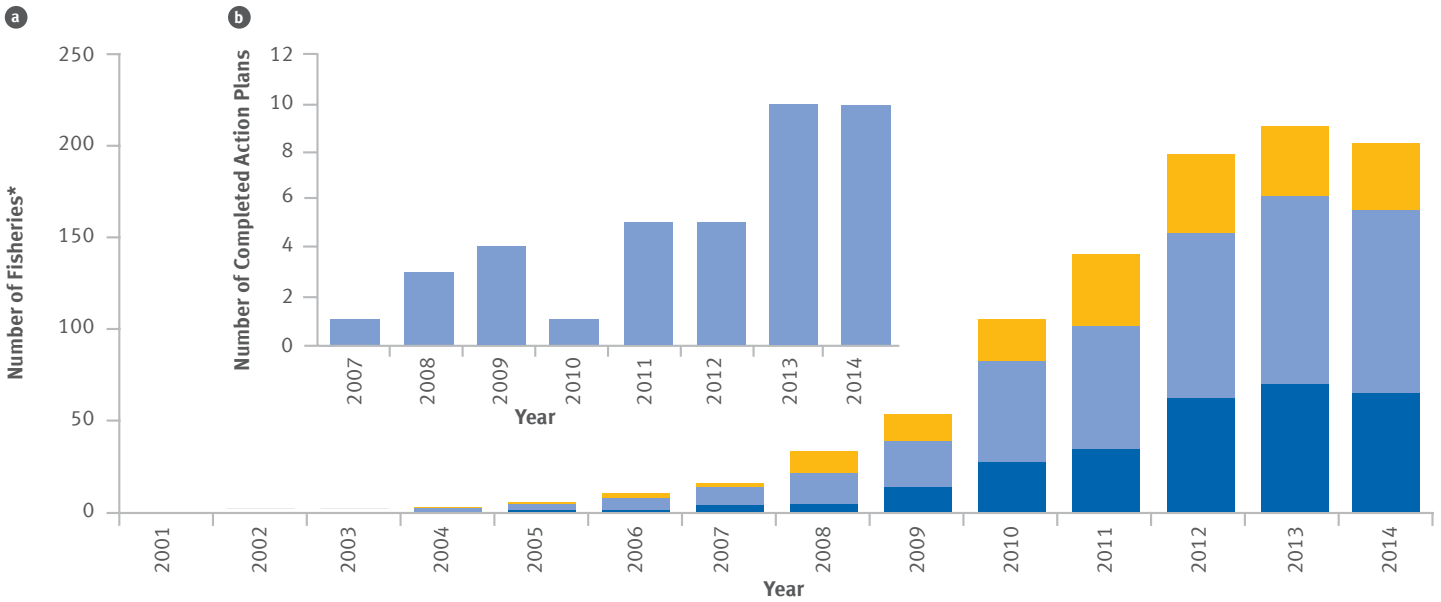


Figure 9.1
(a) Number and proportion of MSC fisheries* with habitat and ecosystem outcome scores at or above 90 (with habitat and ecosystem impact above best practice), between 80 and 89 (with habitat and ecosystem impact at best practice), and below 80 (impacts on habitat and/or ecosystem improving towards best practice) by year; (b) Number of action plans for the improvement of habitat and ecosystem status completed by year.

- Fisheries* with habitat and/or ecosystem status improving to best practice
- Fisheries* with habitat and ecosystem status at best practice
- Fisheries* with habitat and ecosystem status above best practice

10. Management of non-target and Endangered, Threatened and Protected (ETP) species and habitat and ecosystem impacts

Description

Fishing activities inevitably impact a variety of species, habitats and ecosystems. The MSC Fisheries Standard requires that fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends. This indicator tracks the number of fisheries where there are effective strategies in place to manage non-target and Endangered, Threatened and Protected (ETP) species, habitats and ecosystems. These strategies should be designed to ensure the fishery does not pose a risk of serious or irreversible harm to any component of the ecosystem.

Outcome

In 2013 and 2014, 75% of fisheries* have management of non-target and ETP species, habitats and ecosystems at or above best practice. A total of 45 improvement action plans have been completed since 2008 with 25 of these completed in 2013 and 2014. These have resulted in improvements in stock assessments for non-target species, improvements in monitoring of ETP species, the implementation of bycatch mitigation measures, and implementation of management plans at the government level.

Definition
Number and proportion of MSC-certified fisheries with comprehensive management of impacts to assessed components of the ecosystem, and the number of fisheries improving some aspect of their management of impacts to ecosystem components.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

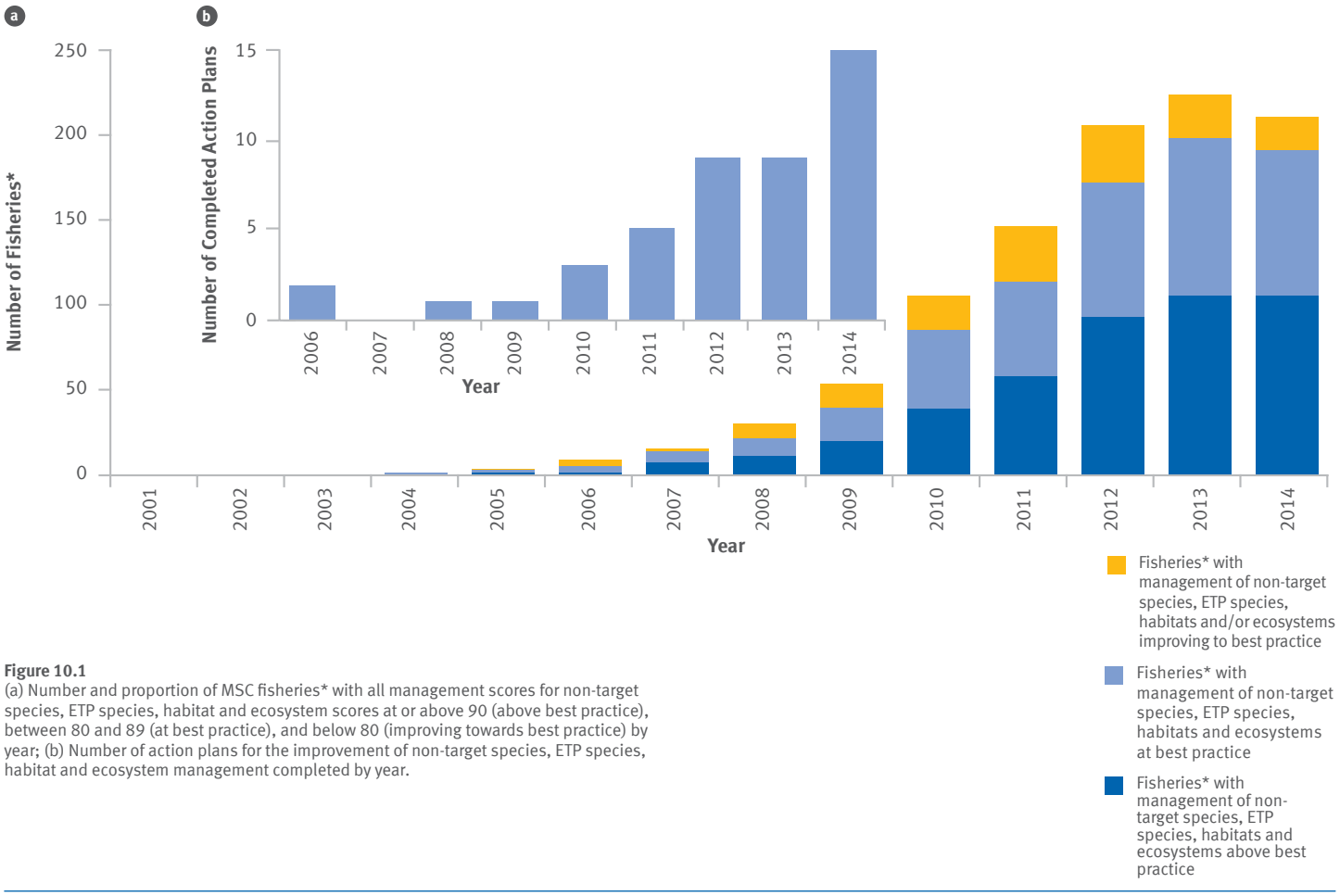


Figure 10.1
(a) Number and proportion of MSC fisheries* with all management scores for non-target species, ETP species, habitat and ecosystem scores at or above 90 (above best practice), between 80 and 89 (at best practice), and below 80 (improving towards best practice) by year; (b) Number of action plans for the improvement of non-target species, ETP species, habitat and ecosystem management completed by year.

11. Information on non-target and Endangered, Threatened and Protected (ETP) species, habitats and ecosystems

Definition
Number and proportion of MSC-certified fisheries with comprehensive information on non- target species, ETP species and habitats and ecosystems, and those that are improving their information.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

In the past decade the requirements for ecosystem-based management of marine resources have grown considerably, yet knowledge of the impacts of fishing on species, habitats and ecosystems often remains limited. Comprehensive knowledge of these ecosystem components is necessary to support appropriate management of fishing impacts. The MSC Standard therefore requires all certified fisheries to have adequate information to determine the risks posed by fishing to different ecosystem components, and to determine the effectiveness of impact mitigation strategies. In order to achieve a score of 80 or higher, sufficient information must be available to facilitate a quantitative estimate of risk and impact mitigation effectiveness. Fisheries which do not have more than a qualitative understanding of these must fulfil action plans for improvement.

Outcome

As of 2014, 63% of certified fisheries* had adequate non-target species, ETP species, habitat and ecosystem information to quantitatively determine the impacts of fishing, and evaluate the effectiveness of mitigation measures, while 37% are improving to that level. This compares to 2013, when 55% of fisheries* had this information at the level of best practice, and 45% were improving. Eighty-six action plans have been completed since 2007 to improve the quality and quantity of information available. Many of these action plans included carrying out further research on the ecosystem impacts of fishing, including habitat mapping, monitoring of bycatch species, and food web analysis.

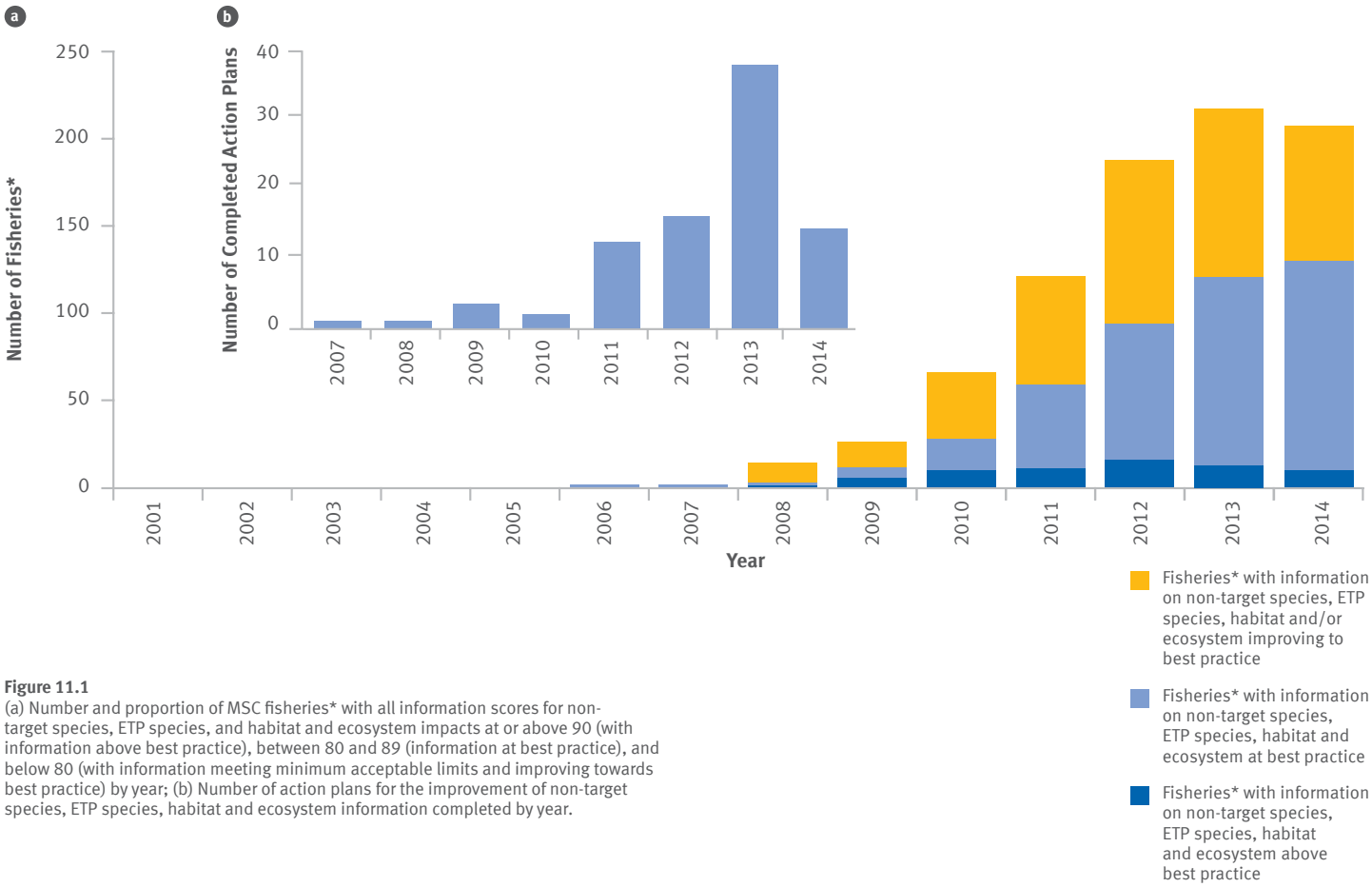


Figure 11.1
(a) Number and proportion of MSC fisheries* with all information scores for non-target species, ETP species, and habitat and ecosystem impacts at or above 90 (with information above best practice), between 80 and 89 (information at best practice), and below 80 (with information meeting minimum acceptable limits and improving towards best practice) by year; (b) Number of action plans for the improvement of non-target species, ETP species, habitat and ecosystem information completed by year.

12. Governance and policy

Description

Effective governance and fishery policy are essential components of fishery management and are required to ensure that any fishery is operated in a sustainable way both now and into the future. This indicator tracks the performance of fisheries' governance arrangements, legal frameworks, any use of positive incentives and the avoidance of negative incentives for sustainability, such as some subsidies, as well as long-term objectives of the management system.

Outcome

The proportion of fisheries* in the MSC program with effective governance and policy has increased from 83% in 2009 to 94% in 2013 and 2014. The reported number of fisheries* being required to make improvements in these areas has dropped from 13 in 2013 to 10 in 2014. A total of 29 action plans relating to governance and policy have been completed since 2008 resulting in improvements to long-term management plans, improvements in the incentives for sustainable behaviour, and promotion of better consultation mechanisms and co-management.

Definition
Number and proportion of MSC-certified fisheries with high performance across all MSC governance and policy requirements, and those making improvements in governance and policy.

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

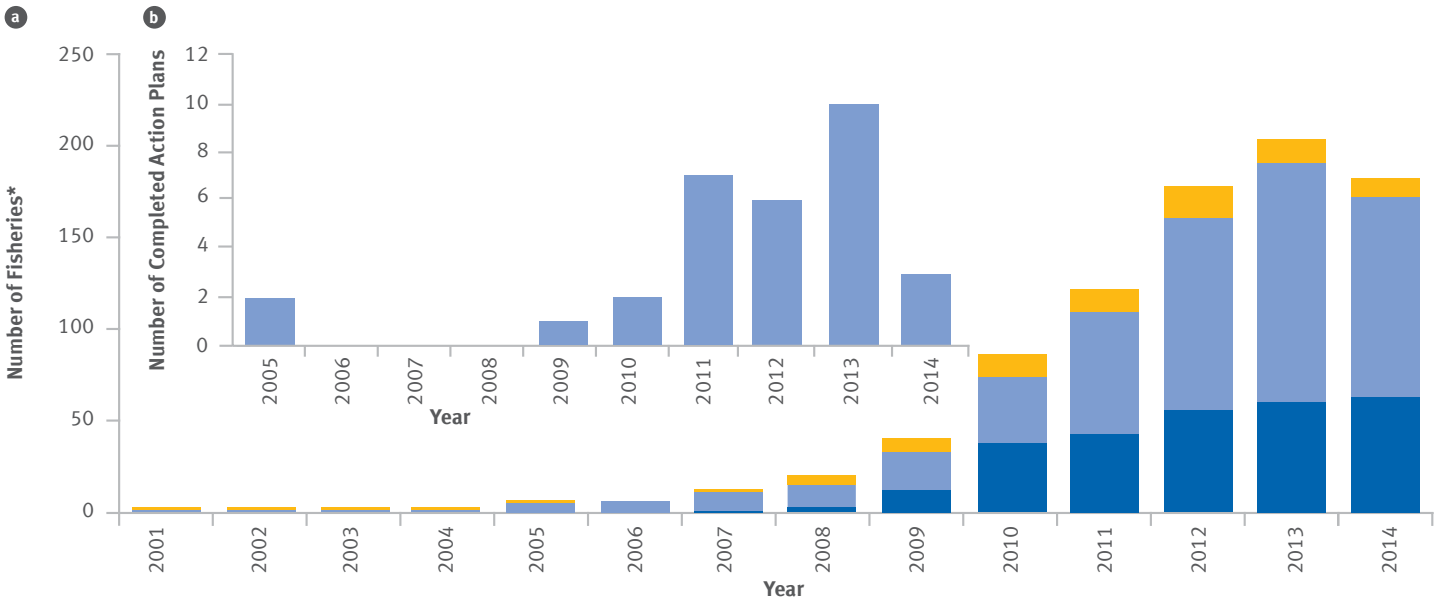


Figure 12.1
a) Number and proportion of MSC fisheries* with all governance scores at or above 90 (with governance above best practice), between 80 and 89 (with governance at best practice), and below 80 (with governance performance improving towards best practice) by year; (b) Number of action plans for the improvement of governance completed by year.

Fisheries* with governance and policy improving to best practice

Fisheries* with governance and policy performance at best practice

Fisheries* with governance and policy performance above best practice

13. Fishery-specific management

Definition
Number and proportion of MSC-certified fisheries with comprehensive fishery-specific management systems and those improving their fishery-specific management systems

Source
MSC scoring data

Relevance
Sustainability Objective 1.1

Description

Effective fishery-specific management objectives are essential not only for maintaining healthy stocks but also for implementing corrective measures when stocks are reduced. Key aspects of these objectives include effective decision-making processes, monitoring, control and surveillance mechanisms, the development of comprehensive research plans and a system for monitoring, evaluating and reviewing the performance of fishery-specific management. The MSC Fisheries Standard requires all these components to be in place for a fishery to become certified without an action plan for improvements.

Outcome

The proportion of fisheries* with effective fishery-specific management has remained at around 70% between 2010 and 2013. Data available for 2014 indicate an increase to 79%. A total of 116 action plans for improvements have been completed since 2008, with 32 completed in 2013 and 20 in 2014. Improvements made include the introduction of regular internal and external reviews of management plans, formalisation of fishery-specific objectives at national and international levels, strengthening of compliance and enforcement systems, and the development of scientific surveys and research plans.

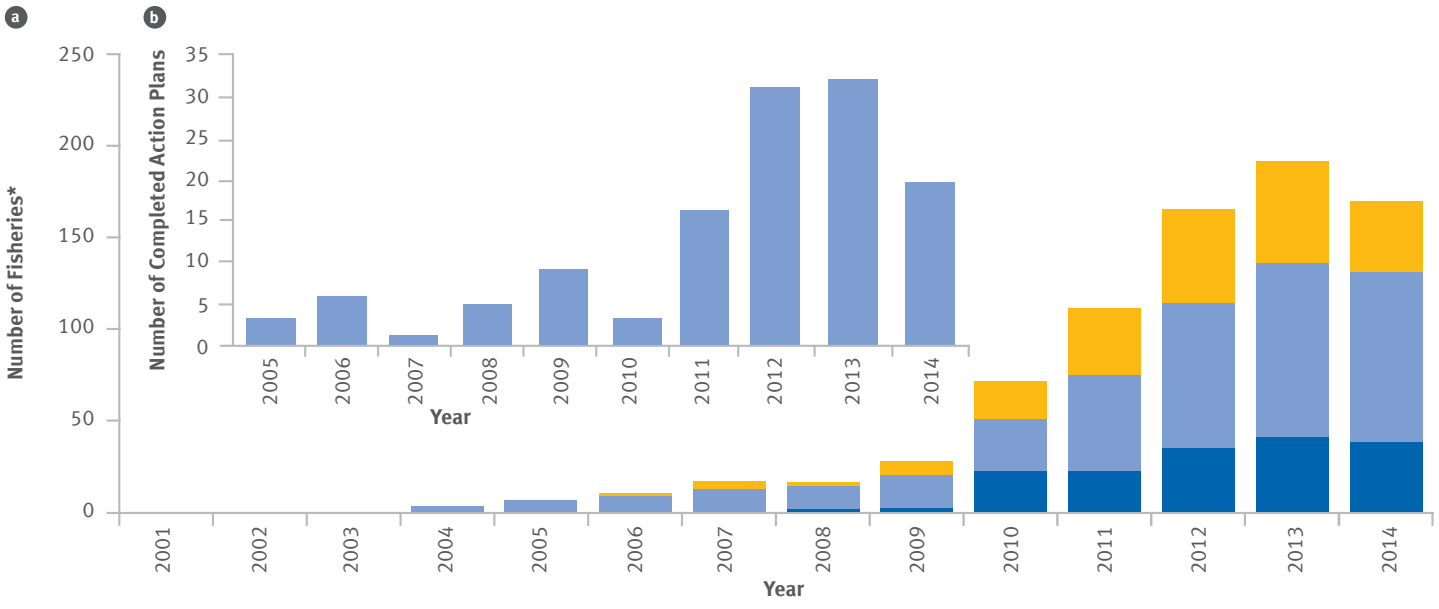


Figure 13.1
(a) Number and proportion of MSC fisheries* with all fishery specific management scores at or above 90 (with fishery specific management above best practice), between 80 and 89 (with fishery specific management at best practice), and below 80 (meeting the minimum acceptable level and improving to best practice) by year; (b) Number of fishery specific management action plans completed by year.

Fisheries* with fishery specific management improving to best practice

Fisheries* with fishery specific management at best practice

Fisheries* with fishery specific management above best practice

Program Indicators

This section relates to the MSC's strategy outcome objectives. Indicators measure the performance, impact and reach of the program, considering engagement of fisheries, supply chain businesses, stakeholders and seafood consumers.

Whole Foods seafood counter with shopper ©WFM

14. Number of and landings from MSC-engaged fisheries

Description

This indicator reveals trends in the number of certified, in assessment, suspended and exited fisheries together with their associated total landings. The number of fisheries in assessment refers to fisheries at different stages of the assessment process. MSC engaged fishery numbers are subject to fluctuation, particularly over year-by-year timeframes as certifications are completed, suspensions are invoked and rescinded, withdrawals occur, or individual fisheries combine for joint assessment. Certified fisheries may be suspended at any time if they no longer meet the requirements of the Standard and re-instated when any compliance issues are resolved providing that certification is still within its five year term. MSC-certified tonnage for a specific year is compared to the most recent global wild capture seafood figures that are two years in arrears and published by the United Nations Food and Agriculture Organization (FAO).

Outcome

The total number of MSC-certified fisheries at the end of 2014 was 231. In addition, 18 were in a suspended state, and 88 in different stages of the assessment process (Figure 14.1). Total certified landings were estimated at 8.83 million tonnes (Figure 14.3). In the last five years, the number of MSC-certified fisheries has shown over a three-fold increase with current MSC-certified landings and MSC-engaged landings corresponding to approximately 10% and 11% of global wild-capture catch (FAO, 2014) respectively. In 2014, 36 new fisheries were certified and 51 fisheries entered the MSC program (Figure 14.2).

Definition
Number and tonnage of fisheries engaged in the MSC program by year.

Source
MSC certificate data

Relevance
Sustainability Objective 1.2 and 2.1

Figure 14.1
Number of fisheries certified, in assessment, withdrawn, or failed in a given year

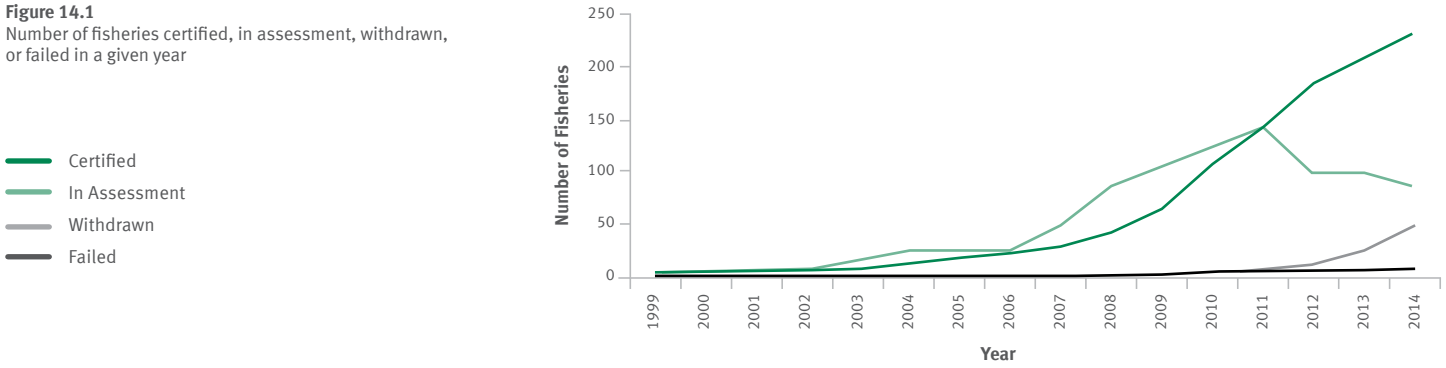


Figure 14.2
Number of fisheries becoming certified, being recertified, entering assessment and reassessment, being withdrawn and failing assessment by year.

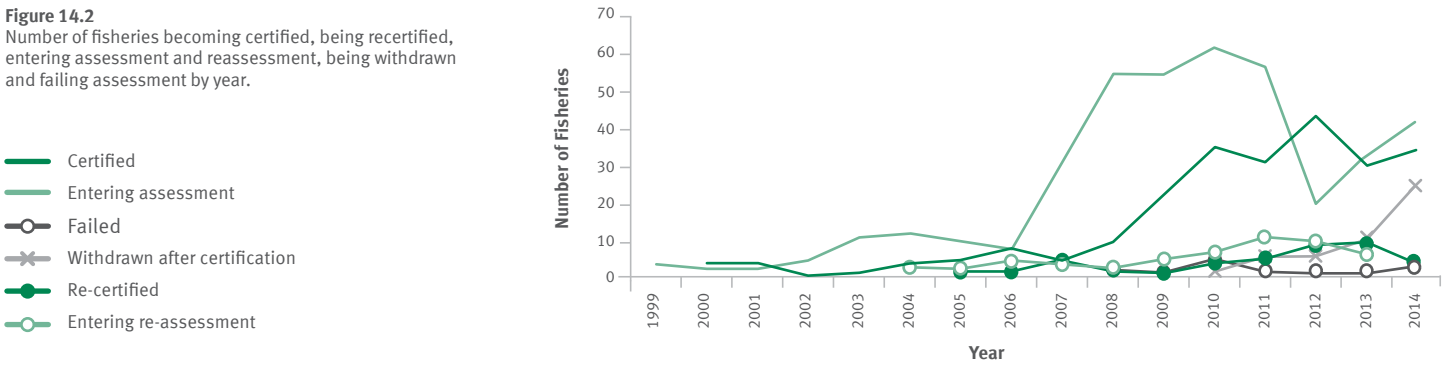
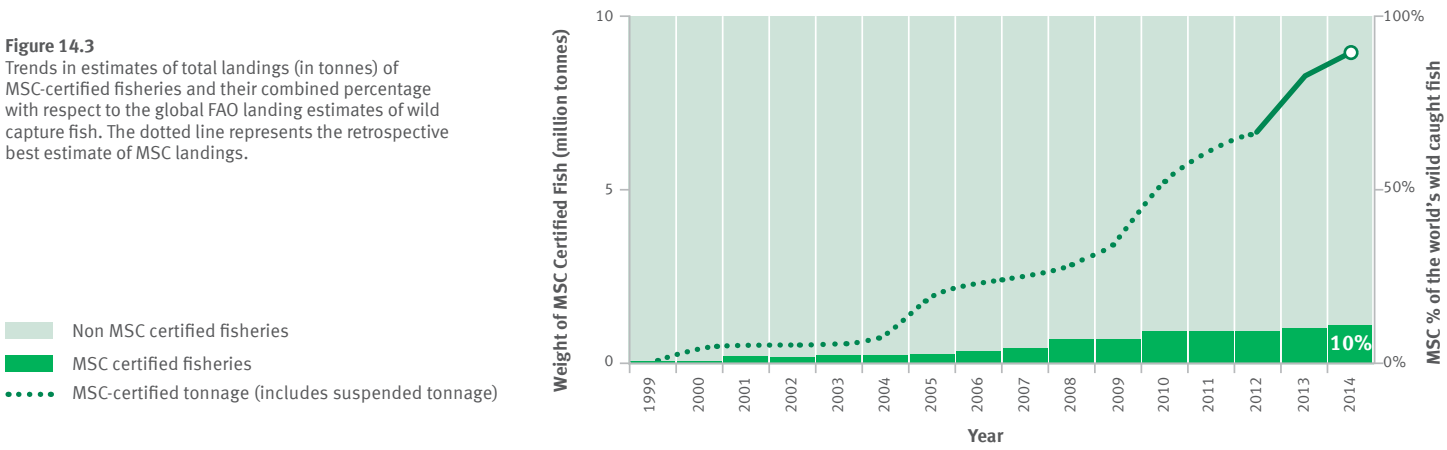


Figure 14.3
Trends in estimates of total landings (in tonnes) of MSC-certified fisheries and their combined percentage with respect to the global FAO landing estimates of wild capture fish. The dotted line represents the retrospective best estimate of MSC landings.



15. Program uptake from fisheries in developing countries

Definition
Number of developing country fisheries engaged in the MSC program; total and by region.

Source
MSC certificate data

Relevance
Sustainability Objective 1.2

Description

Fishing plays a key role in developing world countries, providing a basis for economic activity, food security and livelihoods. The MSC aims to ensure that fisheries in Africa, Asia, Oceania, Latin America and the Caribbean remain healthy, productive and profitable for the millions that rely on them. The MSC's Developing World Fisheries Program seeks to raise awareness and increase certification opportunities for fisheries from developing countries.

Outcome

Fisheries from developing countries account for 8% of the total number of MSC-certified fisheries. Although this number is disproportionately low, there is growing awareness of the benefits of MSC engagement in both protecting natural resources and broadening market access. One new developing country fishery entered assessment in 2014 and three became certified. More are expected to enter assessment in the future due to the continued development of accessibility tools and the broad push within developing countries to enhance sustainability.

Benchmarking and Tracking Tool

The Benchmarking and Tracking Tool (BMT) is a new accessibility tool designed for use by pre-MSC-certified fisheries which are making improvements towards sustainability in preparation for certification, also referred to as Fisheries Improvement Projects (FIPs). FIPs provide an important route towards certification for fisheries that are not immediately certifiable and which need to make information and management improvements before they can become certified.

The BMT allows users to benchmark a current fishery status using the BMT index. This index is a measure of the current status of a pre-MSC fishery in relation to MSC's fishery performance indicators. In addition to benchmarking current status of a pre-MSC fishery or FIP, the BMT can be used to estimate expected increases in scores over time. This is based on the completion of milestones outlined in fisheries improvement action plans therefore tracking actual progress made by the fishery over the period of implementation of the action plan.

The tool will also provide a transparent mechanism for fisheries making improvements to communicate their progress with their stakeholders. A beta version of the BMT was released in 2013.

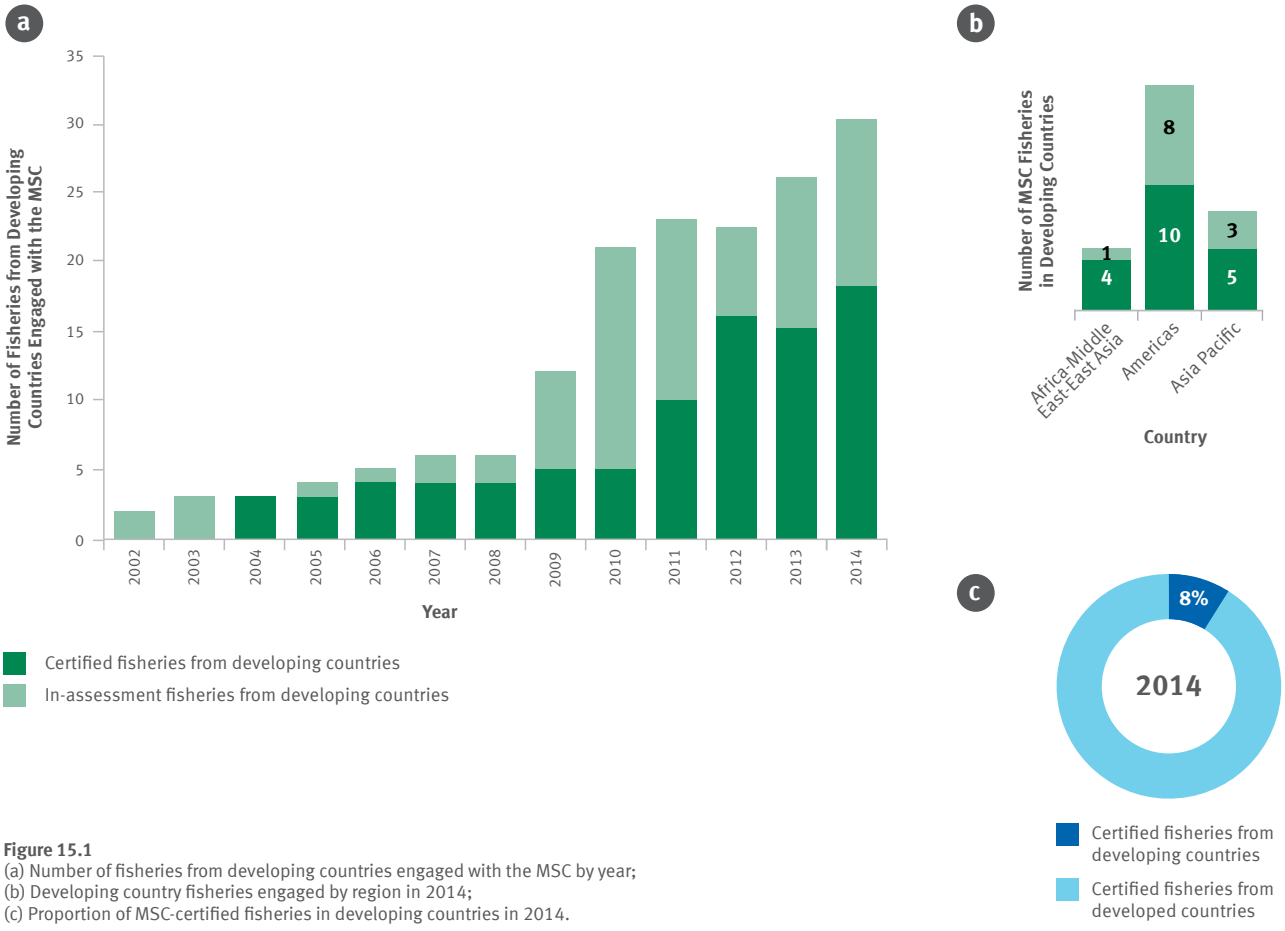


Figure 15.1
(a) Number of fisheries from developing countries engaged with the MSC by year;
(b) Developing country fisheries engaged by region in 2014;
(c) Proportion of MSC-certified fisheries in developing countries in 2014.

16. DNA testing of MSC-certified fish

Introduction

MSC-certified fish can only be sold with the MSC ecolabel if every company in the supply chain carries a Chain of Custody (CoC) certificate. MSC CoC certificate holders are regularly audited by independent auditors (Conformity Assessment Bodies). Each CoC-certified company must ensure that all MSC products they handle are fully traceable from raw material input through to point of sale to their customers. The MSC monitors the integrity of the supply chain through tracing individual products back to the certified fishery that they originated from. Since 2009 the MSC has also been using DNA testing to help monitor the effectiveness of the Chain of Custody program.

In December 2013, the MSC completed the fourth round of DNA testing on products sold to consumers as MSC certified. The sampling of products for DNA testing was first carried out in 2009, then in 2011, 2012 and most recently in 2013. In each round different products were sampled and additional DNA tests were used. In 2011, 196 products were tested and 98% were found to be correctly identified. In 2012, 381 products were tested and 99% were found to be correctly identified. **In 2013, 320 products were tested and 99% were found to be correctly identified.**

Cases of misidentification are referred to the Conformity Assessment Bodies (CABs) for further investigation.

Pacific Cod

Methodology

As in 2012, two methods were used in the MSC testing process in 2013. The first method extracted the entire DNA sequence (called DNA sequencing), while the second looked for a perfect match of a particular part of the DNA sequence (this is called single-nucleotide polymorphism, or 'SNP').

DNA tests can be applied at different levels, as outlined below:

- **Species level tests:** These tests can validate the species (or in some cases, the genus) of a seafood sample. However, in most cases species level tests cannot distinguish between MSC and non-MSC-certified samples of the same species; therefore the MSC has also been developing population level tests where feasible.
- **Population level tests:** These tests can identify a fish at the level of its population or stock, and can therefore link a sample of fish to a specific geographical location (often referred to as a catch area). Population level tests are only relevant for the MSC where there are genetic differences between the stock covered by an MSC-certified fishery, and the stock not covered by an MSC-certified fishery area.

For the 2013 DNA testing, the MSC used the following set of DNA tests:

Species level tests

- **Hake species:** *Merluccius capensis, Merluccius paradoxus or Merluccius productus*
- **Plaice:** *Pleuronectes platessa*
- **Walleye pollock:** *Gadus/ Theragra chalcogrammus*
- **Sole Species:** *Lepidopsetta bilineata/ polyxystra*
- **Saithe:** *Pollachius virens*
- **Hoki (to genus):** *Macruronus spp.*
- **Pacific salmon species:** *Oncorhyncus spp.*
- **Pacific cod:** *Gadus macrocephalus*
- **Haddock:** *Melanogrammus stenolepis*
- **Halibut:** *Hippologlossus stenolepis*
- **Skipjack and albacore tuna:** *Katsuwonus pelamis, Thunnus alalunga*

Population level tests

- **Atlantic cod:** *Gadus morhua* – population of origin

Relevance
Sustainability Objective 2.1

Results from 2013 testing

320
samples collected

15
countries where samples were collected

3
products mislabelled

More than 99%
of tested products were correctly labelled

In 2013, 320 samples from retail packed products, fresh fish counters, and catering restaurants' products were taken in 15 different markets. Of these, only three samples (less than 1%) were found mislabelled. As a result, those supply chains were immediately investigated, and evidence of companies substituting MSC-certified with non-certified product resulted in suspension of their certificate.

On-going investment in supply chain oversight and support for partners

The MSC continues to expand its supply chain monitoring and investment in the following ways:

- On-going commitment to DNA testing both of MSC-certified products in the market place and within the supply chains.
- Supporting research and development to expand the range of species and population level tests available. This includes collaboration between the MSC and CSIRO in Australia to determine the potential to test geographic origin.
- The MSC is piloting an online transaction database which will increase transparency of the flow of MSC products across the supply chain. The data will allow verification of purchase and sale transactions between buyers and sellers, and will be used to increase the effectiveness of CoC audits.
- Continuing the use of product trace-backs and supply chain reconciliations (comparing purchase and sales volumes across an entire supply chain) to monitor high risk areas and investigate concerns raised.

17. Conformity Assessment Bodies involved in MSC assessments

Description

Under the MSC program, fisheries and businesses can become certified if they meet the MSC Standards for sustainable fishing and product integrity. To maintain impartiality, the MSC operates third-party certification programs. The MSC itself does not issue certificates; these are issued by Conformity Assessment Bodies (CABs) which are independently accredited by Accreditation Services International (ASI). All CABs are regularly audited by ASI to ensure that they comply with MSC requirements. This process ensures that the MSC program remains robust and credible, and meets best practice guidelines for standard-setting organisations as set out by the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) and the FAO.

Outcome

The number of assessments and the geographical extent of the MSC program have increased substantially in recent years. This has led to an increase in the number of ASI accredited CABs from, for example, five in 2007 to 21 in 2014. 10 of these are accredited to certify both fisheries and chain of custody clients, the remaining 11 are only accredited for CoC audits.

Definition
Number of Conformity Assessment Bodies involved in MSC fishery certifications per year

Source
MSC scoring data

Relevance
Sustainability Objective 2.1

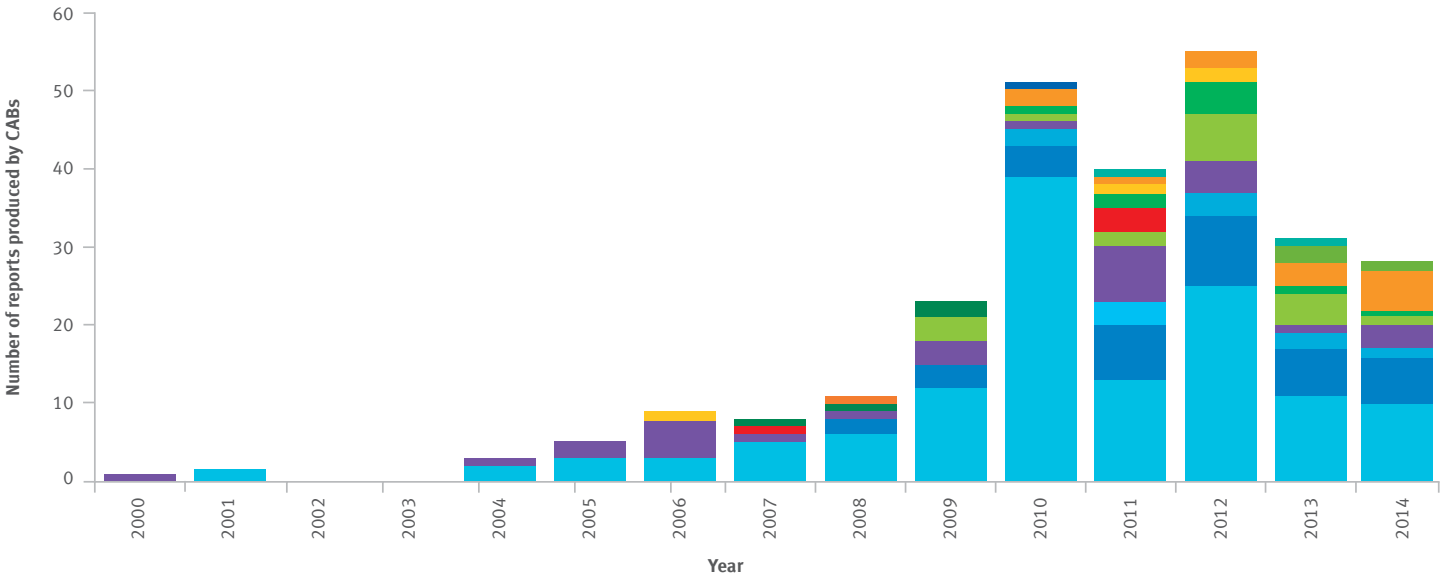


Figure 17.1
Number of fishery public certification reports produced by CABs per year. Bar colours represent individual CABs. For reasons of confidentiality the individual CABs are not identified on this figure.

18. Objections to MSC certification

Definition
Number of accepted objections, expressed as a proportion of the number of fisheries certified.

Source
MSC certification database

Relevance
Sustainability Objective 2.1

Description

The MSC certification process allows stakeholders to file an objection to the final report produced by the Conformity Assessment Body (CAB). The objective of the MSC's objections procedure is to provide a structured framework by which specific concerns about certification decisions can be formally reviewed and resolved.

Outcome

The proportion of fisheries receiving objections has been stable, other than for 2003 when the only fishery to be certified received an objection (rate =1). Since that time fewer than 20% of fisheries gaining certification each year have received objections.

MSC Objections Procedure

The MSC Objections Procedure is a key component of the fishery assessment process. It is intended to provide a robust dispute resolution mechanism and produce an outcome that all parties with interests in a fishery certification would consider fair and impartial.

The two objectives of the process:

a) To provide for an independent review of the CAB's decisions to make sure that the decisions are not arbitrary or unreasonable, and

b) To provide an orderly, structured procedure in which parties' concerns regarding certification decisions can be transparently addressed and resolved.

The MSC is committed to reviewing and improving the objections procedure. Previously reviewed in 2007, 2009 and 2011, the 2014 review focused on the accepted notices of objection (NoO), received between February 2011 and August 2013. It considered trends and patterns in objections made against CAB decisions. A second part of this review considered the survey responses from past objection participants on their levels of satisfaction with the procedure and how this could be improved. The responses provided recommendations for changes to the procedure.

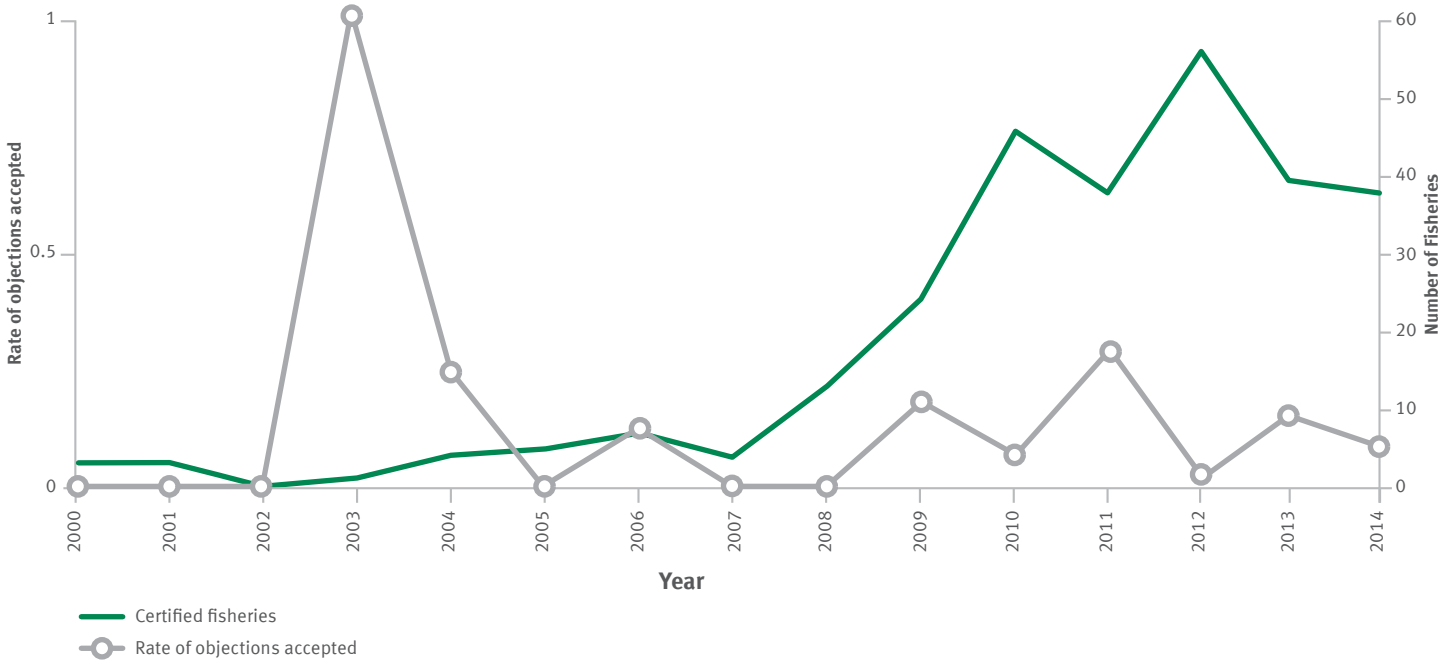


Figure 18.1
The proportion of fisheries that received an objection by year, expressed as a proportion of the total number of fisheries certified in that year. The number of fisheries certified in any particular year is also given.

19. Extent of the Chain of Custody program

Description

Companies in the supply chain wishing to actively sell MSC-certified seafood must be certified against the MSC Chain of Custody (CoC) Standard. This ensures that the MSC ecolabel is only displayed on seafood from an MSC-certified sustainable fishery. Certified fish cannot be mixed with uncertified fish and organisations handling MSC-certified seafood must have a management system capable of maintaining records that allow any product or batch of products sold as certified to be traced from its sales invoice to a certified source.

A certificate for each company in the supply chain provides this verification. However, the number of certificates does not equate to the number of sites covered by certification as a single group certificate may represent many sites. Since 2012, Aquaculture Stewardship Council (ASC) certified product supply chains have also been managed through the MSC CoC Standard. As at the end of December 2014 there were 444 valid ASC CoC certificates.

Outcome

During 2014, the number of MSC CoC certificates has increased from 2 549 to 2 792, a growth of 9.5%. Demonstrating the global nature of the seafood industry, the US, Germany, UK, China and the Netherlands continue to have the largest number of certifications (more than 200 each). Certified organisations include a mixture of processing and supply chain companies through to retailers and consumer-facing outlets such as shops and restaurants. Growth in 2014 has continued in both MSC emerging and established countries, particularly Vietnam (59%), Iceland (42%) and Norway (26%).

Definition
Number of MSC Chain of Custody certificates by country and year.

Source
MSC certificate database

Relevance
Sustainability Objective 2.2

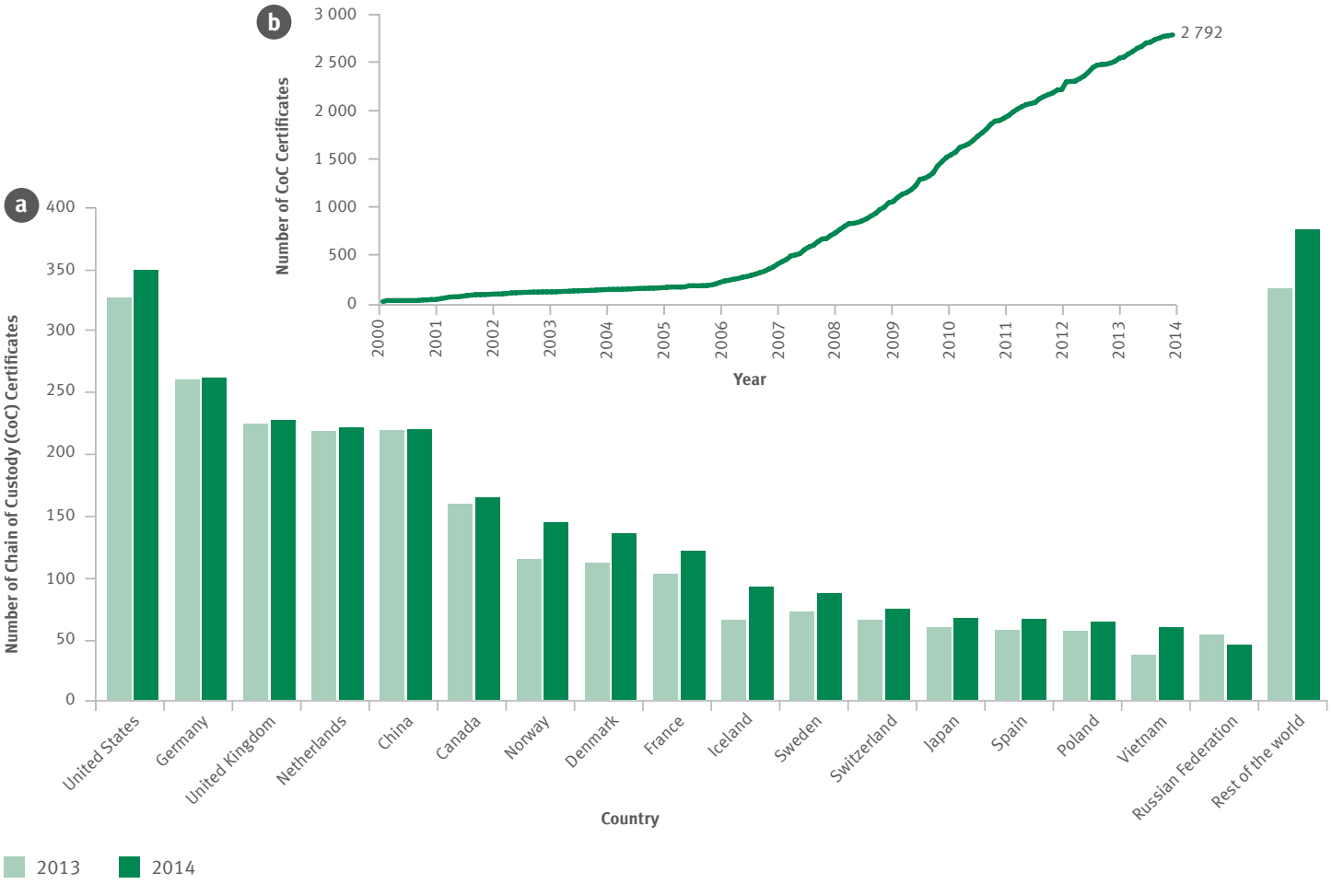


Figure 19.1
(a) Chain of Custody (CoC) certificates by country in 2013 and 2014; and (b) the total number of Chain of Custody certificates by year.

20. MSC-ecolabelled products in the market

Definition
Number of MSC Ecolabel Licence Agreements (ELAs) by country and trends in number of ecolabelled products

Source
MSCI data

Relevance
Sustainability Objective 2.2

Description

The MSC is considered to be a 'B to C' program, i.e. one that operates by 'businesses' targeting and selling a product to 'consumers', rather than a 'B to B' program, in which businesses target other businesses. The MSC uses its consumer-facing ecolabel to allow identification of MSC products by consumers. However, not all MSC-certified product ends up being sold with the MSC ecolabel.

The MSC also licences independent use of its ecolabel for use with promotional material for companies. As a certification mark and trademark, strict rules govern the display of the MSC ecolabel: only organisations that have signed a formal written agreement with the MSC - the Ecolabel Licence Agreement (ELA) - may display the MSC ecolabel on a seafood product, menu item or associated promotional materials.

Outcome

Since 2007, with the support and active engagement of many partners, the MSC has experienced a period of robust growth. The number of MSC logo licences has increased from 1 133 in 2013 to the current number of 1 236.

The global sum of MSC ecolabelled products available in individual countries has grown over forty fold from January 2007 to December 2014 (growing 17% in the last year). At the end of 2014, the global sum was 26 045 MSC ecolabelled products from items available in 97 countries, including new products being sold in Republic of Korea, Argentina and Vietnam among others.

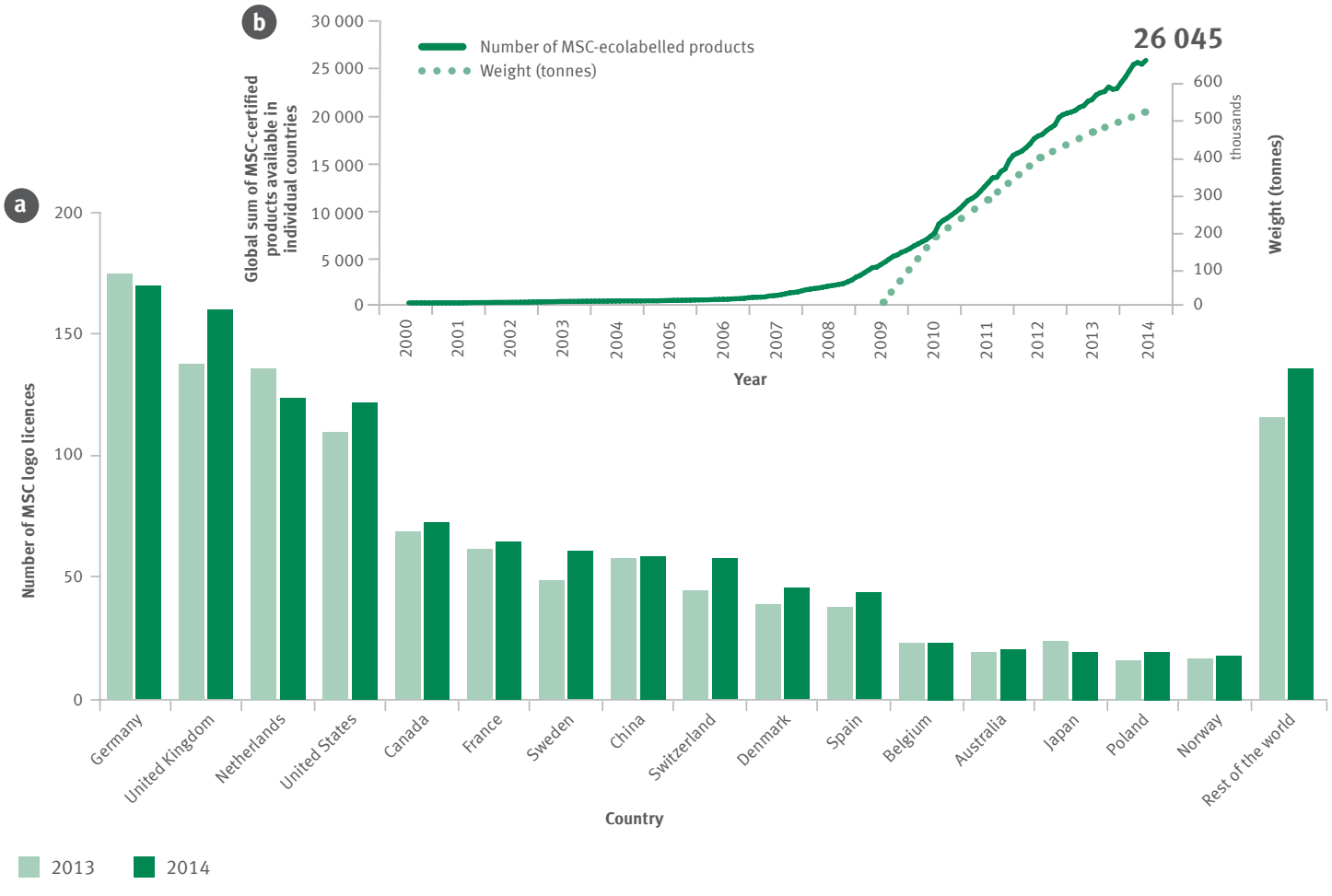


Figure 20.1
(a) The number of MSC logo licenses by country in 2013 and 2014; and
(b) The global sum of MSC-certified products available in individual countries and weight (tonnes) of MSC-ecolabelled products by year

21. Consumer recognition and recall of the MSC ecolabel

Description

In general, consumers respond positively to environmental claims and ecolabelling is an effective and credible way to communicate products' sustainability credentials. However, the success of ecolabelling schemes depends partly on consumer recognition of the ecolabel and their appreciation of its meaning. The MSC reaches out to consumers by joining forces with brands and retailers to help promote MSC-ecolabelled products and certified fisheries in retail stores. This indicator measures recognition of the MSC ecolabel by consumer familiarity with the debranded ecolabel (recognition: 'Have you seen this logo before?' when presented with a debranded ecolabel as shown in the figure on the right) and recall of the MSC ecolabel by consumer awareness of what the MSC logo stands for (recall: 'What does it mean to you?').

Outcome

In the latest survey conducted in 2014, an average of 35% of consumers in surveyed countries who bought fish at least once every two months recognised the MSC debranded ecolabel for sustainable and well managed fisheries. When shown the MSC ecolabel without text, between 20 and 58% of respondents depending on the country surveyed said they had seen it before (recognition), and of those surveyed on average 11% were able to accurately describe what the MSC ecolabel stands for (recall). All but one of the previously surveyed countries have shown an increase in consumer recognition over 2012 results. Australia, Sweden and USA show a substantial percentage change (at least 7% increase each) in consumer recognition of the MSC ecolabel between 2012 and 2014.

Definition
Proportion of seafood consumers recognising the debranded MSC ecolabel and proportion recalling information about the MSC after seeing the debranded MSC ecolabel.

Source
Independent survey data (Albemarle Marketing Research)

Relevance
Strategy Outcome Objectives 2.2

Recognition of the debranded MSC ecolabel (%)

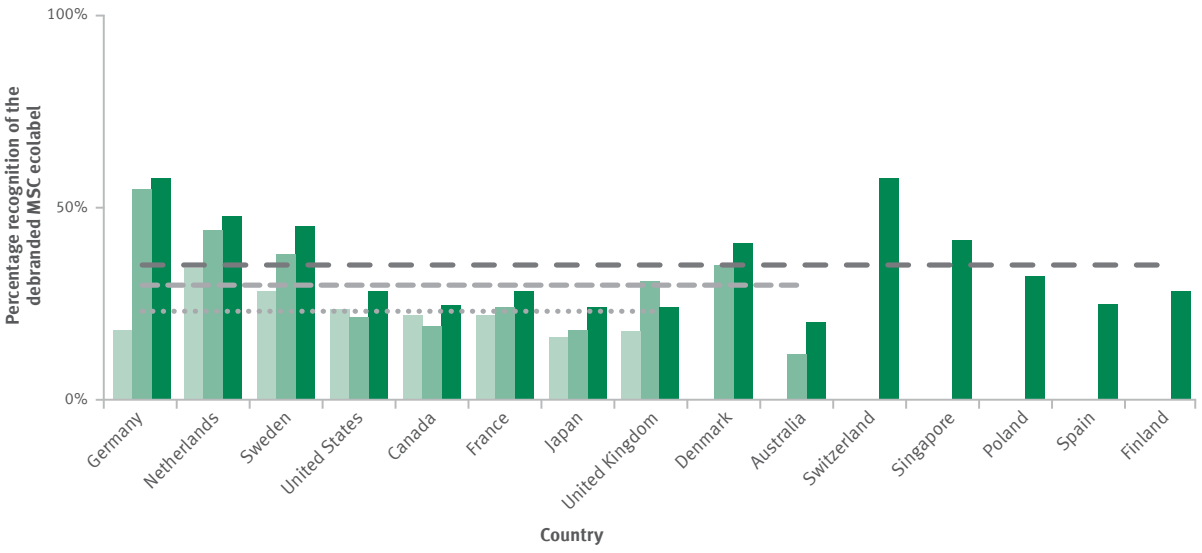


Figure 21.1
Percentage of fish buying consumers who recognise the MSC debranded ecolabel by country in 2010, 2012 and 2014 (N2010 = 4625, N2012 = 6020, N2014 = 7806). Horizontal lines represent average percentages for each year surveyed.

Recall of the debranded MSC ecolabel (%)

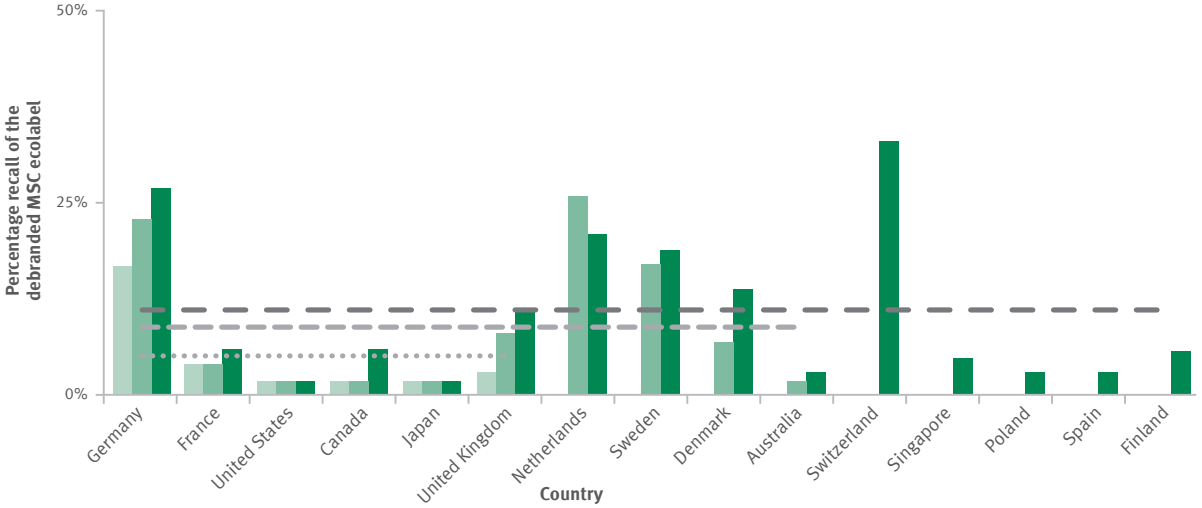


Figure 21.2
The percentage of fish buying consumers who understand the meaning of the MSC ecolabel by country in 2010, 2012 and 2014 (N2010 = 4625; N2012 = 6020; N2014 = 7806) Horizontal lines represent average percentages for each year surveyed.

22. Consumer purchasing of MSC-ecolabelled products

Definition
Proportion of seafood consumers who buy products with the MSC ecolabel.

Source
Independent survey data (Albemarle Marketing Research)

Relevance
Strategy Outcome Objectives 2.2

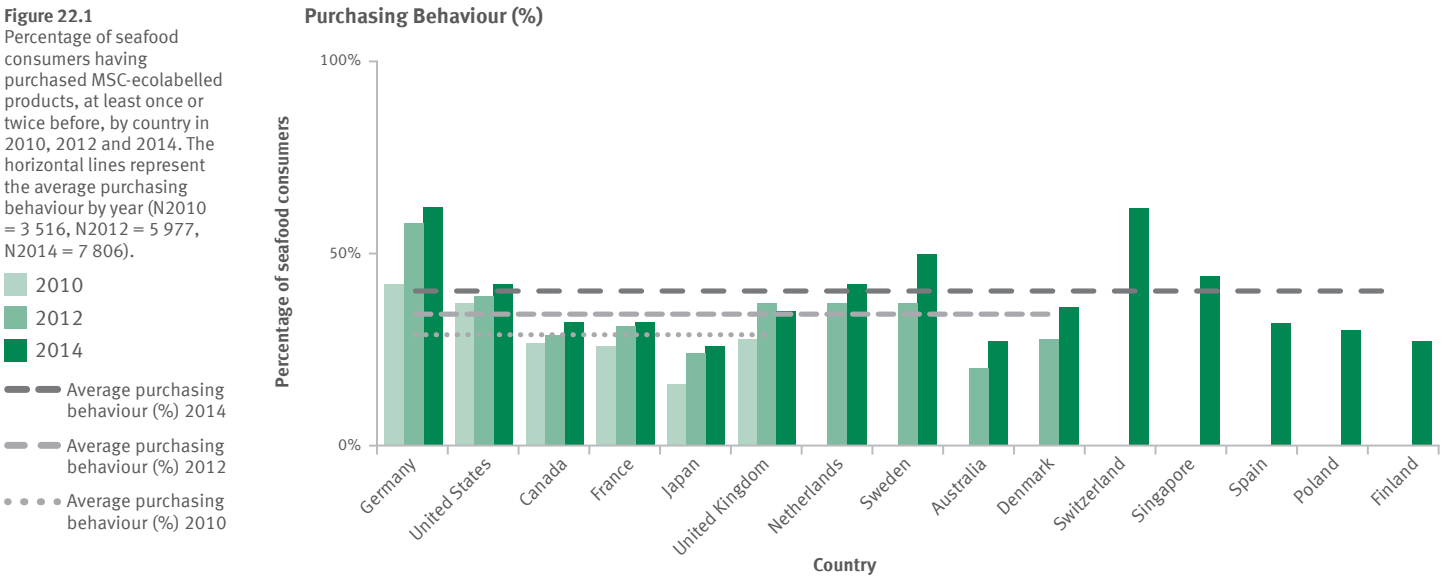
Description

Substantial fishery and commercial commitments in recent years have greatly contributed to the visibility of the MSC ecolabel in stores. Increased media coverage and joint-marketing partnerships around the world have also boosted consumer awareness and understanding of the MSC ecolabel on products and packaging. This indicator shows purchasing attitudes towards the MSC ecolabel by measuring consumers' understanding and awareness of the MSC.

Outcome

In 2014, an average of 40% of targeted seafood consumers across all countries surveyed have purchased MSC products at least once or twice before[1]. New countries surveyed in 2014 include Finland, Switzerland, Singapore, Spain and Poland. In Switzerland and Germany, 62% of surveyed individuals confirmed they have bought MSC-ecolabelled products before. Between 2012 and 2014, Sweden had a substantial increase of 13% in the number of seafood consumers having purchased MSC-ecolabelled products. Additionally, Australia and Denmark also saw an increase in purchasing behaviour of 7% and 8% respectively. The trends clearly demonstrate a growing number of consumers worldwide accessing MSC ecolabelled products that results in increased recognition of and reward to sustainable fishing and seafood supply practitioners. Consumers are increasingly able and willing to play their part in helping to safeguard fish resources for this and future generations.

Figure 22.1
Percentage of seafood consumers having purchased MSC-ecolabelled products, at least once or twice before, by country in 2010, 2012 and 2014. The horizontal lines represent the average purchasing behaviour by year (N2010 = 3 516, N2012 = 5 977, N2014 = 7 806).



1 Current consumer purchasing behaviours were shown by interviewees responding 'Yes' in response to the following question. Question: 'Do you currently buy products that carry the MSC ecolabel?' – If respondents replied 'Yes every time I buy fish' or 'I've brought it once or twice before' they were included as interviewees currently buying MSC-ecolabelled products.

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MSC Voices – Improving the MSC's Standards and assessments

Ocean of voices

Why are stakeholders important?

The MSC is a multi-stakeholder organisation and provides opportunities for industry, retailers, scientists, governments, and NGOs to be directly involved in shaping its program. In fact, the MSC's Standards, processes, and assessments are strengthened by feedback, comments, and advice given by stakeholders from around the world. Their knowledge and experience is critical to improve the MSC Standards through the policy cycle and to make sure assessments are well-informed, consistent with the rigorous MSC Standards and that issues that are important to them are taken into consideration.

Who are MSC stakeholders and how are they making a difference?

Stakeholder Engagement

Engagement in fishery assessment

Stakeholders' input helps to ensure that fishery assessments are well-informed and comprehensive, that assessment outcomes are consistent with the rigorous MSC Standards and that issues important to stakeholders are taken into consideration in the assessment. Every fishery that goes through MSC assessment will have the public comment draft assessment report (PCDR) published online for anyone to comment on, reinforcing MSC's transparent and rigorous assessment process. The assessors (CABs) take all comments into consideration and may modify the final report as necessary. To investigate stakeholders' contribution and impact on MSC fishery assessments, all comments received for 57 fisheries assessed between January 2012 and June 2013 were analysed (Figure 23.1). From 339 comments received, 100 made an influential impact with 25 comments leading to a reduction in score for a performance indicator. Fourteen resulted in new action plans for improvement; 24 resulted in improved assessment rationales; 21 resulted in changed and improved background information; 8 resulted in changed action plans; 3 resulted in changes to the assessment team; 1 resulted in changed action plan timelines; 1 resulted in a reduced score and led to the development of a new action plan; and 4 resulted in an increased score.

Engagement in the Fisheries Standard Review

By reviewing its Fisheries Standard, the MSC ensures it reflects the most up-to-date understandings of fishery science and management, and encompasses the expert knowledge of the MSC's diverse global stakeholder network. The MSC follows guidelines set by the United Nations Food and Agriculture Organization and the ISEAL (International Social and Environmental Accreditation and Labelling) Alliance that require a balance of interests to be reflected in the development or revision of MSC processes. As a result, stakeholders have the opportunity to contribute to the advancement of MSC policies and procedures that relate to the MSC fishery assessment process, CoC and other aspects of the MSC program. The Fisheries Standard Review, which occurs every 5 years, has been a two year process starting in late 2012, and involving several rounds of consultations. In addition to information online (improvements.msc.org), the MSC held workshops in the USA, UK and Chile, ensuring a broad and balanced geographical representation. Most comments came from NGOs (37%) and the fishing industry (44%), with input also received from MSC partners (certifiers, the accreditation body ASI, ISEAL), governments and scientists/researchers (Figure 23.2).

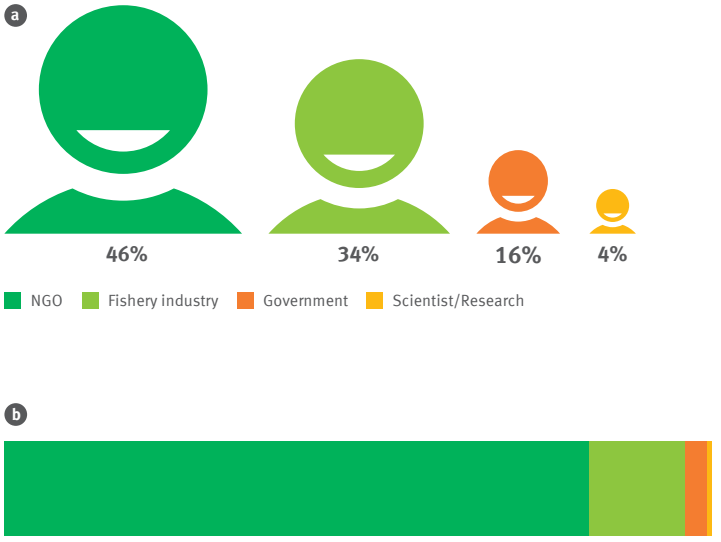


Figure 23.1
(a) Proportion of stakeholders by overarching group commenting on the fishery assessments (excluding site audit comments, N=56); (b) Proportion of comments by overarching stakeholders groups on fishery assessments (comments N=339; fisheries analysed N=57)

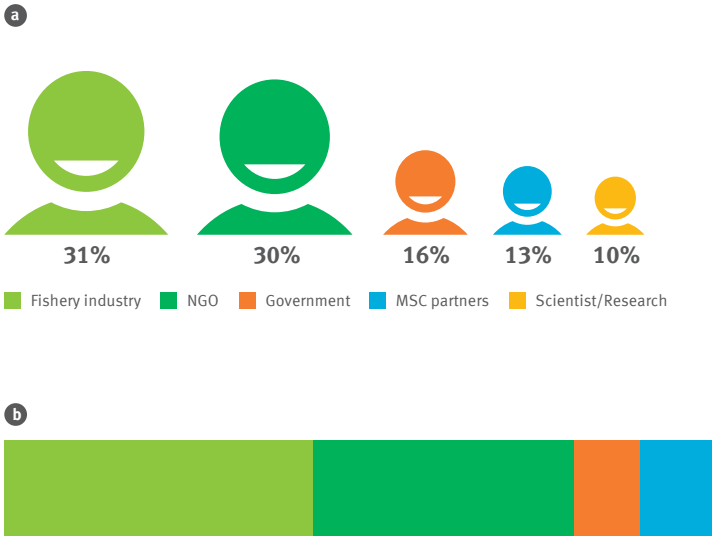


Figure 23.2
a) Proportion of stakeholders by overarching group commenting on the MSC's Fisheries Standard Review (N=70); (b) Proportion of comments by overarching stakeholders groups on Fisheries Standard review (excluding face-to-face consultation workshops; N comments=119; N=32)

Scientific Voices

The MSC is committed to being the world's leading certification program for sustainable wild-capture seafood by delivering a robust, effective and accessible program that keeps up with the latest scientific knowledge and industry practices. Therefore, recognition of the MSC program by the scientific community is a critical aspect to maintain the credibility of our program. In this respect, the number of scientific, peer-reviewed publications with substantial content discussing the MSC, both from independent institutions and from the MSC itself, has increased three-fold in the last 5 years (Figure 23.3).

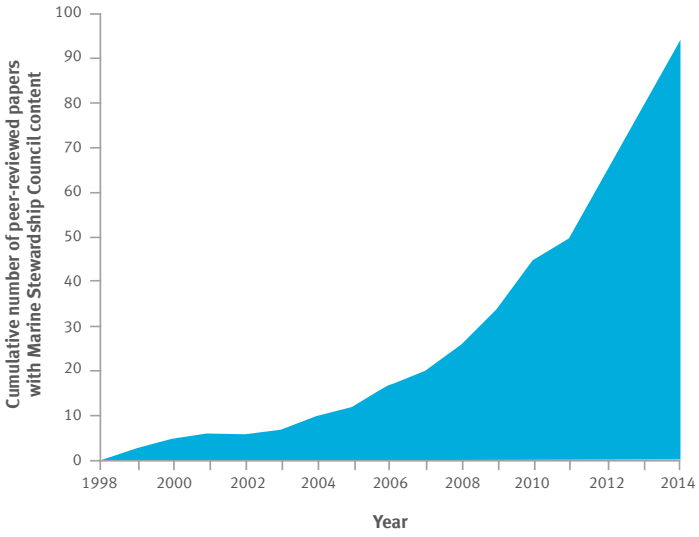


Figure 23.3
Cumulative number of peer-reviewed papers with content on the MSC from 1998 to 2014. Data were obtained from the Scopus academic database using for the search string "Marine Stewardship Council" in "Article Title, Abstract and Keywords". Abstracts and/or papers were examined to validate the data.

Global Voices

Public awareness and commitment through social media

The MSC strives to increase public awareness and commitment to seafood sustainability. Social media is an important outlet to engage with the public and transmit the MSC's vision and mission. The MSC's representation in social media platforms doubled during 2014, demonstrating an expanded public awareness of the MSC as an agent of change towards sustainable fishing practices (Figure 23.4).

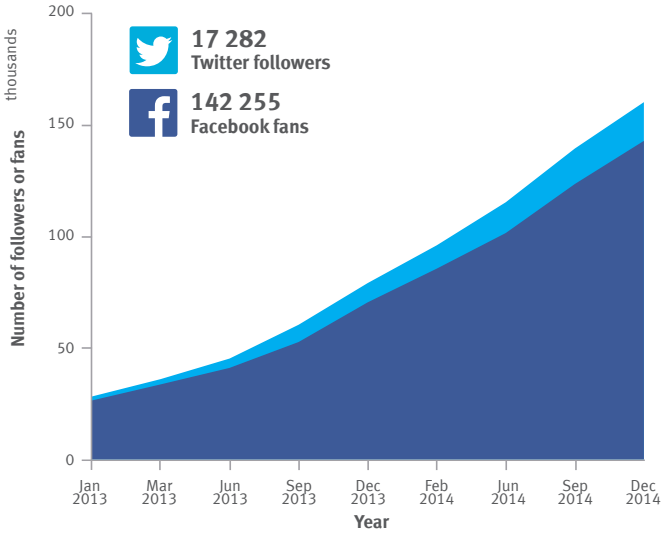


Figure 23.4
Trends in the total number of social media followers and fans.

How to get involved?

Improve the MSC

- Comment on a fishery assessment (reports available online)
- Comment on the MSC Standards and Policy Cycle **improvements.msc.org**

Get involved in the MSC program

- Get your fishery certified
- Get Chain of Custody certification
- Attend MSC webinars, training and conferences
- Work and collaborate in the science behind the MSC Standards and impacts

Global voice for the future

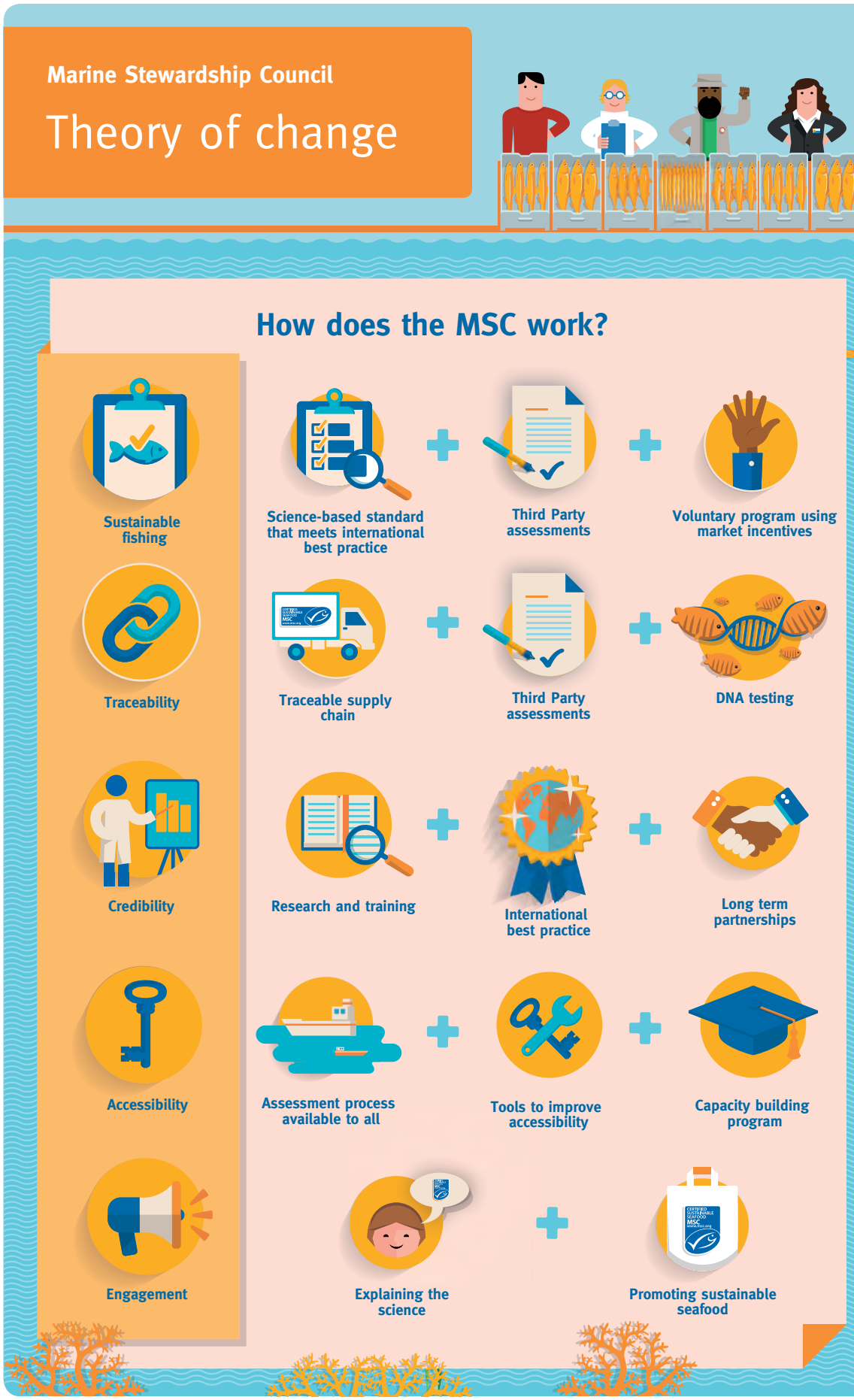
- Look for the MSC ecolabel in stores and restaurants – if it's not there, ask for it!
- Tell people about the MSC and its mission to sustain the supply of seafood for future generation
- Follow us on Twitter, Facebook, LinkedIn

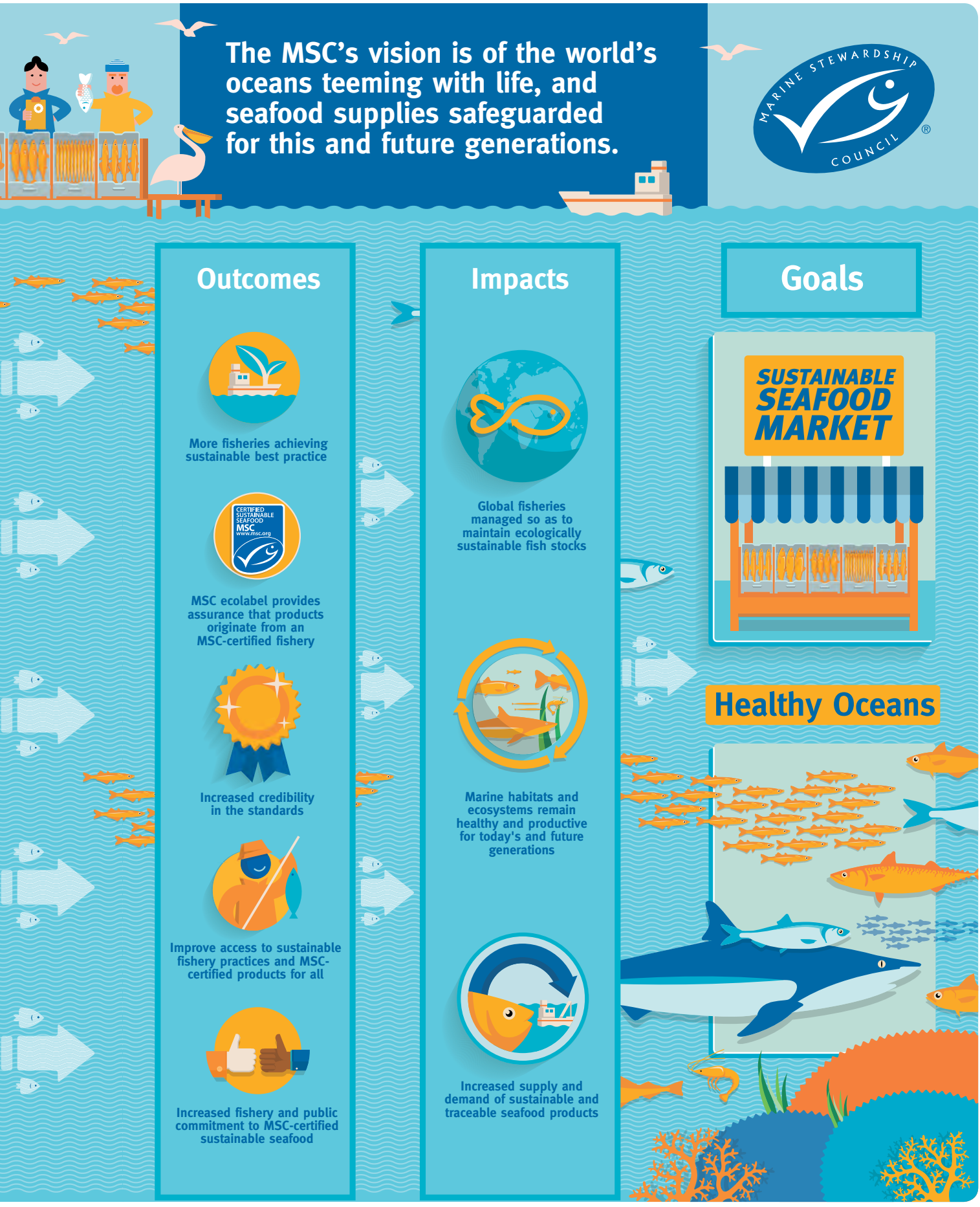
@MSCecolabel
/MSCecolabel
/marine-stewardship-council

CERTIFIED SUSTAINABLE SEAFOOD MSC www.msc.org ™

Theory of change

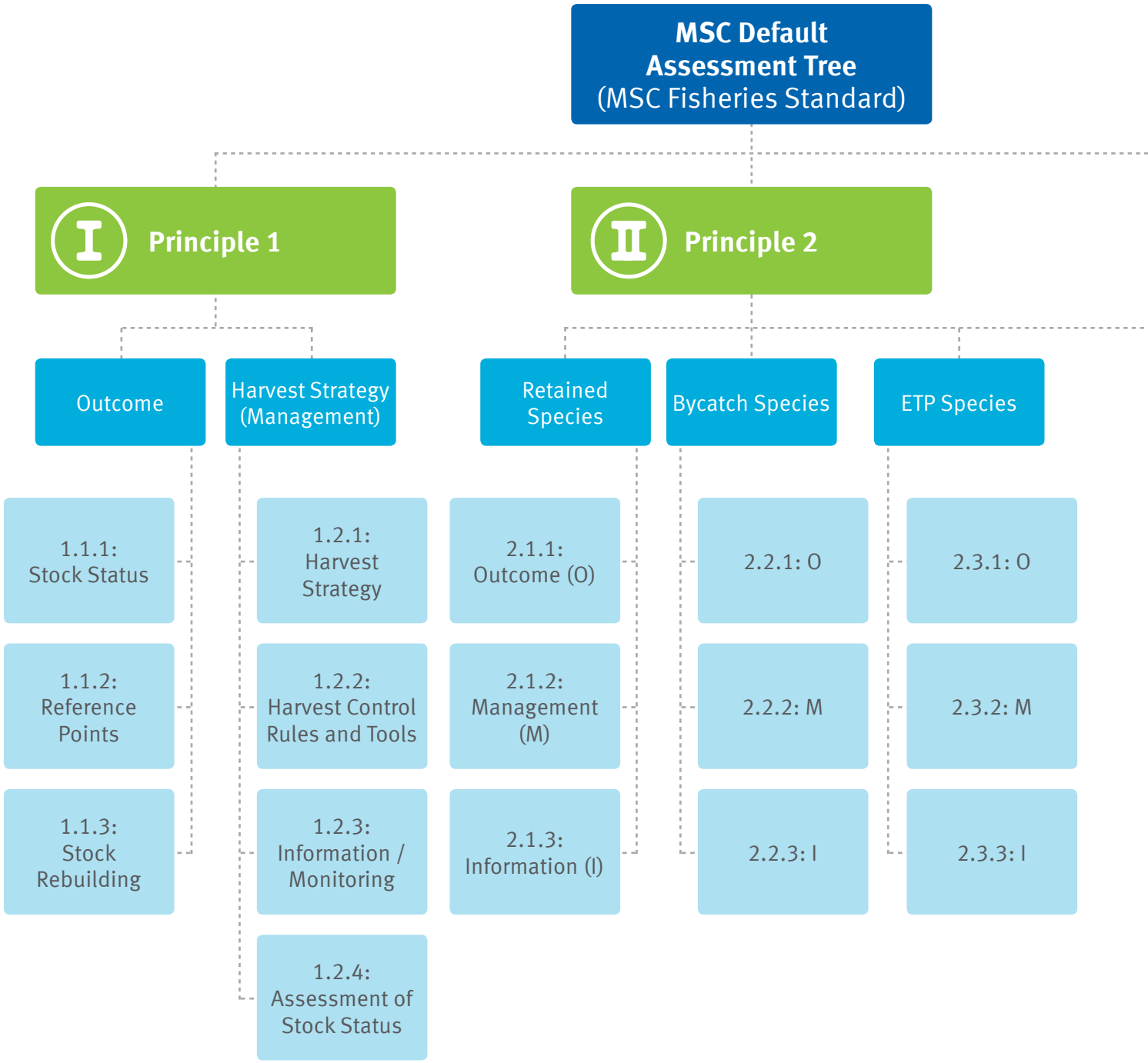
The MSC's mission is to use its certification and ecolabel program to contribute to the health of the world's oceans by recognising and rewarding sustainable fishing practices, influencing the choices people make when buying seafood, and working with our partners to transform the seafood market to a sustainable basis. We work collaboratively with the fishing industry, seafood business sector, governments, scientific communities, environmental groups, and others to give retailers, restaurants, and consumers an opportunity to choose and reward sustainable fishing through their seafood purchasing choices. This infographic is a visualisation of MSC long term goals and impacts.



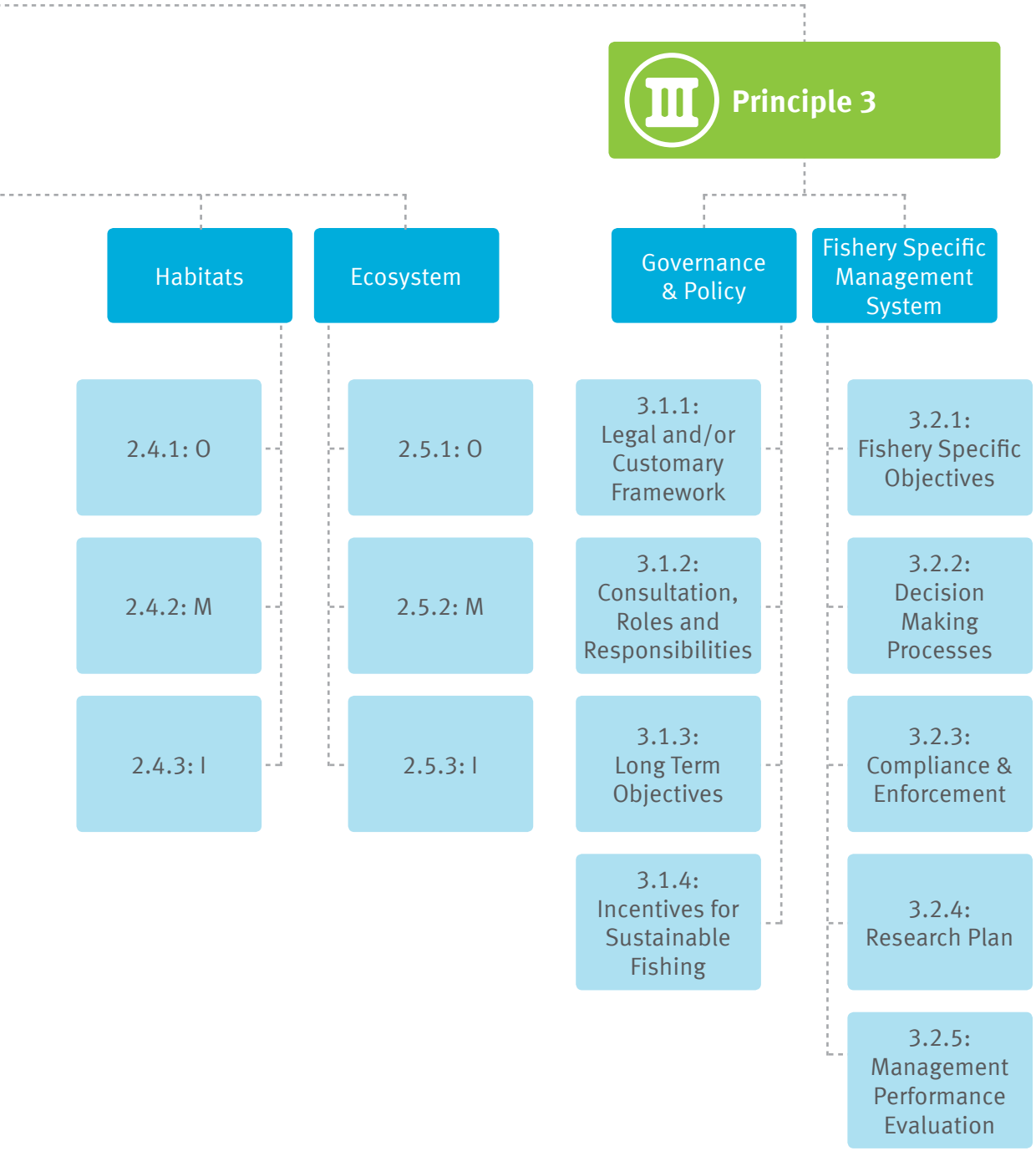

The MSC's vision is of the world's oceans teeming with life, and seafood supplies safeguarded for this and future generations.
MARINE STEWARDSHIP COUNCIL
Outcomes
More fisheries achieving sustainable best practice
CERTIFIED SUSTAINABLE SEAFOOD MSC www.msc.org
MSC ecolabel provides assurance that products originate from an MSC-certified fishery
Increased credibility in the standards
Improve access to sustainable fishery practices and MSC-certified products for all
Increased fishery and public commitment to MSC-certified sustainable seafood
Impacts
Global fisheries managed so as to maintain ecologically sustainable fish stocks
Marine habitats and ecosystems remain healthy and productive for today's and future generations
Increased supply and demand of sustainable and traceable seafood products
Goals
SUSTAINABLE SEAFOOD MARKET
Healthy Oceans

Appendix 1

MSC Principles and Criteria for Sustainable Fishing (MSC Fisheries Standard)



Marine Stewardship Council Default Assessment Tree Structure, MSC Principles and Criteria for Sustainable Fishing (MSC Fisheries Standard) (Certification Requirements V1.3, January 2013). This diagram illustrates the component groupings (turquoise boxes) and default performance indicators (pale blue boxes). V2.0 of the Fisheries Standard was released in October 2014, this Standard has 28 PIs and has substantial changes in the way cumulative fishery impacts are reported and managed. As the new Standard is increasingly utilised, GIR publications will report upon its role in promoting fishery sustainability.


Principle 3
Habitats
Ecosystem
Governance & Policy
Fishery Specific Management System
2.4.1: O
2.4.2: M
2.4.3: I
2.5.1: O
2.5.2: M
2.5.3: I
3.1.1: Legal and/or Customary Framework
3.1.2: Consultation, Roles and Responsibilities
3.1.3: Long Term Objectives
3.1.4: Incentives for Sustainable Fishing
3.2.1: Fishery Specific Objectives
3.2.2: Decision Making Processes
3.2.3: Compliance & Enforcement
3.2.4: Research Plan
3.2.5: Management Performance Evaluation

Appendix 2

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