

The Seafish Guide To Responsible and Sustainable Sourcing

This is one of a series of guides in which Seafish explores topical issues affecting the UK seafood industry. Here we take a practical look at what the terms 'responsible sourcing and sustainability' mean and how seafood buyers have approached implementing these approaches in their policies. **The main focus is on wild caught fish.**

Definitions

The terms 'Responsible' and 'Sustainable' can have different meanings dependent on cultural context. In fisheries, the meanings of these terms has evolved over the years to an understanding that 'Responsibility' relates to behaviour by humans concerned with the capture and management of fishery resources and 'Sustainability' relates to the status and trajectory of the aquatic living resources and the fisheries economically dependent on them.

There is a recognition the two are linked; that responsible behaviour can lead to enhanced sustainability. This guide explains some of the guidance, standards and information sources that are available that will enable commercial seafood buyers to gain a better understanding of responsible sourcing and sustainability in fisheries.

Responsible sourcing

An important principle of the FAOⁱ Code of Conduct for Responsible Fisheries (1995)¹; 'The FAO Code', General Principles Article 6.1;

"The right to fish carries with it the obligation to do so in a responsible manner so as to ensure effective conservation and management of the living aquatic resources."

The FAO Code is a collection of principles, goals and elements for action by fisheries authorities, with the overriding objective of conservation and management being the long-term sustainable use of fisheries resources. The responsibility for implementing the code is with Governments, in co-operation with their seafood industries and fishing communities.

Sustainability

There are many definitions of sustainability, but one of the simplest and all-encompassing is

from the Brundtland Report for the World Commission on Environment and Development (1992)² which defines sustainable development as;

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

In fisheries science, currently the meaning of this term relates to an assessment as to whether there will be continuing yields from the stock exploited by the fishery into the future (see Box 1 page 6). The dynamic nature of ecological change with, for example, ocean warming, complicates assessments of sustainability.

However, the United Nations defines;

"three pillars of sustainability; social, economic and environmental."

FAO in the State of World Fisheries and Aquaculture report³ (SOFIA report), prioritises the role of fisheries in providing benefits to society, primarily food, employment, income and nutrition and maintenance of fishing communities. So although this guide largely discusses the stock and environmental assessment aspects, it is clear that the future trends will include assessments of social and economic change and opportunity, with the backdrop of changing climate affecting natural ecosystems.

Assessments of sustainability

Optimal exploitation, which is exploitation at Maximum Sustainable Yield or 'MSY' (see Box 1 page 7) is now an agreed target of many Governments including the UK and European Union following agreement at the World Summit on Sustainable Development in Johannesburg in 2002. The concept of MSY is also well established in the United Nations Convention on the Law of the Sea (UNCLOS)

ⁱ Food and Agriculture Organisation of the United Nations

the UN fish stocks agreement and the FAO Code of Conduct for Responsible Fishing. Whilst MSY for single stocks is a desirable target, it fails to take into account multi species interactions, where fisheries are optimal for one species but not for all species caught. As shown in Box 1 (page 7) it is possible to maintain some stocks sustainably at fishing pressures other than MSY, therefore enabling managers to take other aspects into account whilst working towards optimum yields at MSY. To this end scientists are developing multi-species assessment methods which examine trade-offs between different species within a mixed fishery to be assessed.

There are effects of fisheries on marine ecosystems such as the effects of fishing gear on habitats and other species either as a mixed fishery targeting several species or species caught unintentionally (termed 'bycatch'). Some of these aspects are assessed in a similar way to fish stock assessment, with a judgment made on the basis of data whether the effects are sustainable.

However, for many stocks or fisheries' environmental effects (such as those that are 'data deficient' or 'data limited') assessment is made with expert judgment, as a substitute for quantitative risk assessments. This should be based on the best scientific knowledge of the fisheries and species concerned. Where data and information are scarce assessment methods should be designed to include an element of precaution in their advice to management.

Management

Whilst the assessment of biological sustainability is one indicator, it is the actions of the fisheries' managers which affect long term sustainability. The FAO Code of Conduct for Responsible Fisheries describes characteristics of a responsible management

system aimed at improving sustainability, whatever the initial status of the stocks. Fundamentally, wild capture fishery resources are shared resources, where competitors from the scale of individual fishers to nation states compete to catch their 'share' of the resource. Therefore the nature of the agreements between the competing parties and the actions they take, such as long term management plans to recover and maintain stocks in a sustainable condition, are the essential elements for sustainable fisheries' management.

Management agreements are especially important for wide ranging stocks that straddle several countries' Exclusive Economic Zones (EEZs) and they are organised through Regional Fisheries Management Organisations or RFMOs. These are agreements (called "coastal states' agreements") in which Governments agree to co-operate to work towards improved fisheries management.

Guidance

There is a need to distil the complexities of stock assessment and fisheries management down to a number of key elements which can be actioned by the seafood buyer. In order to do this there are a number of frameworks available ranging from voluntary codes of conduct where the seafood buyer is responsible for assessing compliance, to third party ecolabels in which the fishery is assessed against external standards by qualified scientists.

Voluntary Codes of Conduct

There is insufficient space here to review all the voluntary codes of conduct available. Rather, we shall review the voluntary code of conduct on 'environmentally responsible fish and seafood sourcing', a set of minimum criteria agreed by the Sustainable Seafood Coalition⁴ (SSC). The SSC is a group of major

retailers, processors and seafood businesses across the UK supply chain. The code defines the core elements of responsible sourcing. It is supported by a second code on the use of environmental claims. 'Responsibility' claims describe a behaviour, (e.g. responsibly sourced), and 'sustainability' claims describe the status of the fishery. The SSC is not an 'eco-label' and the logo is not used to label specific products. However, members can use the logo to demonstrate their affiliation with, and to promote the work of, the SSC.

The SSC sourcing code requires businesses to have a sourcing policy that describes how responsible sourcing decisions are made in line with the code. The elements of the code are;

1. **Traceability;** Different fisheries have different management practices and environmental effects and aquaculture practices vary between locations. There also may be Illegal, Unreported or Unregulated (IUU⁵) seafood on the market, which must be avoided. It is therefore essential to be able to trace the source of supply of the seafood back to the capture method and sea area, both from the point of view of responsible sourcing and to ensure that it has been captured in line with legal practices.
2. **Transparency;** clearly communicating responsible sourcing policies to customers is important. Communicating risk assessments to the supply chain and corresponding responses and improvements is also important.
3. **Risk assessment;** Members are expected to carry out their own audit or risk assessment, or use one created or endorsed by a third party, based on the method outlined in the code. This will lead to a low, medium or high risk outcome, which will form the basis of the purchasing decision. Members will only source with appropriate engagement and

monitoring of progress as outlined in the decision tree.

4. **Fisheries' Improvements;** Where improvements are required to move a fishery from high risk to lower risk, the code outlines how buyers should engage in Fisheries Improvement Plans (FIPs). These are collaborations between buyers, industry members and other parties such as environmental Non-Governmental Organisations (eNGOs) aimed at improving the sustainability of the fishery; see <http://fisheryprogress.org/> .

The voluntary code allows members to make a 'Responsibility' claim based on each member's own risk assessment and engagement with their supply chain. However, a sustainability claim can only be made if there is certification or an equivalent independent audit.

Information Sources

There are numerous information sources available for buyers to use in relation to responsible sourcing, ranging from scientific advice from international scientific bodies such as ICESⁱⁱ to the various fish lists produced by eNGOs and other institutions; page 8. Some of these, such as the Marine Conservation Society's Good fish Guide⁶ or Monterey Bay Aquarium's Seafood Watch⁷ provide relative risk ratings by fish stock and fishing method as a single indicator, representing an amalgam of assessment, management and environmental information.

Risk Assessment for Sourcing Seafood (RASS)

Seafish provides information on four elements relating to stock status, management, bycatch and habitat for around 360 fisheries worldwide

ⁱⁱ International Council for Exploration of the Sea
www.ices.dk

in a database; the RASS tool⁸ (www.seafish.org/rass/). The information is presented as a relative risk score and information for each of these elements separately.

Such information can be used in the implementation of risk assessments under the Voluntary SSC code above or as part of Corporate Social Responsibility programmes.

Tools for Ethical Seafood Sourcing (TESS)

This is aimed at seafood businesses who want to understand social responsibility and 'what to do' to address social responsibility issues in their supply chain, it can be found at; www.seafish.org/tess/

Future developments

Seafish, the Monterey Bay Aquarium Seafood Watch programme, and the Sustainable Fisheries Partnership (SFP) are partnering to scope out the development of a risk assessment tool for social responsibility in fisheries, the first of its kind. Using information found in the public domain about various social issues in fisheries around the world it will generate scores in low, medium and high categories of risk in the wild caught 'at sea' part of the supply chain. The information will be used in the RASS tool, Seafood Watch and SFP's Fishsource through a dedicated standalone website.

Standards

There are FAO Guidelines for the Eco-labelling⁹ of fish and fishery products from marine capture fisheries. An Eco-labelling scheme relates to a certification process which allows an on pack label claiming sustainability. The Global Sustainable Seafood Initiative (GSSI)¹⁰ is a global platform and partnership of seafood companies, NGOs, experts, governmental and intergovernmental

organizations. It provides a benchmark for eco-labelling certification schemes against the FAO Guidelines for eco-labelling, the FAO Code of conduct for Responsible fisheries and other supporting FAO implementation advice. This enables owners of on pack eco-labelling schemes to benchmark their schemes to ensure that they adhere, as a minimum to these guidelines. The schemes may also cover other issues or they might impose more strict standards on certain aspects, but the GSSI enables a benchmark against the original FAO documents. For aquaculture standards see the Seafish Guide to Aquaculture for details¹¹.

Standards for vessels

The main basis for the eco-labelling standards discussed above is an assessment of the management and biological and ecological sustainability of the fisheries resources.

The Seafish 'Responsible Fishing Scheme'¹² (www.seafish.org/rfs/) is the only global scheme that audits compliance on board commercial fishing vessels to certify best practise in responsible catching and the welfare of crew. The RFS is a voluntary scheme that focusses on five core principles, including health and safety, training and professional development, catch quality and care for the environment. The scheme provides robust and transparent third party auditing of vessels, in compliance with ISO 17065 requirements. It is a business-to-business tool giving the supply chain confidence that seafood sourced from RFS vessels is responsibly harvested. It is not an eco-label like the MSC standard for example, but compliments eco-labels, focusing on vessel practice rather than fisheries' assessment and management.

Conclusions and future trends

Responsible and Sustainable sourcing of Seafood products has undergone a substantial period of growth in recent years, founded on the basis of the Code of Conduct for Responsible Fisheries and increasing public awareness of sustainability concepts.

Information sources, voluntary codes and certification schemes have concentrated mostly on the fisheries' management and sustainability criteria. However social sustainability, including food security and the 'ethical' aspects of human welfare, equity and basic human rights is a growing field, particularly in relation to the recently published UN Agenda 2030 for Sustainable Development¹³.

Box 1 Maximum Sustainable Yield and sustainable harvesting

The concept of Maximum Sustainable Yield is illustrated in the schematic (Figure 1), which shows how catches from a stock at equilibrium would increase in line with exploitation through increased fishing pressure. Catches increase up to a point where fishing pressure on the stock causes so many fish to be caught at a relatively small size that the potential production of the stock due to growth of individual fish is not realised (“growth overfishing”). The peak of this curve represents MSY and indicates where optimum exploitation at MSY lies.

However, providing sufficient fish survive to become adults and spawn, they may still have the reproductive capacity to replace themselves and hence stocks with fishing pressure in the green section of the schematic may be regarded as sustainably harvested. There is a risk of stock collapse occurring when fishing pressure reaches a level, corresponding to the red section

of the graph, such that removals from a stock are so high, and its spawning capacity is so diminished, that fewer and fewer juveniles are produced.

So, not only is the size of the stock being reduced by too high a level of exploitation, but there are fewer juvenile fish to replace those that are caught, and stock levels are likely to fall even lower (“recruit overfishing”). The yellow area between the green (inside safe limits) and red (outside safe limits) zones in the schematic represents levels of fishing pressure that management should seek to avoid to ensure that the stock has a high probability of remaining sustainable; when it is in this area it is considered ‘at risk’. Note the shape of this curve varies between stocks; in some cases the yellow section of the graph is closer to MSY. For more details see¹⁴

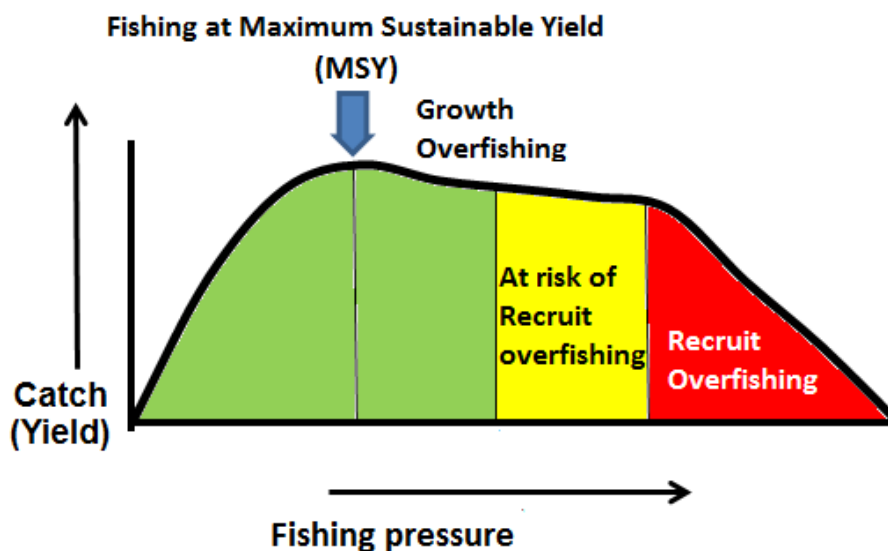


Figure 1 Schematic for Fishing Pressure in relation to Maximum Sustainable Yield

Information Sources

Inclusion does not imply endorsement

Scientific

CEFAS Centre for Environment, Fisheries and Aquaculture Science www.cefasc.co.uk
ICES; International Council for the Exploration of the Sea. www.ices.dk
Marine Scotland Science www.gov.scot/Topics/marine/science
RASS Seafish www.seafish.org/rass/

International

European Union EU http://ec.europa.eu/fisheries/index_en.htm
FAO; Food and Agriculture Organisation of the United Nations www.fao.org

Standards

Alaska Responsible Fisheries Management www.alaskaseafood.org/rfm-certification/
Friend of the Sea www.friendofthesea.org
Global Sustainable Seafood Initiative www.ourgssi.org
Marine Stewardship Council www.msc.org
Seafish Responsible Fishing Scheme (RFS) http://www.seafish.org/rfs/
Responsible Icelandic Fisheries www.responsiblefisheries.is

Fish lists

Marine Conservation Society Fishonline www.fishonline.org
Monterey Bay Aquarium; Seafood Watch www.seafoodwatch.org/
Sustainable Fisheries Partnership; Fishsource http://www.fishsource.com/

Non-Governmental Organisations

BRC British Retail Consortium www.brc.org.uk
European Fish Processors Association http://www.aipce-cep.org/
Fishery Progress; Fisheries Improvement Projects http://fisheryprogress.org/
Seafood Choices Alliance www.seafoodchoices.com
Sustainable Fisheries Partnership www.sustainablefish.org
Sustainable Seafood Coalition www.sustainableseafoodcoalition.org/

Social Responsibility

Tools for Ethical Seafood Sourcing www.seafish.org/tess/

Contact

Bill Lart; William.Lart@seafish.co.uk Seafish, Origin Way, Europarc, Grimsby N.E. Lincs DN37 9TZ UK Phone +44 (0)1472 252323

References

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- ² Report of the World Commission on Environment and Development [accessed Nov 2016] www.un-documents.net/wced-ocf.htm
- ³ The State of World Fisheries and Aquaculture (SOFIA)[accessed Nov 2016] www.fao.org/fishery/sofia/en
- ⁴ Sustainable Seafood Coalition [accessed Nov 2016] www.sustainableseafoodcoalition.org/
- ⁵ The Seafish Guide to IUU [accessed Nov 2016] <http://www.seafish.org/media/publications/SeafishGuidetoIUU07-2016.pdf>
- ⁶ Good Fish Guide [accessed Nov 2016] www.goodfishguide.org/
- ⁷ Monterey Bay Seafood Watch [accessed Nov 2016] www.seafoodwatch.org/
- ⁸ Seafish Risk Assessment for Sourcing Seafood tool [accessed Nov 2016] www.seafish.org/rass/
- ⁹ Guidelines for the Ecolabelling of fish and fishery products from marine capture fisheries [accessed Nov 2016] www.fao.org/docrep/012/i11119t/i11119t.pdf
- ¹⁰ Global Sustainable Seafood Initiative [accessed Nov 2016] www.ourgssi.org/
- ¹¹ The Seafish Guide to Aquaculture [accessed Nov 2016] http://www.seafish.org/media/1643138/final_seafishguidetoaquaculture_final.pdf
- ¹² The Seafish Guide to The Responsible Fishing Scheme [accessed Nov 2016] http://www.seafish.org/media/publications/Guide_to_RFS_-_October_2015.pdf
- ¹³ Transforming our world the 2030 Agenda for Sustainable Development [accessed Nov 2016] <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
- ¹⁴ Fish Stock assessment models and ICES reference points Seafish Information Sheet FS86_11_15 [accessed Nov 2016] http://www.seafish.org/media/publications/FS86_11_15_Fish_stock_assessment_models_and_ref_points.pdf