

# An Assessment of Seafood Quality Certification Systems for World-Best-Practice Sustainable Production in Australia



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International ISS Institute/DEEWR Trades Fellowship

Fellowship supported by the Department  
of Education, Employment and Workplace  
Relations, Australian Government



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# Executive Summary

The Australian Seafood Industry faces the challenge of overcoming the lack of competitive edge for local products. Although the domestic market for seafood is expanding, it is predicted that Australian seafood producers will continue to face aggressive competition from imports.<sup>1</sup> Furthermore, supermarket chains such as Woolworths and Coles are placing increasing demands on seafood producers to show proof of sustainable production methods. Export market growth is being hindered by increased costs of production and a high Australian dollar.

Certification of product against a number of domestic and international standards is an important means by which Australian seafood producers can compete more effectively in domestic and export markets. In order to achieve this, however, current skill and knowledge deficiencies regarding certification processes need to be rectified. These deficiencies encompass areas such as:

- Food Safety/Hazard Analysis Critical Control points (HACCP)
- Traceability
- Supply Chain Assurance
- Environmental Management
- Biosecurity
- Occupational Health and Safety
- Eco-labelling
- Organic Produce
- Animal Welfare.

An overseas research program enabled the Fellow to gain new skills and insights to achieve more effective standards and processes for Australian seafood quality certification. The Fellow completed training and practical work for a number of international third-party seafood certification systems. Detailed discussions were also held with government and industry stakeholders involved in the seafood product quality certification process.

Certification must become an accepted cost of production for the Australian Seafood Industry. In the medium to long term, however, the adoption of credible certification systems will result in improved product quality and better financial returns.

The Australian Seafood Industry now has a new set of skills and insights available to it through the Fellow to advance its capacity to develop, implement and market seafood products under internationally recognised certification schemes. Progress is already being made. One such scheme is an 'Australian Made/Australian Grown' brand and logo being developed by Seafood Services Australia (SSA), Seafood Experience Australia (SEA) and the Australian Made/Australian Grown Campaign (AMAGC) for use by the Australian seafood producers (wild harvest and aquaculture), processors, distributors, retailers and exporters. The plan is to publicise the 'world leading' Environmental Management Practices of the Australian Seafood Industry.<sup>2</sup>

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<sup>1</sup> Since 2003-04 the real value of Australian fisheries imports has risen by \$153 million (12 per cent), being mostly driven by greater imports of fresh, chilled and frozen prawns and frozen fish fillets (ABARE July 2009, 'Australian fisheries statistics 2008', Canberra).

<sup>2</sup> <http://www.seafood.net.au/page/?pid=1262&nid=465>

# Executive Summary

The Australian Seafood Industry now has a new set of skills and insights available to it through the Fellow to advance its capacity to develop, implement and market seafood products under internationally recognised certification schemes. Progress is already being made. One such scheme is an 'Australian Sustainable Seafood' brand and logo being developed by Seafood Services Australia (SSA) and Australian Made Campaign Ltd (AMCL) for use by the Australian aquaculture, fishing, processing, transportation, storage, labelling and sales sectors.

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# Abbreviations and Acronyms

ACC	Aquaculture Certification Council USA
AFISC	Agri-Foods Industry Skills Council
AIFI	International Association of Fish Inspectors
AMAGC	Australian Made/Australian Grown Campaign
AMCL	Australian Made Campaign Ltd
ANAB	American National Accreditation Board (ANSI-ASQ National Accreditation Board USA)
ANSI	American National Standards Institute
ASA	AgriFood Skills Australia
ASC	Aquaculture Stewardship Council
ASCRC	Australian Seafood Co-operative Research Centre
ASI	Accreditation Services International
ASMF–CoP	Australian Sustainably Managed Fisheries Code of Practice
ASQ	American Society for Quality
B2B	Business-to-Business
B2C	Business-to-Consumer
BAP	Best Aquaculture Practice
BIM	Irish Sea Fisheries Board
BRC	British Retailer Consortium
CB	Certification Bodies
CCM	Certification Committee Meetings
COFI	Committee on Fisheries – a subsidiary body of the FAO Council
COFRAC	Comité Français d’Accréditation (French national accreditation body)
CQM	Certified Quality Mussels
CQO	Certified Quality Oysters
CQS	Certified Quality Salmon
CQT	Certified Quality Trout

# *Abbreviations and Acronyms*

CU	Competency Units
DAFF	Australian Department of Agriculture, Forestry & Fisheries
DEEWR	Australian Department of Education, Employment & Workplace Relations
EMS	Environmental Management System
ENxxxx	European Normative number xxxx
EN45011	Standard for the European accreditation of bodies involved in product certification
ENGO	Environmental Non Government Organisation
EPBC	Environmental Protection and Biosecurity Conservation
EU	European Union
FAO	United Nations Food and Agricultural Organisation
FCI	Food Certification International Ltd
FF	Freedom Foods
FotS	Friend of the Sea
FRDC	Australian Fisheries Research and Development Corporation
FSAI	Food Safety Authority of Ireland
FW	Freshwater
GAA	Global Aquaculture Alliance
GAP	Good Agricultural Practice
GB	Governing Board
GFSI	Global Food Safety Initiative
GMO	Genetically Modified Organism
GRI	Global Reporting Initiative
GT	Global Trust
HACCP	Hazard Analysis and Critical Control Point
IAF	International Accreditation Forum
IAFI	International Association of Fish Inspectors

# Abbreviations and Acronyms

IASP	International Association of Seafood Professionals
IFFO	International Fishmeal & Fish Oil Organisation
IFQC	International Food Quality Certification Ltd
IFOAM	International Federation of Organic Agriculture Movements
INAB	Irish National Accreditation Board
IQx	Irish Quality Wild Salmon (IQWS), Irish Quality Salmon (IQS), Irish Quality Mussels (IQM) and Irish Quality Trout (IQT)
ISEAL	International Social and Environmental Accreditation and Labelling
ISO/IEC	International Organisation for Standardisation
ISOxxx	International Organisation for Standardisation code number xxx
ISO Guide 65	Standard for the international accreditation of bodies involved in product certification
ISS Institute	International Specialised Skills Institute Inc
IUU	Illegal, Unreported and Unregulated Fishing
JAS-ANZ	Joint Accredited Standards Australia & New Zealand
Moody	Private certification body based in UK
MSC	Marine Stewardship Council
NABCB	National Accreditation Board of Certification Bodies
NAC	National Aquaculture Council
NATA	National Association of Testing Authorities
NGO	Non Government Organisation
NSF Intl	The National Sanitation Foundation, NSF International
NZ	New Zealand
OECD	Organisation for Economic Cooperation and Development
PAP	Promoting Australian Produce Program
QSP	Quality Seafood Program
RABQSA Intl	Registrar Accreditation Board Quality Society of Australasia Intl

# *Abbreviations and Acronyms*

RILA	Retail Industry Leaders Association
RM	Risk Management
RPL	Recognition of Prior Learning
RSPCA	Royal Society for Prevention of Cruelty to Animals (UK)
SAI Global	Accreditation body based in Australia
SCC	Standards Council of Canada, accreditation body
SCS	Scientific Certification System, private certification body based in USA
SEA	Seafood Experience Australia
Seafood Trust	Accreditation brand for Global Trust
SFI	Seafood Industry Training Package
SFM	Sydney Fish Market
SQS	Scottish Quality Salmon
SQF	Safe Quality Food
SSA	Seafood Services Australia
SW	Seawater
TAC	Technical Advisory Committee
TAFE	Technical and Further Education
TPECS	Training Provider And Examiner Certification Scheme
TQCSI	Accreditation body based in Australia
UKAS	United Kingdom Accreditation Service
WWF	World Wildlife Fund for Nature

## **Accreditation**

Formal recognition of the competence of a calibration, testing, inspection or certification service to carry out specific tests or conformity assessments according to internationally specified requirements.

## **Accreditation Body (AB)**

An Accreditation Body is an authoritative body that gives formal recognition that a body or person is competent to carry out specific tasks. For the purposes of this report it can be further defined as a Body that accredits bodies for the certification of programs, including management systems, products, persons, or similar activities. Therefore, the AB endorses a conformity assessment body's (CAB's) competence, credibility, independence and integrity in carrying out its conformity assessment activities (ie JAS-ANZ, MSC, IAF etc.).

## **Better Management Practices (BMPs)**

Practices considered the best means currently available for solving a specific problem. In the realm of aquaculture BMPs refer to practices that can be applied for the prevention of natural resource and eco-system related problems.

## **Biosecurity**

A health plan or measures designed to protect a population from transmissible infectious disease.

## **Certification**

A procedure by which a third party gives written assurance that a product, process or service conforms to pre-specified requirements.

## **Certification or Conformity Assessment Body**

Body that performs assessment services and that can be the object of accreditation (ISO/IEC 17011:2004).

## **Certifier**

A company or individual undertaking an audit.

## **Certification Program**

A system of rules, regulations and procedures used for carrying out certification.

## **Chain of Custody**

Path taken by raw materials, processed materials and finished products from the primary producer to the end consumer, including all successive stages of farming, harvesting, processing, transformation, manufacturing, storage and distribution.

## **Conformity Assessment**

Systematic examination to verify whether a product, process or service satisfies predetermined requirements. The requirements may be specified in legal ordinances, standards and manufacturer's documentation or by some other means.

## **Design**

Design is problem setting and problem solving. Design is a fundamental economic and business tool. It is embedded in every aspect of commerce and industry and adds high value to any service or product – in business, government, education and training and the community in general. *Reference: 'Sustainable Policies for a Dynamic Future', Carolynne Bourne AM, ISS Institute 2007.*

## **ISEAL**

An umbrella concept that encompasses verification, certification and accreditation.

## **Food Safety**

Assurance that food will not cause harm to the consumer when it is prepared and/or consumed according to its intended use.

## **Food Quality**

All the features and characteristics of a product that bear on its ability to satisfy stated or implied needs.

## **Genetically Modified Organism (GMO)**

An organism that has been transformed by the insertion of one or more isolated gene sequence/s.

## **Innovation**

Creating and meeting new needs with new technical and design styles (new realities of lifestyle). *Reference: 'Sustainable Policies for a Dynamic Future', Carolynne Bourne AM, ISS Institute 2007.*

## **Inspection**

Examination of a product, service, process or installation to determine its conformity to specific or general requirements.

## **Label**

A symbol placed on a product certifying a product or the process to make the product comply with particular standards. A label is usually owned by the standard-setting body and may be used in communication between business operators (business-to-business [B2B] label) or to end consumers (business-to-consumer [B2C] label).

## **Mandatory Standard**

Mandatory Standard is a standard whose application is made compulsory by law or regulation.

## **Normative Documents**

These are documents such as standards, mandatory standards, technical specifications, codes of practice and regulations.

## **Processes and Production Methods (PPMs)**

The way in which products or services are manufactured, produced and/or processed or the way in which natural resources are extracted or harvested. PPMs can have two types of social and environmental impacts. A process or a production method can affect the characteristics of a product so that the product itself may have an impact when it is consumed or used (product-related PPMs). Alternatively, the process or the production method can have a social or environmental impact during the production, harvesting or extraction stage that does not have a discernible impact on the product or service (non-product related PPMs).

## **Skills deficiency**

A skill deficiency is where a demand for labour has not been recognised and where accredited courses are not available through Australian higher education institutions. This demand is met where skills and knowledge are acquired on-the-job, gleaned from published material, or from working and/or study overseas. There may be individuals or individual firms that have these capabilities. However, individuals in the main do not share their capabilities, but rather keep the IP to themselves; and over time they retire and pass away. Firms likewise come and go. *Reference: 'Directory of Opportunities. Specialised Courses with Italy. Part 1: Veneto Region', ISS Institute, 1991.*

## **Standard**

Document that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.

## **Standard Holding Body**

Any governmental or private entity/body that runs a certification program.

## **Standards System**

All the component functions involved in the application of a specific standard, ranging from its definition and implementation, through capacity building to certification and accreditation.

## **Sustainability**

The ISS Institute follows the United Nations NGO on Sustainability, "*Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*" *Reference: [http://www.unngosustainability.org/CSD\\_Definitions%20SD.htm](http://www.unngosustainability.org/CSD_Definitions%20SD.htm)*

## **Traceability**

This is the ability to track the movement of a food product through stages of production, processing and distribution.

## **Verification**

All activities that allow compliance with a standard to be evaluated, verification includes auditing, certification and accreditation.

# Acknowledgments

David O'Sullivan would like to thank the following individuals and organisations who gave generously of their time and their expertise to assist, advise and guide him throughout the Fellowship program.

## **Awarding Body - International Specialised Skills Institute (ISS Institute)**

**We know that Australia's economic future is reliant upon high level skills and knowledge, underpinned by design and innovation.**

The International Specialised Skills Institute Inc (ISS Institute) is an independent, national organisation, which has a record of nearly twenty years of working with Australian industry and commerce to gain best-in-the-world skills and experience in traditional and leading-edge technology, design, innovation and management. The Institute has worked extensively with Government and non-Government organisations, firms, industry bodies, professional associations and education and training institutions.

The Patron in Chief is Sir James Gobbo AC, CVO. The ISS Institute Board of Management is Chaired by Noel Waite AO. The Board comprises Franco Fiorentini, John Iacovangelo, Lady Primrose Potter AC and David Wittner.

Through its CEO, Carolynne Bourne AM, the ISS Institute identifies and researches skill deficiencies and then meets the deficiency needs through its *Overseas Skill Acquisition Plan (Fellowship Program)*, its education and training activities, professional development events and consultancy services.

Under the Overseas Skill Acquisition Plan (Fellowship Program) Australians travel overseas or international experts travel to Australia. Participants then pass on what they have learnt through reports, education and training activities such as workshops, conferences, lectures, forums, seminars, and events, therein ensuring that for each Fellowship undertaken many benefit.

As an outcome of its work, ISS Institute has gained a deep understanding of the nature and scope of a number of issues. Four clearly defined economic forces have emerged out of our nearly twenty years of research. The drivers have arisen out of research that has been induced rather than deduced and innovative, practical solutions created - it is about thinking and working differently.

### **A Global Perspective. 'Skills Deficiencies' + 'Skills Shortages'**

Skill deficiencies address future needs. Skill shortages replicate the past and are focused on immediate needs.

Skill deficiency is where a demand for labour has not been recognised and where accredited courses are not available through Australian higher education institutions. This demand is met where skills and knowledge are acquired on-the-job, gleaned from published material, or from working and/or study overseas. This is the focus of the work of ISS Institute.

There may be individuals or firms that have these capabilities. However, individuals in the main do not share their capabilities, but rather keep the IP to themselves; and over time they retire and pass away. Firms likewise come and go. If Australia is to create, build and sustain Industries, knowledge/skills/understandings must be accessible trans-generationally through nationally accredited courses and not be reliant on individuals.

Our international competitors have these capabilities as well as the education and training infrastructure to underpin them.

Addressing skill shortages, however, is merely delivering more of what we already know and can do to meet current market demands. Australia needs to address the **dual** challenge – skill deficiencies and skill shortages.

# Acknowledgments

Identifying and closing skills deficiencies is vital to long-term economic prospects in order to sustain sectors that are at risk of disappearing, not being developed or leaving our shores to be taken up by our competitors. The only prudent option is to achieve a high skill, high value-added economy in order to build a significant future in the local and international marketplace.

## **The Trades**

The ISS Institute views the trades as the backbone of our economy. Yet, they are often unseen and, in the main, have no direct voice as to issues which are in their domain of expertise. The trades are equal, but different to professions.

The ISS Institute has the way forward through its 'Master Artisan Framework for Excellence. A New Model for Skilling the Trades', December 2004. The Federal Government, DEEWR commissioned ISS Institute to write an Australian Master Artisan School, Feasibility Plan.

In 2006, the ISS Institute established an advisory body, the **Trades Advisory Council**. The members are Ivan Deveson AO; Martin Ferguson AM, MP, Federal Labor Member for Batman; Geoff Masters, CEO, Australian Council of Educational Research; Simon McKeon, Executive Chairman, Macquarie Bank, Melbourne Office, and Julius Roe, National President Australian Manufacturing Workers' Union. ISS Institute also puts on record its gratitude to the former Chairman of Visy Industries, the late Richard Pratt, for his contribution as a member of the Trades Advisory Council.

## **Think and Work in an Holistic Approach along the Supply Chain – Collaboration and Communication**

Our experience has shown that most perceive that lack of skills is the principal factor related to quality and productivity. We believe that attitudes are often the constraint to turning ideas into product and a successful business; the ability to think laterally, to work and communicate across disciplines and industry sectors, to be able to take risks and think outside the familiar, to share – to turn competitors into partners.

Australia needs to change to thinking and working holistically along the entire Supply Chain; to collaborate and communicate across industries and occupations – designers with master artisans, trades men and women, Government agencies, manufacturers, engineers, farmers, retailers, suppliers to name a few in the Chain.

## **'Design' has to be seen as more than 'Art' discipline – it is a fundamental economic and business tool for the 21st Century**

Design is crucial to the economic future of our nation. Australia needs to understand and learn the value of design, the benefits of good design and for it to become part of everyday language, decision making and choice.

Design is as important to the child exploring the possibilities of the world, as it is to the architect developing new concepts, and as it is to the electrician placing power points or the furniture designer working with a cabinet-maker and manufacturer. As such, design is vested in every member of our community and touches every aspect of our lives.

Our holistic approach takes us to working across occupations and industry sectors and building bridges along the way. The result has been highly effective in the creation of new business, the development of existing business and the return of lost skills and knowledge to our workforce, thus creating jobs – whereby individuals gain; industry and business gain; the Australian community gains economically, educationally and culturally.

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# Acknowledgments

## Fellowship Supporter

This Fellowship has been supported by the Department of Education, Employment and Workplace Relations (DEEWR), Australian Government.

The Australian Government's Department of Education, Employment and Workplace Relations (DEEWR) implements Government policies and programs to provide education and training opportunities for all Australians, to increase employment participation and to ensure fair and productive workplaces. Education, training and workforce participation are central to our goal of building a productive and socially inclusive nation, one which values diversity and provides opportunities for all Australians to build rewarding social and economic lives. O'Sullivan would like to thank them for providing funding support for this Fellowship.

## Supporters

- **Agri-Foods Industry Skills Council**  
Arthur Blewitt, Chief Executive Officer
- **Australian Seafood Cooperative Research Centre**  
Jayne Gallagher, Program Leader Seafood Quality and President of International Association of Fish Inspectors
- **Fisheries Research and Development Corporation**  
Jo-Anne Ruscoe, People Development Manager
- **IFQC Ireland (now called Global Trust)**  
Peter Marshall, Chief Executive Officer  
Cormac O'Sullivan, Specialist  
Dave Garforth, Specialist,  
Antonio Hervas, Specialist  
Bill Paterson, Specialist
- **National Aquaculture Council**  
Simon Bennison, Chief Executive Officer
- **Seafood Experience Australia**  
Roy Palmer, Executive Officer, foundation member of IAFI/IASP.

## Organisations Associated with the Australian Seafood Industry

### Government

- Fisheries Research and Development Corporation (FRDC)
- Department of Education, Employment & Workplace Relations (DEEWR)
- Department of Agriculture, Forestry & Fisheries (DAFF)

# Acknowledgments

## **Industry**

- Seafood Experience Australia (SEA)
- Australian Seafood Cooperative Research Centre (ASCRC)
- Seafood Services Australia (SSA)
- Sydney Fish Market (SFM)

## **Professional Associations**

- National Aquaculture Council (NAC)
- State/Territory Seafood Councils

## **Education and Training**

- Agrifood Skills Australia (ASA)
- Seafood Training Committee and state boards
- Registered Training Organisations, TAFEs and private providers

## **Community**

- Wholesalers, retailers and consumers.

# About the Fellow

**Name:** David O'Sullivan

## **Employment**

- Director and Principal Consultant, Dosaqua Pty Ltd
- Director, National Aquaculture Training Institute Pty Ltd

## **Qualifications**

- Bachelor of Science, Melbourne University, 1979
- Bachelor of Science (Honours), Monash University, 1980
- Environmental Systems Auditor – RABQSA-EM, RABQSA-AU, RABQSA-TL, SAI Global, 2005
- Certificate IV in Training and Assessment (TAA40104), Workplace Learning Initiatives Pty Ltd, 2006
- Certificate IV in Seafood Industry (Aquaculture SFI40104), North Melbourne Institute of Technology, 2008
- Diploma in Seafood Industry (Aquaculture SFI50104), North Melbourne Institute of Technology, 2009
- Food Safety/HACCP/ISO 22000/Lead Auditor course – RABQSA-FS, RABQSA-AU, RABQSA-TL, John L Bates & Associates Pty Ltd, 2009
- Aquaculture & Fisheries Certification, IFQC Ltd, 2009
- IFQC Auditor Procedures, IFQC Ltd, 2009

## **Memberships**

- AIAS Certification as Stage 3 (Leading) Professional, and Certified Practising Agriculturist (CPAg)
- Member, International Association of Fish Inspectors (AIFI)

David O'Sullivan is committed to improving the Australian Seafood Industry. He has been involved in information dissemination and workplace training since 1986, not only through industry workshops and seminars but also as a lecturer at three universities and several TAFE colleges.

His consulting specialities include project development and downstream management; industry status and potential; freshwater crayfish production; expert witness; environmental management/impact assessment; feasibility and risk analyses; risk management; industry liaison and extension; and independent assessments.

He has also served on industry and government committees and working groups. Within the Australian Aquaculture Industry the Fellow is one of its best-known identities, largely due to his 23 year association with the industry magazine, 'Austasia Aquaculture'.

Since 1988 the Fellow has co-authored the annual 'Status Report on Australian Aquaculture'. This annual report is recognised as the most accurate estimate on industry production and value regarding the status of aquaculture in Australia. He is a major commentator on industry issues and trends and has been active in promoting Indigenous aquaculture and training programs.

# About the Fellow

## Other Career Highlights

- 1986: Established 'Austasia Aquaculture', Australia's most widely read aquaculture publication. Since 1991 he has remained the magazine's principal correspondent, but is also published widely in other national and international periodicals.
- 1992: Jointly established the consulting partnership – PSM Group Pty Ltd – that provides consultancy and advisory services to the industry in Australia, and has been involved in several overseas projects. This business closed in 2002 due to two directors leaving the industry.
- 1995–2007: Established OzeFish Books, a sales and publishing outlet for information, reports, books and manuals for the aquaculture industry.
- 1996: Facilitated the establishment of the Australian Aquaculture Forum, the industry's peak representative body (now called the National Aquaculture Council).
- 1998: Wrote the 'AAF/NAC Code of Conduct' to assist the sustainable development of the industry.
- 1999: With AusAID funds jointly established a 100-tonne/yr marine finfish farm in Philippines.
- 1999: Prepared the 'Guidelines for the Protection of Aquaculture Waters in Australia and New Zealand'.
- 1999–2000: Co-wrote the aquaculture competency units for Seafood Training Australia's Seafood Industry Training Package, the national training program for the next 10 years.
- 2000: Established the National Aquaculture Training Institute (NATI) Pty Ltd to provide improved training opportunities in the workplace for the aquaculture industry.
- 2003: Co-wrote the 'Energy Usage By The Aquaculture and Associated Industries On The Eastern Eyre Peninsula', to detail current and future energy requirements.
- 2004: Jointly established Australis Aquaculture Ltd., which successfully floated on the ASX in August 2004. The company is now marketing more than 2,000 tonnes of Barramundi per year from its NE USA recirculating aquaculture facility and Vietnamese seaweed farm, as well as third party sources.
- 2004: Involved in the industry review of the nationally accredited Seafood Industry Training Package to make the package more useful for industry.
- 2008: Received the SA FarmBis Award of Merit for 'Training for Indigenous People'.
- 2008: Awarded the 'International ISS Institute/DEEWR Trades Fellowship' for skills acquisition in seafood product certification.

# Aims of the Fellowship Program

The objective of the Fellowship was to enable the Fellow to gain new skills and insights into the conduct and management of effective audits for seafood product certification.

The Australian Seafood Industry now has access to skills and insights gained by the Fellow that will enhance the industry's capability to develop, implement and promote internationally recognised seafood certification schemes. One such scheme is an 'Australian Sustainable Seafood' brand and logo for use by the Australian aquaculture, fishing, processing, transportation, storage, labelling and sales sectors. This scheme is being developed by Seafood Services Australia (SSA) and Australian Made Campaign Ltd (AMCL).

The Fellowship provided access to training opportunities and hands-on experience in a number of international third-party seafood certification systems. It also facilitated new networks with international certification bodies and auditors.

New skills and insights gained through the Fellowship are being disseminated throughout the Australian Seafood Industry through the following organisations:

- Agrifood Skills Australia (ASA)
- Australian Seafood Cooperative Research Centre (ASCRC)
- Fisheries Research and Development Corporation (FRDC)
- National Aquaculture Council (NAC)
- Seafood Experience Australia (SEA)
- Seafood Services Australia (SSA).

In addition, international groups, such as the International Association of Fish Inspectors (IAFI) and its networking subgroup, the International Association of Seafood Professionals (IASP), will be utilised to expand the range of information and assistance available for Australian seafood certification specialists, auditors and managers.

# The Australian Context

*Note: All figures used in this section are sourced from ABARE 2008 ('Australian Fisheries Statistics 2007', Canberra, June 2008).*

The Australian Seafood Industry faces the challenge of overcoming the lack of competitive edge for local products. Although the market for seafood is expanding in Australia, it is predicted that Australian seafood producers will continue to face aggressive competition from imports.<sup>3</sup> Furthermore, supermarket chains such as Woolworths and Coles are placing increasing demands on seafood producers to show proof of sustainable production methods. Export market growth is being hindered by increased costs of production and a high Australian dollar. As the domestic and global markets become ever more complex and sophisticated, the competitiveness of Australian seafood businesses will continue to be challenged.

Between 1999–2000 and 2006–2007 the total volume of fisheries production increased by 17,500 tonnes (8 per cent), while the real gross value of production has fallen by \$A0.8 billion (26 per cent).

The increase in production volume is largely the result of growth in the production of Australian sardines. The principal factor behind the fall in production value has been the decline in the value of rock lobster, prawns, abalone and tuna. The combined value of these four species has fallen by \$A0.7 billion (in real terms) over this period. Farmed salmonids from Tasmania have emerged as a key production species in terms of both volume and value, surpassing tuna as Australia's most valuable finfish species group.

Since 2000–2001 the real value of Australian fisheries exports has fallen by \$1.1 billion (42 per cent). The driving factor behind this fall has been the decline in the value of key export species. The combined value of rock lobster, pearls, abalone, tuna and prawns has fallen by \$0.9 billion over this period. Hong Kong has overtaken Japan as Australia's main export destination for fisheries products.

Historically, Australia has been a net importer of fisheries products in volume terms, but a net exporter in value terms. In recent years the gap between the value of Australian fisheries exports and imports has closed. In 2006–2007, the value of Australian fisheries exports (\$1.49 billion) was approximately equal to the value of fisheries imports (\$1.47 billion). In 2006–2007, the total volume of Australian fisheries production fell by 2 per cent to 240,000 tonnes. The gross value of production increased by 2 per cent in nominal terms to \$A2.18 billion, although in real terms it fell by 1 per cent. Western Australia accounted for the largest share of production value (22 per cent), followed by Tasmania (22 per cent) and South Australia (18 per cent). The gross value of aquaculture production rose by 7 per cent in nominal terms to \$A793 million. Aquaculture accounts for approximately one-third of Australia's gross value of fisheries production.

The top five products by volume (tonnes) in 2006–2007 were:

Australian sardines	33,000
Salmonids	25,300
Prawns	20,600
Rock lobster	13,700
Tuna	13,100

<sup>3</sup> Since 2003-04 the real value of Australian fisheries imports has risen by \$153 million (12 per cent), being mostly driven by greater imports of fresh, chilled and frozen prawns and frozen fish fillets (ABARE July 2009, 'Australian fisheries statistics 2008', Canberra)

## The Australian Context

The top five products by value in 2006-2007 were:

Rock lobster	\$A441 million
Salmonids	\$A281 million
Prawns	\$A265 million
Abalone	\$A216 million
Tuna	\$A161 million

In the same year the total value of Australian exports of fisheries products decreased by 3 per cent to \$A1.49 billion. Approximately 80 per cent of export value was derived from edible fishery products such as fish and shellfish. The remainder was comprised of non-edible products such as pearls and fish meal.

The top five products exported by dollar value in 2006-2007 were:

Rock lobster	\$A463 million
Pearls	\$A314 million
Abalone	\$A246 million
Tuna	\$A162 million
Prawns	\$A94 million

The top five export destinations by dollar value in 2006-2007 were:

Hong Kong	\$A642 million
Japan	\$A374 million
United States	\$A151 million
China	\$A60 million
Chinese Taipei	\$A51 million

The value imports of fisheries products increased by 16 per cent in 2006-2007 to \$A1.47 billion. The top five imports by value in were:

Fresh, chilled or frozen prawns	\$A246 million
Canned fish	\$A244 million
Frozen fish fillets	\$A228 million
Pearls	\$A182 million
Canned crustaceans and molluscs	\$A101 million

The top five imports were sourced from:

Thailand	\$A280 million
New Zealand	\$A203 million
China	\$A161 million
Vietnam	\$A155 million
United States	\$A63.2 million

Increases in the value of the Australian dollar have made Australian exports more expensive for overseas consumers and imports more attractive to domestic consumers. If past trends continue, Australia will continue to be a net importer of fisheries products in both volume and value terms.

## The Australian Context

There are three options for the Australian Seafood Industry. First, focus on niche or specialist production for premium pricing. This option is a viable option for specific companies that have certain production or location advantages. However, it is unlikely to provide broad scale or long-term growth. Second, reduce production costs through mechanisation, economies of scale, amalgamations, improved staff training and other innovations. This requires considerable investment and re-capitalisation, an option that is being pursued by larger well-resourced companies. Third, increase quality and subsequent demand for the Australian product, especially customised standards to strengthen customer confidence and improve efficiency to gain a competitive market edge. Such an option requires a whole-of-industry approach, but has significant long-term benefits.

Over the past decade efforts have been made to implement standards for the Australian Seafood Industry. The principal driver has been Seafood Services Australia (SSA)<sup>4</sup>, whose goal is to enhance the profitability, international competitiveness, sustainability and resilience of the industry. SSA priorities include:

- Market access
- Cost of regulatory compliance
- Environmental accreditation
- Strategic alliances
- Cost of production.

SSA<sup>5</sup> has two customised standards developed through the Standards Australia accreditation process:

### **Australian Seafood Standard – Food Safety (1993)**

The Australian Seafood Standard – Food Safety reflects the seafood industry's commitment to providing safe, quality seafood produced in accordance with internationally recognised standards, and meeting the requirements of domestic and international customers and food safety regulators.



### **Australian Fish Names Standard AS SSA 5300-2007 (Australian Standard – July 2007)**

For more than 80 per cent of people buying seafood, the most important factor is that they are getting the species of fish they are paying for. Sellers can give their customers confidence that they are getting what they pay for by joining the SSA Fish Names Brand Scheme.

The scheme allows them to promote their use of correct fish names by displaying the Approved Fish Names logo shown to the left.

A priority for the SSA Board is to develop the systems and capacity for the Australian seafood industry to gain market recognition for its environmental credentials. The Australian Seafood Industry is constrained by the tightest level of environmental regulation and compliance legislation of any country in the world.

<sup>4</sup> SSA was established in 2001 as a joint initiative by the Fisheries Research and Development Corporation (FRDC) and the Australian Seafood Industry.

<sup>5</sup> For more information refer to <http://www.seafood.net.au/standards/>

# The Australian Context

The environmental performance of Australian fisheries is assessed against the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries*. These guidelines are based on international benchmarks in the United Nations Food and Agriculture Organisation (FAO) 'Code of Conduct for Responsible Fishing'.

Aquaculture operations are also subject to a number of stringent State and Local Government fisheries environmental regulations. Exports from both aquaculture and fishing must be assessed under the 'Environmental Protection and Biodiversity Conservation Act' (EPBC).

In addition to demanding seafood produced in an environmentally responsible manner, another factor influencing Australian seafood consumers is the need to be assured that they are getting the seafood they paid for. Substitution of seafood product has shaken consumer confidence in the Australian Seafood Industry. The Australian Fish Names Standard will provide greater confidence.

Accurate labelling and innovative packaging for product freshness add to the attractiveness of the seafood product. An excellent case study is Kinkawooka Mussels.<sup>6</sup> This Port Lincoln based, family business sells the 'pot-ready' value-added Blue Mussels (*Mytilus galloprovincialis*). The style is now becoming the norm and there are now at least three competitors in this particular market.<sup>7</sup>

According to Seafood marketer, John Susman, the Kinkawooka Mussels brand was the quality guarantee.

*"Our brand is our quality guarantee. Every mussel in the pack must be a winner. It must be live, clean shell, no beard, with a soft and sweet meat and have a high meat to shell ratio. A series of protocols have been introduced into the production process from water right through to delivery.*

*Sensory evaluations are taken pre-harvest and twice a week after that right into the market place. We have been able to correlate season and regional variations in flavour and texture of mussels from the nine different growing sites in Boston Bay. This is Marketing 101...no point putting a brand on a product unless it stands for something."*<sup>8</sup>

The Australian Seafood Industry must develop third-party certified product that delivers to both the seller and the consumer premium taste, texture and appearance; maximum sustainability in production and supply; accurate labelling; consumption safety; and convenience in purchasing, storage and handling.

Australian aquaculture has to comply with some of the strictest government regulations and requirements in the world, including food safety, OH&S and environmental management. Compliance costs can be significant and can place the Australian product at a price disadvantage compared to products from countries with few such compliance requirements. A number of farm owners or operators have suggested, however, that third-party certification against national or international standards should allow compliance costs to be reduced.

<sup>6</sup> <http://www.kinkawooka.com.au>

<sup>7</sup> O'Sullivan, D. 'Kinkawooka Shellfish – It's All About The Environment And The Flavour', Austasia Aquaculture, March 2009

<sup>8</sup> *ibid*

# The Australian Context

Demonstrating world-best-practice in aquaculture through third-party certification places Australian product on a higher quality level. It is unlikely, however, that this would translate into higher prices. It is expected that such certification will become a normal part of market requirements and so the costs associated with this will reduce profit margins.

It will be up to industry groups, particularly the NAC, to lobby government at the Federal, State and Council/Shire levels for concessions on compliance fees should third-party certification be demonstrated. This will not be an easy process, as few government agencies would wish to see their income streams reduced.

## SWOT Analysis

Exploring the industry's strengths, weaknesses, opportunities and threats provides an effective means of mapping current seafood industry issues and identifying opportunities for future development.

### Strengths

- SSA work on standards (Seafood, Fish Names, Environmental Management System [EMS], OH&S, Risk Management).
- Individual company and sector initiatives in quality and other certification.
- High level of compliance with environmental management, occupational health and safety and food safety regulations.

### Weaknesses

- Increasingly uncompetitive.
- Poor capacity within businesses to effect and manage change.
- No national representative body for all of industry.

### Opportunities

- SSA's and AMCL's 'Australian Sustainable Seafood' concept.
- Combine certification for quality, sustainability, food safety and correct labelling.
- Increase domestic and international market share.

### Threats

- Slow uptake of initiatives by individuals and groups, especially those initiatives not associated with regulated compliance.
- Increased amount of imported seafoods.
- Requirements by major buyers for certified product.

# Identifying the Skill Deficiencies

Companies and organisations along the entire seafood supply chain can potentially benefit from having identified industry skill and knowledge deficiencies addressed. The potential beneficiaries include:

- Aquaculturists
- Fishers
- Culturists or harvesters of ornamental species
- Processors and value-adders
- Distributors and transporters
- Labellers
- Storage or holding operations
- Wholesalers and retailers
- End users, such as food services, chefs and consumers.

The principal compliance areas of seafood product certification with identified skill and knowledge deficiencies include:

- Food Safety/HACCP
- Traceability
- Supply Chain Assurance
- Environmental Management
- Biosecurity
- Occupational Health and Safety
- Eco-labelling
- Organic Produce
- Social Responsibility Food Quality
- Animal Welfare.

The Fellow examined the National Training Information Service (NTIS) website<sup>9</sup> for available training in these skills, including competency units (CUs) and training packages. A summary of courses is set out in the table below.

## Competency Units and Training Courses Offered in Certain Skills

Skill	Competency Units*	Training Courses
Food Safety	91, over 10 relevant CUs, 4 SFI specific	Several current providers for seafood
Traceability	2, no relevant CUs	NA
Supply/Value Chain Assurance (Chain of Custody)	21/6, 2–3 relevant CUs	None listed
Environmental Management	64, over 10 relevant CUs, 4 SFI specific	Several current providers for seafood

*Continued...*

<sup>9</sup> <http://www.ntis.gov.au/>

# Identifying the Skill Deficiencies

Biosecurity	3, 2 relevant CUs	None listed
Occupational Health and Safety	332, 10–12 SFI specific	Several current providers for seafood
Organic Produce	7, 4 relevant CUs	None listed
Social (Corporate) Responsibility/Accountability	None listed	NA
Food/Product Quality	18/0, one meat CU which can be used for seafood	No current providers for seafood
Animal Welfare	62, 6–7 relevant CUs	None listed

\* SFI = Seafood Industry Training Package

A principal objective of this Fellowship is to enhance skills and knowledge for seafood product certification and assess if there is a business case for a single scheme for the whole-of-seafood production and value chain for use by the Australian aquaculture, fishing, processing, transportation, storage, labelling and sales sectors.

An alternate option for the Australian Seafood Industry is the use of one or more of the international accreditation schemes already in place, eg Marine Stewardship Council (MSC), Global Aquaculture Alliance (GAA), Standard for the International Accreditation of bodies involved in product certification (ISO65), or United Nations Food and Agricultural Organisation (FAO). A number of companies and industry sectors have already achieved this certification, and many others are in the process of applying for such accreditation.

Prior to departure, the Fellow identified a specific set of skill and knowledge deficiencies to be addressed.

## Interpretation and Development of Standards

### Objectives

- Develop a matrix of existing requirements for seafood production in Europe/other markets.
- Analyse major trends and determine likely developments over the next 3–5 years.
- Determine best methods for development of standards/regulations for seafood quality certification by Accreditation Services International (ASI).
- Gain an understanding of the current international, national, industry and company standards/regulations for seafood quality and their applicability to Australian seafood producers and consumers.
- Become skilled in standards/regulations development for an appropriate seafood standard/certification process for the ASI.

### Key Questions

- Which are the most popular (useable, effective) certification standards for seafood? Why? Do these include both wild caught & farmed product? If not, why not?
- Do the preferences for these standards differ between producers, sellers and consumers? And why?

## Identifying the Skill Deficiencies

- Do these schemes include the remainder of the supply chain? Is that necessary?
- What are the major benefits? Higher price? Greater demand? Access to market? Less compliance costs? Other?
- Does the preference differ between producers, sellers and consumers?
- At which level do they work the best? International, national, industry or company?
- Do they need regulatory backup? If not, how to control?
- Which ones are currently mandatory for Aussie product exports?
- Which ones are likely to become mandatory within next 3–5years?
- Are they accredited to EN45011/ISO Guide 65?
- Why do some work and others don't?
- What changes in certification will take place over next 3-5 years?
- What is the best model for standards developments?
- How to maintain independence when a certifying body has people out promoting their 'product/service'?
- Which is best option? Set by government? By industry? Set jointly by industry and government?
- Is there an opportunity for an international 'umbrella' scheme into which all standards can link?
- What other questions should I ask that I haven't asked already?
- Does having a company environmental or sustainable policy only (I understand many large corporations are moving towards this in Europe) have the same impact as being certified? Do consumers differentiate between the two?
- Is the market becoming too inundated with different environmental logos causing consumer confusion?
- Are nationally developed certification programs readily accepted outside of the country of origin?
- How do nationally developed certification programs establish themselves within the international market?
- Has certification reduced or replaced regulatory compliance visits or led to a reduction of compliance costs by government agencies? (We are hoping this will be an outcome for aquaculture/fishing in Australia to encourage companies to become certified)
- Does organic certification actually equate to sustainable resources?
- Is organic certification really appropriate for wild-caught fish? Influences in regards to chemicals they interact with during their lifecycle that cannot be directly controlled by humans.
- Is it likely that there will be an international organic standard developed for seafood in the future?

# Identifying the Skill Deficiencies

## Selection, Development and Implementation of Third-Party Certification Systems

### Objectives

- Meet with selected seafood certification bodies and undertake 'field' work with their systems development and implementation.
- Develop a matrix of existing capabilities, including accreditation to the international standard EN45011/ISO Guide 65.
- Analyse major trends and inspire innovation in the development of third-party certification systems for Australian seafood.
- Become skilled in selecting existing product certification schemes or determining if a new scheme needs to be developed for Australian seafood.
- To learn how third-party certification systems are developed and implemented.
- To learn how new scheme(s) can become accredited to the international standard EN45011/ISO Guide 65.
- To become skilled in the development of linkages between international certification bodies and appropriate Australian seafood entities.

### Key Questions

- Why do these work and others don't?
- Which certifying bodies are recognised as being the best? Why?
- What capabilities do they have for assisting the Australian seafood industry? Matrix?
- What is the best scheme(s) for the Australian seafood industry?
- What needs to be done to have these introduced into Australia?
- How can any new scheme be accredited to the international standard EN45011/ISO Guide 65?
- What links between international bodies and Australian groups can be made?
- What other questions should I ask that I haven't asked already?

## Internal and External Auditing of Companies/Organisations

### Objectives

- Work with selected seafood certification bodies in the third-party auditing of seafood quality of companies or organisations involved with aquaculture, fishing, processing, transportation, storage, labelling and sales.
- Provide advice and assistance to various companies or organisations in establishing and running their internal or pre-certification audit/checks.
- Examine the pros and cons of different systems and establish techniques for determining profitable outcomes for participants.
- Become skilled in internal and external auditing along the production/value chain.
- Inspire innovation in the development of in-house materials for companies or organisations undertaking their own auditing.
- Gain an understanding of the benefits of the certification and learn how to assist industry in maximising their returns from this certification.

# Identifying the Skill Deficiencies

## Key Questions

- Are they best within sector, region or individual company?
- What are the best methods for in-house/internal pre-certification audits?
- What support materials and training services are offered? Which are the best?
- What are the benefits (financial) to companies utilising these systems? Can these be quantified? If so what are they? Do they vary and why?
- What Lead Auditor certifications are most appropriate for the Australian Seafood Industry?
- What other questions should I ask that I haven't asked already?

## Develop Recommendations for Australian Seafood Product Quality Certification

### Objectives

- Work with selected organisations involved in training and staff development in seafood certification at the main levels – company, peak body, sector, regional.
- Complete a SWOT of their approach in relation to usefulness in the Australian context. Learn the most successful method(s) for promoting change within seafood companies.
- Determine the best certification system for an appropriate Australian Seafood standard/certification.
- Make contact with other innovators in seafood certification and marketing and link them to Australian counterparts for the implementation of the standard including a brand, operations manual and logo.
- Develop training and development services for industry in certification and product quality system implementation against the standard.
- Become skilled in the development and implementation of a certification system for Australian seafood.
- Learn the best practice techniques for training and staff development in seafood certification.
- Become skilled in the development of linkages between international lead auditors and appropriate Australian auditors.
- Complete a SWOT on usefulness of approach to the Australian Seafood Industry at different levels – company, peak body, sector, regional.
- Complete an Action Plan on the development and implementation of an appropriate certification system for Australian seafood.

### Key Questions

- What are the best practice techniques for training and staff development in seafood certification?
- Any special methods for facilitating change?
- Why do these work and others don't?
- What other questions should I ask that I haven't asked already?

# The International Experience

As discussed earlier, a skill deficiency is where a demand for labour has not been recognised and training is unavailable through nationally accredited Australian educational institutions. This arises where skills are acquired on-the-job, gleaned from published material or from working and/or study overseas.

The objective of this overseas research program was to enable the Fellow to bring to the Australian Seafood Industry new skills and a comprehensive understanding of the standards development and certification process (including the conduct and management of effective audits) for key compliance or regulatory areas of seafood product quality certification.

The Fellow visited and worked with international and independent seafood product certification bodies in Europe and completed the following steps of the seafood product certification cycle:

- Interpretation and development of quality standards and regulations
- Selection and implement of third-party certification systems
- Internal and external auditing of organisations along the entire production chain
- Implementation of these skills and knowledge.

European and North American retailers are now considering 'green issues' more often when purchasing seafood and other products. A growing majority of their customers are recognising the value of eco-certified products. Highlighting its growing importance, seafood certification was the basis of keynote sessions and papers at several international conferences and workshops in the EU and USA during 2009.

The Fellow chose to visit Ireland and the United Kingdom. Seafood producers, processors and sellers in those countries share a number of characteristics with Australia. A number of certifying bodies, standards owners and auditors, as well as aquaculture and seafood producers, processors and sellers were identified for visits to address identified skill deficiencies. A full list of activities and visits undertaken by the Fellow is provided in Attachment 1.

The main training took place in Ireland with the seafood auditing and certification team of IFQC Ltd, now called Global Trust.<sup>10</sup> Global Trust headquarters is located in Dundalk near Dublin. Training and tuition was provided by six auditors and certifiers.

While the majority of the aquaculture, fisheries and processing facilities are on the west or southern coast of Ireland, a number of freshwater salmon and trout operations are in the south and central region. The Fellow undertook two workplace audits for Salmon Organic Certification (freshwater operations, ie hatchery & nursery). A number of 'ghost' audits were completed by the Fellow.

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<sup>10</sup> For information about Global Trust, see <http://www.gtcert.com>

# The International Experience

## Skill and Knowledge Development Activities

Location	Enterprise	Skills, Knowledge and Insights
Dundalk, Ireland	Global Trust	<p>Training in Accreditation, specifically Principles and Procedures, Irish Sea Fisheries Board (BIM) Aquaculture (Eco Salmon, Eco Mussels, Organic Salmon).</p> <p>Training in accreditation systems for Fisheries (MSC Background and Briefing, Technical Details), MSC Chain of Custody, Other Fisheries Stewardship Standards, Friend of the Sea (FotS), Responsible Fishing, BIM, FAO, International Fish Meal &amp; Fish Oil Organisation (IFFO), Food Service/Retailer Perspectives.</p>
County Carlow, Ireland	Field work	<p>Witnessed a Freshwater Organic Salmon Audit at Salmon Nova</p> <p>Witnessed a Freshwater Organic Salmon Audit at Poulmounty Salmon</p> <p>Lead Auditor was Cormac O'Sullivan</p>
Dundalk, Ireland	Global Trust	<p>Reviewed the various approaches to Auditing Hatcheries and Farms, compared approaches to Processing Plants and those used for the Mussel Program.</p> <p>Review of Training and week's activities</p> <p>Undertook 'Ghost Audits' for trout, salmon &amp; mussels farms, as well as processing operations</p> <p>Completed the British Retailer Consortium (BRC) and Hazard Analysis and Critical Control Point (HACCP) audit examination.</p>
County Dublin, Ireland	Irish Sea Fisheries Board (Bord Iascaigh Mhara)	<p>Undertook discussions with Catherine Morrison (Environment and Quality Executive Officer); Meetings with Vera Heffernan (Fish Quality Officer) and Grainne O'Brien (Environmental Officer) on the BIM certification systems including BIM Fisheries Stewardship Standard, Certified Quality Programs for aquaculture products and Ecopact, the Environmental Code of Practice for Irish Aquaculture Companies and Traders.</p>
County Cork, Ireland	Field work	<p>Visited oyster growing areas and facilities to observe their production methods, specifically quality assurance, and environmental procedures.</p> <p>Undertook some revisions of plant or farm layout.</p>

*Continued...*

# The International Experience

London, United Kingdom	Field work	Visited retail outlets to observe seafood stands, labelling and signage. Discussions with retailers regarding seafood purchasing policies and requirements for certification.
London, United Kingdom	International Social and Environmental Accreditation and Labelling	Discussions on standards development, trends in systems, good governance and verification, training and certification, what works and doesn't, recommendations for Aust & NZ.
London, United Kingdom	Billingsgate Market	Discussions on seafood presentations, food safety, quality, HACCP, participated in Food Inspectors' practical assessment and tour.
Perth, Scotland	World Wildlife Fund for Nature	Discussions on WWF's role in seafood certification – specifically MSC and proposed ASC (Aquaculture Dialogues); Options for certifying fish meal sources; problems for humane control of predators, especially seals, and possible options; status of seafood demand and views of the buying public on seafood environmental performance, food quality and other issues.
London, United Kingdom	Marine Stewardship Council	Moves towards aquaculture certification, discuss work with partners to market sustainable, certified products. Ecolabelling.

The Fellow completed training and practical work in the following international third-party certification systems for seafood:

### General Accreditation

- EN45011/ISO65 Accreditation Criteria
- International Food Quality Certification Ltd (IFQC – now called Global Trust) Application Procedures
- Auditor Selection Criteria
- Auditor Guidance on Conducting Assessments
- Document Control
- Certification Management
- Shadow Auditing Standards
- BIM Standards
- Certified Quality Salmon (CQS)
- ECO
- Organic.

# The International Experience

## Aquaculture Standards

- Global Good Agricultural Practice (GAP) Standards
- Global Aquaculture Alliance (GAA) Standards
- Certificated Quality Aquaculture (CQA) Standards
- Safe Quality Food (SQF) Standards
- Ecopact.

## Fisheries Standards

- MSC Standards, Principles, Criteria and Methodologies
- FAO Responsible Fishing Standards
- MSC Chain of Custody
- BIM Fisheries Stewardship Standard
- FotS Standard
- IFFO Code of Responsible Fishing
- Food Service Retailer perspectives
- Risk assessment methodology
- Future trends.

## Practical Standards Training (FW = Freshwater, SW = Saltwater)

- Certified Quality Salmon (CQS) and ECO (CQS ECO) Programs
- Shadow audits – two FW nurseries (Organic) and two FW farms (2005)
- Ghost audits – checklists completed for Australian operations for using checklists for SW CQS, SW Eco and Packing, SW Organic
- Certified Quality Trout (CQT) Program
- Ghost audits – checklists completed for Australian operations using checklists for FW CQT, FW ECO, FW Organic
- Certified Quality Mussel (CQM) Program
- Ghost audits – checklists completed for Australian operations for ECO and CQM Harvest, Processing
- Certified Quality Oyster (CQO) Program
- Ghost audits – checklist completed for Australian operations for CQO
- British Retail Corporation (BRC) Program
- HACCP.

## Outcomes and Key Findings

The tuition and training gave the Fellow an opportunity to get hands-on experience with a number of species, including rainbow trout, Atlantic salmon, oysters and mussels. Meetings with people from sectors including wild-catch, aquaculture, processing and post-harvest, packing and distribution, and vendors provided a better understanding of the processes and systems required for managing product throughout the food chain. This is a fundamental requirement in undertaking appropriate and effective audits.

## The International Experience

The table below provides a summary of the skill deficiencies that were initially identified by the Fellow and the subsequent outcomes and insights achieved that helped redress those deficiencies.

<b>Skill Deficiency</b>	<b>Outcome</b>
Certification Systems for Quality Management (QM)	Some emphasis on QM is contained in most of the standards examined, including those for wild fisheries and aquaculture; it is quite important in BIM CQS (Ireland) and in ISO 9000 series
Certification Systems for Food Safety/HACCP	The BRC Global Food Standard and its associated food safety and HACCP programs are considered to be the best around the world; the SQF from Canada has some benefits, although the program is mostly limited to North America; the ISO 22000 series contains some good standards
Certification Systems for Traceability	Good coverage in several standards including BIM CQS (Ireland), Global Aquaculture Alliance Best Aquaculture Practice (USA), and Global Good Agricultural Practice (GAP) by Integrated Aquaculture-Agriculture (IAA) Germany
Certification Systems for Supply Chain Assurance (Chain of Custody)	The FAO Responsible Fisheries standard covers this for world's best-practice; also covered by MSC Chain of Custody
Certification Systems for Environmental Management	One of the three pillars of FAO Guidelines on Responsible Fisheries; most standards have environmental focus; MSC particularly strong for wild fisheries, FotS also good; for aquaculture: better ones are Global Aquaculture Alliance (GAA) Best Aquaculture Practice (BAP), Global GAP, ASC (in prep.); see also ISO 14000 series
Certification Systems for Biosecurity	Not discussed specifically, sometimes covered in environmental management requirements in some standards; this may change as issues of translocation and disease prevention become more important on the international scene
Certification Systems for Eco-labelling	Good coverage in BIM CQS (Ireland), likely to be included in other standards once updating occurs
Certification Systems for Organic Produce	Good coverage in BIM CQS (Ireland); covered briefly in several other standards or systems including Soil Association (UK), Naturland (Europe), Bio (France)
Certification Systems for Animal Welfare	Freedom Foods (RSPCA UK) is the system recognised internationally; issue is covered in FotS, GAA BAP, Global GAP, SQF
Linkages with Occupational Health and Safety	Discussed in the context of various risk management systems, including HACCP
Stages of Certification	All four stages discussed in detail – a good model for Australia is the BIM CQS (Ireland) series which includes most issues with specific standards for ECO (high level of environmental focus) and Organic operations

# The International Experience

## Certification

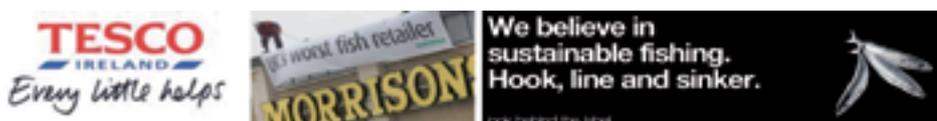
Although product certification adds to the cost of production, it also provides a means for a company to differentiate its product from those of its competitors.

The market is no longer focussed on superior product quality assurance where companies endeavoured to show they were 'best-in-class'. Today the focus is more on reassurance, with companies being required to verify their claims of product quality on issues such as food safety, region or country of origin, traceability, supply chain assurance, environmental management and social justice. Certification, therefore, needs to occur along the entire supply, or production, chain from raw materials to sales and the service of finished goods to the consumer – from net-to-plate or water-to-waiter.

## Domination of Supermarket Chains

Recent surveys in the European Union and the United States show that between 75–90 per cent of all food sales – including seafood – are through supermarkets. Sales through the traditional fishmonger constitute only 8–10 per cent.<sup>11</sup>

Environmental non-government organisations (ENGO) are active in lobbying supermarket chains on the need for their products to be more environmentally friendly. To this end the supermarket chains are getting tougher on their suppliers with the result that many of the supermarket chains have introduced sustainability criteria in their purchasing process. A similar trend is developing in Australia.



## Increasing Importance of Food Services

Food service companies are being pressured by ENGOs to purchase only from sustainable sources. McDonalds has a global seafood purchasing policy (see Attachment 3).



## Third Party Certification

The industry may claim it is providing seafood in an environmentally sustainable manner, but it still has not overcome the perception that its activities are denuding fish stocks and that aquaculture relies on uncontrolled use of dangerous chemicals and hormones.

Claims made by the industry that it practices good environmental management will only have credibility through independent third-party certification against nationally or internationally recognised standards.

<sup>11</sup> MSC PowerPoint presentation 2008.

# The International Experience

## Certification Process

A standards process is complicated and can comprise different organisations and bodies often using different titles. At its most basic, however, a standards process involves three levels:

### 1. Standards Owner/Holder

Establishes quality standards and/or regulations (many of these are ISO65/EN45011 accredited, the international program for product and process certification), often sets conditions for the Certifying Body.

### 2. Accreditation Body

Checks the third-party certification systems of the Certifying Body.

### 3. Certifying (or Auditing) Body

A company or individual auditing the applicant.

The following is an example of standards applied to shellfish safety, specifically biotoxins, in Australia.

*Protocols or criteria:* Products shall not contain levels of natural contaminants that are harmful to human health.

*Indicator of performance:* Natural toxin levels.

*Assessment protocol:* According to legal reference this could be every harvest batch or every week.

*Minimum standard:* Legal limit for Paralytic Shellfish poison is 0.8ug/g or 0.8mg/kg (Maximum Limits).

*Measurement criteria:* Testing by a National Association of Testing Authorities (NATA) approved laboratory.

## Certification Standards for Wild Fisheries

At present there are only two international schemes for certifying wild fisheries:

- Marine Stewardship Council (MSC funded by Unilever and WWF)
- Friend of the Sea (FotS).



Both have been utilised in Australia and New Zealand. Clean Seas Aquaculture (SA) and the Shrimp Trawl Fishery (NT) have FotS accreditation.

In Australia there are three MSC accredited fisheries – the Lakes and Coorong (SA), Australian Mackerel Icefish (WA) and WA Rock lobster (first fishery certified in the world, 2000).

## The International Experience

In New Zealand there is only one fishery certified by the MSC – NZ Hoki. With five undergoing certification – the NZ Albacore Tuna troll fishery, NZ EEZ Hake trawl fishery, the NZ EEZ Ling trawl and longline fishery, the NZ EEZ Southern Blue Whiting pelagic trawl fishery and the NZ Southern Scallop fishery.

The Australian Southern Rocklobster Clean Green Program<sup>12</sup> is another accreditation system run by the industry. The Clean Green program is a world first Rocklobster supply chain management strategy. It is a product certification program integrating pot-to-plate standards for environmental management, food safety and quality, work place safety and animal welfare. The participants are audited by an independent third party Conformity Assessment Body, which is accredited against the ISO/IEC Guide 65:1996 and Joint Accredited Standards Australia & New Zealand (JAS-ANZ) Procedure 15.

The Clean Green program is a strategy built on continuous improvement. The program is owned and maintained by Southern Rocklobster Limited (SRL). SRL is the national peak body owned by licence holders across South Australia, Tasmania and Victoria.

### Certification Standards for Aquaculture

At present there are only organic national standards for certifying aquaculture products in Australia. Although there are no internationally certification schemes currently in use locally, a number of international schemes could be adopted here, including:

- Global Aquaculture Alliance (GAA) BAP
- Global GAP
- Certified Quality Aquaculture Standards (eg. CQS/CQM)
- Friend of the Sea
- Organic Standards
- ISO14000
- Safe Quality Food (SQF)
- BRC Global Food Standard
- Emerging – WWF Standards (establishing the Aquaculture Stewardship Council) and IFFO Feed Materials Standards.

### Labelling

A wide range of Eco-, Organic and Quality labels are in use. Examples include the Label Rouge (France), GAA Best Aquaculture Practices (USA), Marine Stewardship Council (international), Naturland (Germany, organic) and BIM Eco-Quality Assured (Ireland).



<sup>12</sup> <http://www.southernrocklobster.com/cleangreen/main.aspx>

# The International Experience

It is important for the certifiers, industry and environmental groups to build the credibility and consumer recognition for these labels.

The CQS for Irish salmon meant increased marketing opportunities for that product. The certification started just with a quality focus, then it moved through organic and into Eco (highest level). The scope has spread from freshwater operations (hatchery/nursery, some growout) into saltwater growout operations and now into processing. This reflects the 'whole of supply chain' approach most certification systems aim to achieve.

## Best Practice Standards for Australia

Brand awareness is obviously important in creating demand for a certified product or process. As outlined above, the MSC Blue Eco label has good recognition overseas, but not yet in Australia or New Zealand.

A number of certification schemes have consumer product labels (eg GAA, FotS, Certified Quality Auditor CQA and Seafood Trust) that accredited companies can place on their packaging or final product. This is the Business-to-Consumer (B2C) certification model, whereas other schemes involve a Business-to-Business (B2B) certification (eg BRC, Global GAP and SQF) with no product label meant for the final consumer.

The Australian Seafood Industry can utilise or adapt these schemes for its own purposes, or exporters may be required to comply with the requirements set by an importing country or business for product certification.

Another option is for them to establish their own scheme or utilise one that is being utilised by other companies and industries. One project underway aims to encourage Australian seafood producers (wild harvest and aquaculture), processors, distributors, retailers and exporters to utilise the highly visible and nationally recognised 'Australian Made/Australian Grown' branding and promotion platform.



## The International Experience

The 'Australian Made/Australian Grown' branding and promotion platform seeks to:

- Clearly brand, label and promote Australian product
- Effectively differentiate Australian product from imported product in domestic markets
- Build the market profile and brand recognition of Australian products in international markets.

As an introduction to the 'Australian Made/Australian Grown' campaign, the project will refund up to 50 per cent of the cost of new 'Australian Made/Australian Grown' seafood business licensees, to a maximum of \$125 per business.<sup>13</sup> The project will work with Australian Made Campaign Ltd (AMCL) to develop and customise an 'Australian Seafood' representation and logo under the 'Australian Made/Australian Grown' promotion platform.

The 'Australian Seafood' representation will include sector specific compliance criteria, including a minimum of 90 per cent Australian sourced ingredients, use of standard fish names, compliance with environmental benchmarks, such as the Environmental Protection and Biosecurity Act (EPBC Act), the Marine Stewardship Council (MSC) and equivalent Australian aquaculture industry standards.

All businesses previously licensed with the 'Australian Made/Australian Grown' campaign will be eligible to use the 'Australian Seafood' representation without additional cost providing they can meet the sector specific compliance criteria.

The project will build the capacity of the Australian seafood industry to promote its product by publicising, in clear and accessible language, the industry's world leading environmental management practices.

The project will develop and distribute a 'Code of Practice' – the Australian Sustainably Managed Fisheries Code of Practice (ASMF-CoP). The code will publicise the environmental management requirements and guidelines for the assessment of Australian wild capture fisheries under the Australian Government's Environmental Protection and Biodiversity Act (EPBC Act).

The project will assist in protecting access to international markets by providing international seafood buyers and consumers with assurance that Australian product is sourced from sustainably managed fisheries. This market requirement is becoming increasingly important in several key Australian export markets, particularly the European Union and United States.

The 'Building Capacity to Promote Australian Seafood Project' is an initiative of Seafood Services Australia (SSA) and Seafood Experience Australia (SEA). The project is jointly funded by SSA and the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) under its Promoting Australian Produce Program (PAP).

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<sup>13</sup> Details of the requirements of AMAG licensees (the 'AMAG Code of Practice' and AMAG 'Users Guide') and cost schedule for becoming a licensee are available at <http://www.australianmade.com.au/australiangrown>.

# The International Experience

## Case Study: Marine Stewardship Standard (MSC)

As at November 2008, the MSC had certified seafood products in the following markets:<sup>14</sup>

UK	300
Germany	320 (approx)
North America	300 (approx)
Japan	140.

The MSC also claim that they had commitments from a significant number of major retailers who intended to move to selling only environmental certified products.

## Benefits of Certification

The principal motivation for companies to adopt a certification is to build trust with its customers. In some countries, compliance is a very important requirement for certification (although often the companies don't want to be forced to do it, they prefer voluntary programs).

Market access is also an increasingly important driver, especially as a number of ENGOs are lobbying wholesalers and supermarkets to request only sustainably sourced product. The knowledge of the company's process also gives it an edge, and opens the opportunity for management to look for cost efficiencies within the company. Likewise, the quality system can result in farm improvements, such as risk management, identification of lost or inefficient production and so on.

Some companies see that certification allows them to undertake additional promotion of their products, whilst others (usually organic producers) utilise certification to obtain better price for their products (see below).

Certification doesn't mean problems won't happen; rather the certified company can expect fewer problems and also have the methods in place to quickly identify causes of the problems and ways to overcome them.

## Price Impact of Certification

For most certification systems there is no significant increase in price for the certified product at the producer level, however, a higher price may be occasionally achieved at the wholesaler level for the certified product.

The exception is for organic certified seafoods, such as Atlantic Salmon in Scotland or Ireland, that have been reported to obtain a price premium of up to 50 per cent two or three years ago. However, a check through retailers in the UK and at the Billingsgate Fish Market showed that now it is closer to 20–25 per cent higher than non-organic produce.

Where the certification matches the requirements for compliance with government legislation or guidelines, there may be opportunities for reduced compliance costs.

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<sup>14</sup> For a more in-depth breakdown of these figures see 'Fellowships to tackle industry skills shortage' published in *Austasia Aquaculture Issue: Vol 23.1 March '09*, pages 58–59. This article is shown in Attachment 2 of this report.

# The International Experience

## Mixing and Matching Certification Systems

Multiple seafood certification schemes have the potential to cause confusion, particularly with the consumer. Grimur Valdimarsson (Director, FAO Fishery Industries Division, Italy), advised the Fellow of work being undertaken to minimise such risks:

*“These issues of certification are of great interest of course and many are of the view that we need a ‘minimum environmental standard’ against which to certify fisheries (seafood). We are actually in the first stages of planning a fisheries certification workshop with the OECD this coming spring.*

*As for us in FAO we have developed ‘minimum substantive criteria’ for ecolabels that will be presented at next meeting of COFI in March.”<sup>15</sup>*

The meeting referred to by Valdimarsson was held subsequently at The Hague, Netherlands April 2009.<sup>16</sup>

Australian aquaculture companies will need to examine carefully the various certification options to determine the most appropriate for their industry. Until recently aquaculture certification was at two levels: pre-harvest (eg certification systems such as Global GAP, GAA) and post-harvest (eg BRC, SQF, GAA).

Some certification schemes require all links in the chain of custody to be certified. Thus, for a farm to be certified, it needs to have its suppliers certified, as well as the processors, transport companies and retailers. Companies need to – or choose to – obtain certification to a number of overlapping standards.

Global Trust CEO, Peter Marshall, believes this situation has its roots in confusion about terminology used by environmental non-government organisations.

*“Take, for example, the word ‘sustainability’. Some people say this has been ‘hijacked’ by the various ENGOs to simply refer to the environmental. Thus, with regard to sustainability, aquaculture is seen to be a round peg for a square hole. For some ENGOs, a seal dying in a badly set net is more important to prevent than ensuring the jobs for three coastal families. However, sustainability is an amalgam of three different criteria: social, environmental or economic. Certification is allowing companies to prove their worth on all three of these criteria.”<sup>17</sup>*

Many aquaculture companies are now working hard to better assess their inputs and outputs. The International Fishmeal and Fishoil Organisation (FFO) feed manufacturing standard, currently under development, will assist companies in proving to their markets that they have sourced feeds from manufacturers who purchased fishoil and fishmeal from certified fishers.

<sup>15</sup> Email correspondence with the Fellow, 17 December 2008.

<sup>16</sup> The proceedings ‘Round Table on Eco-labelling and Certification in the Fisheries Sector’ can be found at [http://www.oecd.org/document/42/0,3343,en\\_2649\\_33901\\_42026282\\_1\\_1\\_1\\_37401,00.html](http://www.oecd.org/document/42/0,3343,en_2649_33901_42026282_1_1_1_37401,00.html)

<sup>17</sup> ‘Market orientated certification for aquaculture in Australia and New Zealand’ *Austasia Aquaculture Issue: Vol 23.3* September ‘09, p 38-44.

# The International Experience

## **Certifying the Certifiers**

The International Social and Environmental Accreditation and Labelling Alliance (ISEAL) have recognised that, as various standards covering different sectors are essentially the same, a credible standards settling process is required. ISEAL concluded that it is necessary to have independent monitoring and evaluation systems embedded into standards. Compliance with ISEAL is an assurance that appropriate processes were adhered to in developing a particular standard.

The activities of the Standards Owners are overseen by a Governing Board. Technical Advisory Board, Councils or Committees (TABs/TACs) and the Review Board allow the Standards Owner to bring technical expertise and stakeholder involvement to the development and upkeep of a standard. Some Standard owners (ie MSC, FotS) also accredit organisations such as Certification Bodies (CB) in providing conformity assessment services related to their standards. These accreditation bodies therefore assess the compliance of a CB in the requirements of the certification program in order for the CB to offer the certification program as a service.

Some Standards Owners such as ISO do not directly govern the accreditation of CBs to their standards. These are undertaken by other accreditation bodies such as JAS-ANZ in Australia and New Zealand. Therefore, for standards such as ISO 14001:2004 there are both accredited and non-accredited CBs that offer conformance assessment services for these standards.

# Knowledge Transfer: Applying the Outcomes

Insights gained through the Fellowship are being shared with participants in the Australian Seafood Industry through the key industry and government organisations including Agrifoods Skills Australia, the Australian Seafood Cooperative Research Centre, the Fisheries Research and Development Corporation, the National Aquaculture Council, the Sydney Fish Market and other major seafood outlets, Seafood Experience Australia, Seafood Services Australia (with Australian Made Scheme Ltd), and numerous commercial certifying, auditing and assessing companies.

The Fellow is undertaking a range of activities to share the insights and new skill sets generated by this Fellowship.

Knowledge transfer initiatives to date have included:

- A feature article in the September 2009 edition of the industry's premier trade periodical, 'Austasia Aquaculture'.<sup>18</sup> This magazine has a readership in excess of 2,500 individuals and companies across industry, government departments, research institutions and other stakeholder groups.<sup>19</sup>
- A presentation to industry representatives titled *Product Certification – is it the 'third tax' or a great way to differentiate your products from your competitors?* This outlines future requirements for environmental certification for primary industries and ramifications for international and domestic markets. The presentation is being delivered to industry and producer groups across Australia throughout 2009 and 2010 as well as to more than 15 training organisations.<sup>20</sup>

The Fellow will also be chairing a feature session on 'Seafood Certification & Eco-labelling' at the Australasian Aquaculture 2010 International Conference and Trade Show (AA10)<sup>21</sup> in Hobart, Tasmania from the 23–26 May 2010. A number of international guest speakers as well as several Australian specialists will provide presentations on seafood and other primary product certification. Attendance figures for each of the past three biannual conferences have been over 2,000.

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<sup>18</sup> 'Market-orientated certification for aquaculture in Australian and New Zealand', *Austasia Aquaculture*, September 2009, p 38-44.

<sup>19</sup> <http://www.australian-aquacultureportal.com>

<sup>20</sup> A copy of the presentation can be seen in Attachment 4

<sup>21</sup> <http://www.australian-aquacultureportal.com>

# Recommendations

Like most food groups, the market for seafood is changing rapidly. With the emergence of an increasingly global food market and high profile food scares, it is vitally important for vendors to clearly demonstrate to seafood buyers and consumers that the quality and safety of their seafood products are right, the first time and every time.

Today's consumers are affluent and well informed. They demand food that is safe and value for money. In many instances, price is no longer the overriding factor when making purchases. Consumers are looking for product that can be clearly differentiated from others in terms of quality and method of production. Retail chains, food service companies and end consumers all want documented proof that product is of a high and consistent quality and produced in a sustainable manner.

There is also an increasing amount of government legislation and regulations contained within a plethora of compliance standards. The European Union and Britain are recognised as the leaders in seafood quality standards development and certification. Some of these standards are set by governments and others are industry-driven. The objective of such schemes is to have best practices adopted at every stage in the food supply chain. Furthermore, there is a variety of other quality and production standards that European producers can choose from, including recognised organic fish standards (eg Label Rouge in France) and the RSPCA (UK) farmed fish welfare standards operated by Freedom Food.

Independent certification is an emerging method of alleviating purchaser and consumer concerns. Seafood suppliers now require recognisable standards to benchmark their practices and products against when entering new markets. This certification needs to take place throughout the supply chain, from 'water to plate'.

In order to maintain international competitiveness and continued access to valuable international markets third-party Accredited Certification is becoming critical for Australian seafood producers and vendors.

While some companies (eg Tassal, Huon Aquaculture Company, Sydney Fish Market) and sector groups (Southern Rock Lobsters) with excellent certification systems for product quality, very few Australian seafood producers understand and have sought out accredited certification standards for their product. Unless this situation is rectified the industry will continue to lose both export and domestic markets to certified, badged and well-marketed product from overseas.

Appropriate certification of seafood products against a number of domestic and international standards or programs provides an important opportunity for Australian producers to compete successfully against cheaper imports or inferior quality local produce.

## Government

**Recommendation:** Aquaculture compliance officers from all levels attend the Certification and Eco-labelling session to be held in Hobart in May 2010.

**Recommendation:** Consideration be given by all levels of government to reducing the costs of compliance for companies third-party certified against an appropriate standard.

**Recommendation:** Provide input into the discussions on the development of an Australian standard or the adoption of international programs.

# Recommendations

## Industry

**Recommendation:** Operate a joint Australia and New Zealand industry approach to seafood certification.<sup>22</sup>

**Recommendation:** Undertake an industry-wide survey in Australia and New Zealand on attitudes to certification. The objective of such a survey would be to confirm the need for the scheme and provide an empirical basis for certification scoping studies. The results of a Trans-Tasman industry survey would also assist in determining whether to have different certification schemes for aquaculture, wild fishing, processing, transport and sales, or to have one scheme that encompasses them all.

**Recommendation:** Form a joint Australia and New Zealand Working Group to establish a formally constituted certification authority or, alternatively, determine if appropriate conformity assessment bodies already exist. This body should become an associate member of ISEAL and make a commitment to demonstrate full compliance within three years from the date of membership approval.

**Recommendation:** Undertake a detailed assessment of the benefits and costs of operating either a joint Australia-New Zealand certification scheme, a wider regional certification scheme, or adapting current practices to meet the requirements of an existing international certification scheme/s.

If Australia decided to go it alone:

**Recommendation:** Undertake a rigorous cost/benefit analysis of the program being developed currently by Seafood Services Australia (SSA), Seafood Experience Australia (SEA) and Australian Made/Australian Grown Campaign (AMAGC) 'Australian Made/Australian Grown' brand and logo to publicise the 'world leading' environmental management practices of the Australian Seafood Industry. The brand and logo would be used by the Australian seafood producers (wild harvest and aquaculture), processors, distributors, retailers and exporters.

## Education and Training

**Recommendation:** Copies of this report including the accompanying presentation on product certification (Attachment 4) and Austasia Aquaculture article (Attachment 2) be distributed to Registered Training Organisations undertaking training in seafood as well as other seafood training networks. This reference material can then be used to inform their trainers and students of the value and issues associated with seafood certification.

**Recommendation:** Undertake a 'mapping' project to determine the potential for recognition of prior learning (RPL) for industry participants who have completed relevant competency units within the Seafood Industry Training Package (part of the Australian Qualifications Framework) with the competency-based training in auditing certified by the Registrar Accreditation Board Quality Society of Australasia (RABQSA) International.<sup>23</sup>

<sup>22</sup> The Joint Accreditation System of Australia and New Zealand (JAS-ANZ) is the government appointed accreditation body for Australia and New Zealand. It is responsible for providing accreditation of conformity assessment bodies (CABs) in the fields of certification and inspection. Accreditation by JAS-ANZ demonstrates the competence and independence of these CABs.

<sup>23</sup> RABQSA International (<http://www.rabqsa.com>) design, develop, and deliver personnel and training certification services relevant to industry. Their Training Provider And Examiner Certification Scheme (TPECS) is competency-based training certification and is designed to reflect contemporary and innovative learning and assessment (examination) practices, industry expectations and, above all, demonstrate that applicants achieve the level of knowledge competence required for RABQSA personnel certification. An applicant for an RABQSA competency-based personnel certification scheme must be deemed competent in the knowledge, personal attributes and skills required for that scheme.

# Recommendations

## ISS Institute

**Recommendation:** Skill and knowledge deficiencies remain throughout the Australian seafood industry regarding different certification systems operating in markets in North America, Europe, the Middle East and Asia. These skill and knowledge deficiencies should be addressed by ISS Institute through the provision of further Fellowship opportunities in partnership with Australian seafood industry associations.

# Attachments

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## Attachments

### Attachment 1: Skill and Knowledge Development, 30 March – 21 April 2009

Date	Location	Skills, Knowledge and Insights
30 March	Ireland, Dundalk	Accreditation – Principles and Procedures, BIM Aquaculture (ECO Salmon, ECO Mussels, Organic Salmon)
31 March	Ireland, Dundalk	Fisheries (MSC Background and Briefing, Technical Details), MSC Chain of Custody, other Fisheries Stewardship Standards, FotS, Responsible Fishing, BIM, FAO, IFFO, Food Service/Retailer Perspectives
1 April	Ireland, County Carlow	Freshwater Organic Salmon Audit
2 April	Ireland, County Carlow	Freshwater Organic Salmon Audit – Poulmounty Anthony Ralph
3 April	Ireland, Dundalk	Review of Audits, Processing, Mussel Program, Review of Training and Weeks Activities
4–5 April		Ghost Audits for trout, salmon and mussel farms, also processors
6 April		BRC HACCP audit, review of Ghost Audits
7 April		Ghost audits for trout, salmon and mussel farms, also processors
8 April	Ireland, County Dublin	Discussions with Catherine Morrison; Meetings with Vera Heffernan, Fish Quality Officer and Grainne O'Brien Environmental Officer
9–13 April	Ireland, County Cork	Visit to growing areas and facilities
14 April	UK, London	Contact with UK retailers to discuss seafood purchasing polices and requirements for certification.
15–17 April	UK, London	<p>Visit to various retail outlets to observe seafood stands, check labelling and various shop signs, Phone calls and emails to various UK retailers to discuss their seafood purchasing polices and requirements for certification.</p> <p>Discussions on standards development, trends in systems, good governance and verification, training and certification, recommendations for Australia and NZ.</p> <p>Meetings dealing with seafood presentation, food safety, quality, HACCP. Participatation in Food Inspectors' practical assessment and tour</p>
18–20 April	Scotland, Perth	Discussions on WWF's role in seafood certification, specifically MSC and proposed ASC (Aquaculture Dialogues); Options for certifying fish meal sources; problems for humane control of predators, especially seals, and possible options; status of seafood demand and views of the buying public on seafood environmental performance, food quality and other issues.
21 April	UK, London	Meeting regarding aquaculture certification, discuss work with partners to market sustainable certified products. Ecolabelling. Contact with UK retailers to discuss seafood purchasing polices and certification requirements.

# Attachments

## Attachment 2: Article on Fellowship in 'Austasia Aquaculture', March 2009

NEWS

# Fellowships to tackle industry skills shortage

In November, 2008, four aquaculture industry members were awarded prestigious fellowships for overseas study tours by the International Specialised Skills (ISS) Institute, based in Camberwell, Victoria. The fellowships are designed to fill skills deficiencies which have been identified by industry and for which training is unavailable through nationally accredited Australian educational institutions.

The awardees of the ISS Institute / Department of Education, Employment and Workplace Relations (DEEWR) Trades Fellowships were:

- **Andrew de Deztery** (Omega Fish Products) – Aquaponics and waste management
- **Gavin Partridge** (Challenger TAFE) – Spawning and rearing yellowfin tuna
- **David 'Dos' O'Sullivan** (Dosaqua PL) – International seafood product certification

In addition Mark Oliver (Sunshine Coast Institute of TAFE, Qld) was awarded a Pratt Foundation / ISS Institute Overseas Fellowship to travel to the South East Asia and Micronesia to study the recent advances in highly-priced marine fish hatchery techniques.

"Commercial hatchery production of highly priced marine fish species such as Coral Trout is a reality in some South East Asian countries and Australia is poised to join the list of countries producing these species," Mark says. "There are many talented technicians across the South East Asian region who are fine tuning their hatchery skills to maximise survival of these species that are traditionally very difficult to culture and I feel extremely humbled that I can view first hand their techniques and procedures."

The ISS Institute in collaboration with the Department of Education, Employment and Workplace Relations and the Pratt Foundation provides funding and supports the skills study fellowships.

The ISS Institute is an independent, not-for-profit organization, which has a record of nearly twenty years of working with Australian industry and commerce to assist individuals gain best-in-the-world skills and experience in traditional and leading-edge technology, design, innovation and management. The Institute has worked extensively with Government and non-Government organisations, firms, industry bodies, professional associations

and education and training institutions.

The Patron in Chief is Sir James Gobbo AC, CVO.

The ISS Institute Board of Management is Chaired by Noel Waite AO. The Board comprises Franco Fiorentini, John Iacovangelo, Lady Primrose Potter AC and David Wittner.

Through its CEO, Carolynne Bourne AM, the ISS Institute identifies and researches skill deficiencies and then meets the deficiency needs through its Overseas Skill Acquisition Plan (Fellowship Program), its education and training activities, professional development events and consultancy services.

Under the Overseas Skill Acquisition Plan (Fellowship Program) Australians travel overseas or international experts travel to Australia. Participants then pass on what they have learnt through reports, education and training activities such as workshops, conferences, lectures, forums, seminars and events, therein ensuring that for each Fellowship undertaken many benefit.

The ISS Institute can be contacted on (03) 9882 0055. E: issi.ceo@pacific.net.au W: www.issinstitute.org.au



## Seafood Certification

Das will be working in Ireland, Scotland and other parts of Europe to undertake an assessment of the international seafood product certification systems. His aim is to develop systems for world's best sustainable production in Australia.

"With input from the National Aquaculture Council, Seafood CRC, Seafood Services Australia and Seafood Experience Australia, we identified skills and knowledge gaps in key compliance or regulatory areas of seafood product certification," he says. "These include Food Safety, Traceability, Supply Chain Assurance (Chain of Custody), Environmental Management and Biosecurity.

He will work with certifying bodies, regulatory agencies, seafood marketing groups and other specialists in the following four steps of the seafood product certification cycle:

- Interpret or develop standards and/or regulations.
- Select, develop and implement Third-party Certification Systems.
- Complete internal and external auditing of companies/organisations along the whole seafood production/value chain.
- Implement these skills and knowledge with the development of an appropriate standard, brand and logo.

Das also plans to become a Certified Lead Auditor for a number of international third-party certification systems for seafood. "If time permits I will also be examining systems for Eco-labelling, Organic Produce and Animal Welfare."

Das can be contacted on 0418 130-595 or [das@dasoqua.com.au](mailto:das@dasoqua.com.au)

## Yellowfin Spawning

Govin is planning to travel to Panama and Miami, where he will learn techniques for rearing Yellowfin Tuna (*Thunnus albacares*) larvae.

Yellowfin are the fastest growing of all of the tunas. Being able to culture tuna larvae in a controlled hatchery environment will allow the aquaculture industry to expand rapidly, beyond the constraints currently imposed through quotas.

"The Inter-American Tropical Tuna Commission's laboratory in Panama have a very successful broodstock program for Yellowfin Tuna and obtain fertilised eggs year-round," Govin says. "This provides an excellent opportunity to learn the techniques required to produce commercial quantities of juvenile tuna which can then be stocked into growout cages."

Govin can be contacted on (08) 9239-8032 or [govin.parridge@challengertafe.wa.edu.au](mailto:govin.parridge@challengertafe.wa.edu.au)



A 40 day yellowfin tuna juvenile.  
Photo by Govin Parridge.



## Zero Waste

Andrew, will be travelling to the USA and Canada to help fast track the commercial development of aquaponics and further industry integrated practices in the Australian development.

"Although not a new sector of global aquaculture development, the concept of aquaponics and its commercialisation has only recently come about," Andrew says. "Food shortages, sustainable industry, zero waste, minimal carbon footprint, these are all words we hear regularly and aquaponics can deliver on all fronts. What is required is that we take it to another level so that it becomes a stand alone enterprise with all the benefits for the man on the land."

Some of Andrew's studies abroad will include value adding down stream with the inclusion of other integrated farming practices, value adding with organic status for aquaculture products and true passive energy usage in the whole mix.

"It's a very broad picture," Andrew comments "but if we can pull this off it's one of those idealistic developments of this century that could keep families on the land and still provide high quality products without compromising on their inputs."

Andrew can be contacted on 0412 477 036 or [manager@aquaculture-advantage.com](mailto:manager@aquaculture-advantage.com)

## Attachments

### Attachment 3: Article on market-oriented certification in 'Austasia Aquaculture', Spring 2009



## Market-orientated certification for aquaculture in Australia and New Zealand

*Demand in Europe for seafood products certified as environmentally friendly or sustainable is increasing so much that third party certification is mandatory for most supply chains into supermarkets. After a recent study tour Dos O'Sullivan reports that a similar situation is likely to develop here in Australia and New Zealand*

As part of the ISS Institute / DEEWR (Dept of Education, Employment and Workplace Relations) Trades Fellowship, sponsored by the International Specialised Skills Institute Overseas Fellowship Program ([www.issinstitute.org.au](http://www.issinstitute.org.au)), I undertook 5 weeks of training and study in Ireland, Scotland and England.

It is no secret that European and North American retailers are now considering 'green issues' more often when purchasing seafood and other products. The reason is not rocket science – a growing

majority of their customers are recognising the value of eco-certified products. Highlighting its growing importance, seafood certification was the basis of key note sessions and papers at recent international conferences and workshops in the EU and USA (a session is also planned for AA10, to be held in Hobart May 2010).

The environmental branding of seafood product has been underway for some time in Australia and New Zealand; most people will be familiar with 'Turtle

Friendly' or 'Dolphin-friendly' Tuna. These claim that no turtles or dolphins are injured or killed during the Tuna catching process.

But such certification is now moving mainstream with a plethora of programs using third-party certifiers for a wide range of foods and beverages, some with big advertising budgets. For example, both McCafe coffee and Lipton's tea are certified by the Rainforest Alliance ([www.rainforest-alliance.org/](http://www.rainforest-alliance.org/)). Savvy consumers will know that their McCafe

## Attachments

or Lipton drinks have been produced in a way that conserves biodiversity and ensures sustainable livelihoods for the workers and land holders involved.

Peter Marshall, Chief Executive of Global Trust Ltd, one of the world's leading seafood certification business (see *Box Inset*), says that there has been a major shift in the market focus. "The market is no longer focussed on superior product quality assurance," he explains. "It used to be companies striving to show they were the so-called 'best in class'. Now the focus is firmly on reassurance. Companies are defending their claims on a wide scope of issues including animal welfare, EMP (environmental management planning), social impacts and effluent management, amongst others. This needs to occur right along the production chain from raw materials to finished goods (the so called 'net to plate' or 'water to water' schemes we have in Australia)."

Most certifiers will acknowledge this emphasis on proving sustainability has not been primarily driven by the end consumer; it's been the lobbying work of environmental non-government organisations (ENGOS; eg. WWF – World Wildlife Fund for Nature) that's been the key. "There is no doubt there is a rapidly increasing ENGO focus on influencing consumer choices," explains Peter. "For example, Greenpeace had a campaign entitled 'If you think you are sustainable – Prove it' which forced companies from a range of industries to actually document their environmental sustainability systems."

The ENGOS have mostly concentrated



on the larger supermarket chains where they can get more "bang for their buck". In the EU and the USA recent surveys shown that between 75-90% of all food sales (including seafoods) are through supermarkets; seafood sales through traditional fishmongers are just 8-10%. To this end the supermarkets are getting tougher with their demands – many of the leading brands have introduced sustainability criteria in their purchasing process.

Any producer can make the claim that they're doing things the right way. Proof comes however from independent third-party certification against nationally or internationally recognised standards.

"There has also been a move from simply certifying for products or processes to certifying for provenance (regional) as

well as for social acceptability. The certification program now needs to address all four components."

Peter says that certification can also help a company's bottom line. "Any good quality management system should result in direct benefits to the company in cost efficiency. For example, our experience with aquaculture farms in Europe and North America has shown that there are real cost-saving and value-making opportunities from adopting formal standards and systems. These include reduced complaints through improved product conformity and consistency, improved identification and correction of poor quality, reduced down time through preventative maintenance planning, improved customer relations, increased market share,

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## FEATURE



reduced cost of waste disposal, improved fuel efficiency, reduced fuel wastage, reduction in packaging costs and new income streams through turning wastes into valuable by-products such as compost."

### What are Standards?

The International Organisation for Standardisation's (ISO) definition for a Standard is that: 'A prescribed set of rules, conditions, or requirements concerning definitions of terms; classification of components; specification of materials, performance or operations; delineation of procedures; or measurement of quantity and quality in describing materials, products, systems, services or practices.'

Global Trust gives a simpler definition: 'It is a requirement that is determined by a consensus of opinion of users (stakeholders) that prescribes the accepted best criteria for a product, process, test or procedure.'

The standards process can be very

complicated, with a spider's web of different organisations and bodies, often using different terms or nomenclature, however, at its simplest it involves three levels:

1. The Standards Owner / Holder establishes quality standards and/or regulations (many of these are ISO65/EN45011 accredited, the international program for product and process certification).
2. The Accreditation Body sets and polices the requirements for third-party certification systems, including certifying of the auditors.
3. The Certifying or Auditing Company (or individuals) undertake the audits.

The legitimacy of any standards initiative is determined in part by the suitability of the process through which these standards are developed, adopted and implemented. For this purpose the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance's Code of Good Practice specifies general requirements for the

preparation, adoption and revision of standards that address social and environmental practices. The ISEAL Alliance provides technical and peer support to new and emerging standards systems to ensure they build on previous experience and best practice.

When constructing or developing a standard, the process can be broken down into six or seven basic components (examples are provided for a standard on shellfish food safety):

- Principle or objective – To deliver a safe product to the consumer.
- Protocols or criteria – Products shall not contain levels of natural contaminants that are harmful to human health (can be according to legal reference).
- Indicator of performance – Natural toxin levels.
- Assessment frequency – Every harvest batch? Every week? (according to legal reference).
- Minimum standard – e.g. Legal limit is 0.6ug/g (MRL).
- Measurement criteria or Means of Verification – Testing by an ANTA approved or laboratory employing an accredited method.
- Approval – Accredited method and/or government appointed reference laboratory & method.

At present there are only two international schemes for certifying wild fisheries – Marine Stewardship Council (originated by Unilever and WWF) and Friend of the Sea (FoS). Both are in use in Australia and New Zealand – Clean Seas Aquaculture has FoS, while NZ Hoki, SA Lakes & Coorong Fishery, WA Rock Lobster all have MSC certification (several other fisheries are under assessment). Both schemes refer to the 1995 UN FAO Code of Conduct for Responsible Fisheries as a cornerstone reference.

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According to Global Trust's Dave Garforth, there have also been a number of alternative methods developed to assess a fisheries' or state's ability to comply with the FAO Code, e.g. Rapfish. "Whilst these methods do not currently form accredited standards, they may be of value to industry for internal assessment," he explains. "Steering out of these and similar scoring systems against the FAO Code, it is likely that new fisheries standards will evolve as credible alternatives to the existing certification programs on the marketplace. There are also a number of certification programs that focus on responsible practice. These include the Sealish Responsible Fishing Scheme, IFFO Responsible Sourcing Standard and Irish Seafood Stewardship Program (in development)."

On the other hand the market has been inundated with aquaculture certification programs:

- Global Aquaculture Alliance (GAA) Best Aquaculture Practice
- Global GAP
- Certified Quality Aquaculture Standards (eg. CQSA/CQM/CQT)
- Friend of the Sea
- Organic Standards
- ISO14000
- Safe Quality Food (SQF)
- BRC Global Food Standard

There are also some emerging programs such as the WWF Standards which are currently establishing the Aquaculture Stewardship Council.

The WWF published their report *Benchmarking Study: Certification Programmes for Aquaculture – Environmental Impacts, Social Issues and Animal Welfare* in 2007 saying: "In response to the growing public awareness of the negative impacts of modern aquaculture development, an increasing number of market-oriented certification schemes for aquaculture products are being developed and established. The basic concept behind such product labelling schemes is to provide economic incentives to producers and the industry to adopt more sustainable production practices while safeguarding or

enhancing access to consumer markets. The programmes also are in response to the fact that many of the main importing nations' retail markets are demanding more sustainably produced seafood."

Global Trust also undertakes benchmarking studies on standards. According to this work, many standards are saying the same thing with around 80% commonality with particular focus in different areas depending on origin and the desired key communication points in each case. For example, the MSC is interested in the environment and social justice; it is not concerned about food safety which is the primary focus of the BRC Global Food Standard."

Peter explains that industry will choose which standard best suits their needs going forward. This depends on activity, supply chain position and existing market position. Companies supplying global retailing giants may have little choice as more and more retailer organisations are requesting suppliers to become certified to specific standard programs. In other markets, there may be no specificity. Alternatively, smaller high end suppliers may seek to use certification to differentiate products and services. Organic certification is an example of this.

A range of parameters generally included in standards and certification programs include:

- Product or process differentiation
- Food safety
- Quality management (sometimes claiming the quality of aquaculture products is superior to that of wild-caught fish)
- Organic or natural (additive or residue free, low level inputs)
- Welfare for target animal as well as surrounding species
- Chemical free
- Eco-label and responsible procurement policies
- Provenance (national or regional) traceability
- Social acceptability (workforce, local inhabitants, coastal heritage)
- Environmental – environmental impact assessment, biodiversity, ben-

thic assessment, effluent discharge, waste reduction/recycling, chemical containment, emergency response, prevention of escapes, feed sustainability, energy management.

The key to being an effective standard is having criteria with indicators of performance that are measurable and quantifiable. Peter says this critical so that the certified company can translate their achievements into a communication strategy with specific claims. For example, using the shellfish example above: "Our oysters are certified safe to eat," (i.e. they have natural algal toxins below the MRL of 0.6mg/g). Obviously for food safety, other indicators such as *E. coli* (indicators of sewage pollution) would also be used.

Perhaps one of the most long established schemes is that for Certified Quality Salmon owned by the Bord Iascaigh Mhara or BIM (Irish Sea Fisheries Board). This originated from a Code of Practice for Irish salmon farmers which was first developed in 1989 and revised in 1994. In 1997, this had been translated and re-written through technical committee consultation as an accredited Standard.

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## Global Trust Certification Ltd

Global Trust ([www.GTcert.com](http://www.GTcert.com)) is an ISO65/EN45011 Seafood Specialist Certification body offering Certification Services internationally for a range of Standards including the BRC Global Standards, Marine Stewardship Standards (MSC), Eco-Label Standards, Organic Standards and Responsible Fishing Standards, Illegal Unreported and Unregulated (IUU) Fishing and Traceability Standards.

### Global Trust offers ISO Certification Services for:

- Food and Agriculture Products
- Fisheries and Aquaculture Products
- Eco-Declaration and Verifications
- Carbon Impact and Off-Set Verifications
- Forestry Products
- Consumer Goods
- Corporate Social Responsibility
- Chain of Custody and Traceability

Global Trust also operates a number of private and national Quality Programme Initiatives as well as offering standards development services to Standards Bodies.

The program continues to evolve and now includes:

- Freshwater Standard (mostly for hatcheries and nurseries)
- Saltwater Standard (growout operations)
- Packing Standard
- Cold Smoked Salmon Standard
- Organic Standard
- Eco-Standard.

Similar schemes are also offered for Trout, Mussels and Oysters. Major components include:

- Traceability from hatchery to market, fish welfare, fish health, size selection and maintenance, bio-security, husbandry practices, environmental compliance, staff competence and training
- Fish processing, hygiene, HACCP,

product specification, systems approach to quality.

- Environmental aspects, particularly site selection and management, feed management and nutrient impact reduction
- Nature and biodiversity, including cultural heritage
- Waste management and reduction, including recycling, re-use, benthic and effluent management and impact reduction
- Systems integrity, prevention of escapes, prevention of chemical spills, contingency planning
- Resource management (raw materials in feeds) and conservation, including energy and water.

The schemes are also being used in Iceland, Canada, USA, UK, Holland, France and activities in operation in many other countries through benchmark projects.

### What are the benefits?

Certification is a cost to the business. The candidate company has to pay for the auditor to observe and report on how they meet certain requirements. The fees also contribute to the overall administration and maintenance of the accredited standards and procedures. Most of these certification schemes are voluntary, so what makes the companies incur the sometimes substantial costs involved?

Most managers of certified companies say that the main reason is to build trust with their stakeholders; these could be the government, the end consumer or community at large. "It provides certainty in uncertain times," explains Peter. "It is important to remember that certification doesn't mean problems won't happen; rather the certified company can expect fewer problems and also have the methods in place to quickly identify the cause of the problems and ways to overcome them."

Other benefits of certification include:

- Market access (marketplace requirement)
- Compliance with Government requirements or guidelines
- Quality system results in farm

improvements (knowledge of process gives an edge, look for cost efficiency, focus on helping bottom line)

- Additional promotion – eco-label or organic
- Better price (most noticeably with organic)
- Provides a tool to assist the company meet specific objectives.

Most producers agreed that consumers would choose seafood products certified as environmentally friendly over uncertified products; however, these products don't usually command a higher price. The exception are aquaculture products (such as Atlantic Salmon) that are certified organic which consistently command a premium of up to 50% over comparable uncertified product (with the economic downturn, a 20-25% premium is now more common).

It is usually the standards owner or the certifying body that promotes the system. For example, the Marine Stewardship Council has promoted their fisheries sustainability program so well that key markets around the world (UK, Germany, USA and Japan) will only take MSC-certified product (box insert).

Consequently, market access is the most observable benefit at present – in Australia the two main supermarket chains (Woolworths and Coles) have policies for their purchases of sustainable seafood and all of the minor chains are also working on similar policies. So does McDonald's (box insert).

The Seafood Trust Eco-Label is the world's first aquaculture eco-label certification program that has been accredited to ISO65/EN450011. The program is administered by Global Trust, and can be implemented at all stages of the supply chain from egg/ova to plate with a focus on traceability and consistency through out. "It shows the company has demonstrated their commitment to delivering the best quality seafood in the world," says Peter. "And their commitment to the highest of environmental standards, low impact farming and conservation when producing and processing seafoods."

Cooke Aquaculture, one of North

## MSC- Blue Eco-label for Sustainable Fisheries

The MSC Standard for Sustainable Fisheries ([www.msc.org](http://www.msc.org)) has an impressive rollout – over 700 certified facilities along the chain of custody, and over 2,000 MSC blue-label seafood products (these range from prepared seafood meals to fresh fish from the fish shop)

### UK retailers (almost 300 products at Nov'08):

- M&S – public support, 5 year target of 100% MSC fish
- ASDA sets 100% MSC fish target for its range of fresh and frozen seafood.
- Sainsbury's pledged to be number 1 for MSC.
- ASDA, Morrisons, Waitrose, Sainsbury's and Tesco all have certified their fresh fish counters.
- Iceland, Aldi, Lidl Co-op & Sainsbury's all have at least one product.

### German retailers (>320 products at Nov'08):

- Edeka will only offer sustainably sourced fish by end of 2011, focussing on products with the MSC label for wild capture.
- Friedrichs state 'Our sourcing is dependent upon the kind of demand that the MSC creates.'
- Lidl committed to gradually increase their offer of MSC products in 3,000 outlets.
- 58% of Iglo Germany's fish carry the MSC logo.

### North American retailers (>300 products at Nov'08):

- World's largest retailer, Wal-Mart, committed to sourcing 100% MSC certified seafood by 2011 (wild – fresh & frozen).
- Target now offering 15 seafood private label products with the MSC eco-label in more than 1,600 outlets.
- Loblaw's Canada's # 1 retailer, 1,100 stores coast to coast launches "President's Choice" MSC product line, committed to sourcing MSC certified seafood for all departments.
- Wholefoods Market, world's largest organic food retailer, committed to sourcing and promoting MSC certified seafood in all stores across the U.S.

### Japanese retailers (>140 products at Nov'08):

- Aeon is actively promoting action to provide sustainable seafood products together with their customers.
- JCCU COOP commitment to offer MSC-certified products to COOP members in order to promote sustainable and well-managed fisheries.

Australian or New Zealand producers and retailers include ALDI, Birds Eye, Friedrichs, Geraldton Fisherman's Co-op, John West (A & NZ), Sanford, Sealord (A & NZ) and Talley's.

America's largest salmon producers has had their hatcheries, silvwater farms and processing facilities audited over the past few years.

### What is better – national or global standards?

The experts agree that there isn't room for dozens and dozens of seafood

certification schemes. "There is a lot of talk about the proliferation of all kinds of standards and schemes causing some confusion, particularly with the end consumer," says Grimur Valdimarsson (FAO Fisheries & Aquaculture Dept) Italy. "There is a popular view for a 'minimum environmental standard' against which to certify fisheries (seafood). This

was discussed at an OCED fisheries certification workshop in April (2009) with invited specialists from around the world on capture fisheries, aquaculture and Ecolabelling certification."

The FAO have developed 'minimum substantive criteria' for ecolabels that will be presented at next meeting of Committee on Fisheries (COFI) in March 2010.

Global Trust has benchmarked a number of standards, including the Seafood Trust Program against these criteria. "This is part of the continuous development and evolution of standards," Peter states, "which should be reviewed and up-dated with new knowledge and experience on a regular basis. For example the Certified Quality Salmon Committee would meet between three and six times a year depending on requirements."

Producers in both Australian and New Zealand often complain that there is not a level playing field for their certification, mainly because the vast majority of imports are not certified. On the other hand with exports there is often a raft of

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## McDonalds' Policy on Sustainable Fisheries

Excerpts from <http://www.crmcdonalds.com/publish/csr/home/search.html?query=fish>

Because fisheries are under increasing economic and environmental pressures, McDonald's recognises its responsibility to help protect the health and productivity of fisheries. High-quality whitefish is important to their menu worldwide.

McDonald's Australia purchases approximately 1.2 million kilos of fish a year. Globally McDonald's purchases less than 1% of the total whitefish population. Primarily, McDonald's suppliers source fish from different parts of the world including the Bering Seas, Alaska, New Zealand, and Chile. The main whitefish species that McDonald's fish suppliers use are Pollock, Cod, Hake, and Hoki (New Zealand and Chilean).

McDonald's has been monitoring the conditions of these fisheries since 2001. Following that effort, McDonald's worked with Conservation International (CI) to develop an evaluation process for their suppliers to help gain a snapshot of the fisheries from which they source. McDonald's has been using this spotlight system since 2004. It is used to move fish purchases away from unsustainable sources.

As verified by the Marine Stewardship Council's (MSC), McDonald's standards are consistent with the MSC's Principles of Environmentally Responsible and Sustainable Fishing. The vast majority of McDonald's fish is already sourced from MSC certified fisheries. McDonald's is supporting remaining

supply fisheries, working with the Sustainable Fisheries Partnership, to seek additional verification of their own sustainability through MSC or other credible, third party certification programs.

McDonald's Global Fish Forum – a mix of McDonald's supply chain and corporate citizenship leadership, fish purchasing managers in our local markets, and Conservation International representatives – reviews the ratings, shares updates on global sourcing, investigated alternatives for stressed species, and develops recommendations for species usage in their supply chain. McDonald's international fish team is currently developing sustainability standards in relation to farmed fish.

different requirements and certifications needed to gain access to specific markets. Thus there is strong interest in establishing certification systems in both countries. However, people can't agree on the process. Some suggest we should do our own standards, others think it is better to adapt international schemes for our purposes.

An example of the first group is Seafood Service Australia's Ted Loveday who with Australian Made Scheme Ltd is promoting a scheme where Australian seafoods would be marketed under the 'Australia Made' logo with other products, both primary and manufactured. The 'Australian Sustainable Seafood' brand

would be used by the aquaculture, fishing, processing, processing, transportation, storage, labelling and sales sectors for a whole of value chain certification.

Others suggest it is best to use one or more of the global systems. Dr Sasha Courville, Executive Director of the ISEAL Alliance, has worked with or examined most of the food certification systems in place. She happily gives this advice: "Don't re-invent wheel and make a local or national system. Examine the different standards, choose the one or ones best suited and then determine national or regional performance indicators for that standard(s). Then link them together or bolt onto the basic standard."

Sasha says that ISEAL is working to assist standards owners to integrate and coordinate with others to obtain some agreement on equivalency between the standards. "We are looking to make it easier for the consumer, retailer and producer recognise the better schemes for themselves, and avoid some of the 'Turf Wars' which are occurring with different Standards Owners or Certifying Bodies saying their systems are better than others." Sasha, like Grimmer, believes that a meta-

system is required, integrating or coordinating international or global schemes and allowing regional or national schemes to link in. "Social and environmental standards systems are poised to play a critical role in addressing global sustainability challenges. For this to happen, we need a globally agreed understanding of best practice that will set the bar for all standards systems to meet, exponential scaling up of the impacts of these systems and unparalleled cooperation among standards systems."

Whatever system we choose, there is no doubt that certification of our seafood the end consumer.

By *Dos O'Sullivan*.

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## Attachments

### Attachment 4: Presentation on Product Certification

# Product Certification – is it the ‘third tax’ or a great way to differentiate your products from your competitors’?

Dos O’Sullivan

Dosaqua Pty Ltd

0418 130-595, [dos@dosaqua.com.au](mailto:dos@dosaqua.com.au)

Many thanks for input from Global Trust Certification ([www.GTcert.com](http://www.GTcert.com))

Thoughts on the future requirements for environmental certification for primary industries (examples from seafood in Europe) and ramifications for international and domestic marketing

## Fellowship Funding

- This presentation is based on study undertaken in Ireland and the UK as part of the **ISS Institute / DEEWR (Dept of Education, Employment and Workplace Relations) TRADES Fellowship**, sponsored by the International Specialised Skills Institute Overseas Fellowship Program .

### International Specialised Skills Institute – contact **Carolynne Byrne**

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## What can't you avoid?

- “In this world nothing can be said to be certain except taxes and death ...”  
Ben Franklin 1789
- Like income tax, another unavoidable ‘tax’ on our struggling businesses is the cost of compliance to the myriad of government regulations and permits.
- It is CERTAIN that product certification will add more to the costs of production
  - But is it the third ‘tax’ or something more beneficial?

## Certification is already here

- Has anyone seen the recent adverts in various media for McCafe? –their coffee is certified by the **Rainforest Alliance**
  - i.e. the coffee hasn't resulted in rainforest degradation, nor are the workers badly treated
  - Many other coffee outlets also have similar certification from other schemes such as Free Trade.
- Many other examples ....



[www.mccafesustainablecoffee.com](http://www.mccafesustainablecoffee.com)

## Attachments



GREENPEACE

## Why?

- It is no secret, European, Japanese and North American retailers are now considering 'green issues' more often when purchasing seafood and other consumer products.
- The reason is not rocket science – a growing majority of their customers are recognising the need to only buy eco-certified products (promoted by ENGOs such as WWF, Greenpeace).
- Highlighting its growing importance, certification was the basis of key note sessions and papers at recent international seafood conferences and workshops in the EU and USA.
- A similar situation is developing in Aust & NZ.





**GREENPEACE** The Challenge?

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## Major Shift in Market Focus

- Peter Marshall, Chief Executive of Global Trust Certification ([www.GTcert.com](http://www.GTcert.com)), one of the world's leading seafood certification business, says that there has been a major shift in the market focus:
  - The market is no longer focussed on superior product quality assurance.
  - It used to be companies striving to show they were the so-called 'best in class'. Now the focus is firmly on reassurance.
  - Companies are defending their claims on a wide scope of issues (see next slide).
  - This certification needs to occur along the production chain from raw materials to finished goods – the so called 'net to plate' or 'water to waiter' schemes.

## Types of Certification

- Food Safety (including HACCP)
- Region or Country of Origin
- Traceability
- Supply Chain Assurance (Chain of Custody)
- Environmental Management
- Social justice (workforce & people management)
- Organic Produce
- Animal Welfare
- Biosecurity
- Occupational Health and Safety.

## Domination of Supermarkets

- Global Trust reported that in the EU and the USA recent surveys shown that between 75-90% of all food sales (including seafoods) are through supermarkets.
- Sales through the traditional fishmonger are only 8-10%.
- To this end the supermarkets in those countries are getting tougher with their demands – many of the leading brands have introduced sustainability criteria in their purchasing process.



We believe in sustainable fishing.  
Hook, line and sinker.

look behind the label



## Food Service

- Food service companies (caters, armed forces, cruise-ship lines, etc.) are now major purchasers of seafoods and other products.
- ENGOs are targeting them as well – more bang for their buck!
- Their choices on who they buy from are obviously being influenced – sustainable sources is the most common requirement.

## Third Party

- Producers can make the claims that they are doing things the right way.
- But who will believe them?
- Public perceptions for our industry are not good - 'rape & pillage of the seas by fishers' or 'uncontrolled chemical/hormone use in aquaculture'.
- We know we are doing much better than that!
- However, the real strength to our claims ONLY comes from independent third-party certification against nationally or internationally recognised standards.

## What is a standard?

- Global Trust - 'A standard is a requirement that is determined by a consensus of opinion of users (stakeholder committee) that prescribes the accepted and (theoretically) the best criteria for a product, process, test or procedure.'



## Certification Process

- The standards process is very complicated, with a spider's web of different organisations and bodies, often using different titles; however, at its simplest it involves three levels:
  - **Standards Owner / Holder** establishes quality standards and/or regulations (many of these are ISO65/EN45011 accredited, the international program for product and process certification), often sets conditions for Certifying Body.
  - **Accreditation Body** checks the third-party

## Components of a standard

Example provided for a biotoxin standard for shellfish safety:

- **Principle or objective** – To deliver a safe product to the consumer.
- **Protocols or criteria** – Products shall not contain levels of natural contaminants that are harmful to human health.
- **Indicator of performance** – Natural toxin levels.
- **Assessment protocol** – According to legal reference this could be every harvest batch or every week.
- **Minimum standard** – Legal limit for Paralytic Shellfish poison is 0.8ug/g or 0.8mg/kg (Maximum Limits).
- **Measurement criteria** – Testing by a National Association of Testing Authorities (NATA) approved laboratory.

## Seafood Standards - Fisheries

- At present there are only two international schemes for certifying wild fisheries, both have been utilised in Australia and New Zealand:
  - **Marine Stewardship Council** ([www.msc.org](http://www.msc.org))
    - funded by Unilever and WWF
  - **Friend of the Sea** ([www.friendofthesea.org](http://www.friendofthesea.org))
    - Only seafood certification scheme which has same seal of approval for both farmed & wild-caught.

## Seafood Standards - MSC

- WA Rock lobster (first fishery certified in the world (2000))
- The Lakes and Coorong (SA)
- Australian Mackerel Icefish (WA)
- Hoki (NZ)
- Plus 5 others undergoing certification
  - NZ Southern Scallop fishery
  - NZ Albacore Tuna troll fishery
  - NZ EEZ Hake trawl fishery
  - NZ EEZ Ling trawl and longline fishery
  - NZ EEZ Southern Blue Whiting pelagic trawl fishery



## Seafood Standards - FotS

- Clean Seas Aquaculture
- Shrimp Trawl Fishery (NT)



- The Australian Southern Rocklobster Clean Green Program ([www.southernrocklobster.com](http://www.southernrocklobster.com))
  - Offers 'pot to plate' certification
  - Accredited against JAS-ANZ



## Seafood Standards - Aquaculture

- Global Aquaculture Alliance (GAA) BAP
- Global GAP
- Certified Quality Aquaculture Standards (eg. CQS/CQM)
- Friend of the Sea
- Organic Standards
- ISO14000
- Safe Quality Food (SQF)
- BRC Global Food Standard
- Emerging – WWF Standards (establishing the Aquaculture Stewardship Council) and IFFO Feed Materials Standards.

## Labels used in Europe

- Eco-, organic and quality labels are in use.
- Examples include the Label Rouge (France), GAA Best Aquaculture Practices (USA), Marine Stewardship Council (EU), Naturland (Germany, organic) and BIM Eco-Quality Assured (Ireland).
- It is important for the certifiers, industry and environmental groups to build the credibility and consumer recognition for these labels.



## Australian Made, Australian Grown

- Project by Seafood Services Australia, Seafood Experience Australia and Australian Made Campaign for Australian seafood.
- Seeks to ([www.australianmade.com.au/australiangrown](http://www.australianmade.com.au/australiangrown)):
  - clearly brand, label and promote Australian product;
  - effectively differentiate Australian product from imported product in domestic markets; and
  - build the market profile and brand recognition of Australian products in international markets



## What is the Best Choice?

- It is a case of 'horses for courses'
- Peter Marshall – Many certification schemes are saying the same thing with around 80% commonality.
- Although some are better than others, depending on the issues to be assessed.
- For example, the **MSC** is interested in the environment and social justice; it is not concerned about food safety which is the primary focus of the **BRC Global Food Standard**.

## Does it work? MSC example

- According to the MSC as at Nov'08 they had hundreds of certified seafood products in the following key markets:
  - UK retailers - almost 300 products
  - German retailers - >320 products
  - North American retailers - >300 products
  - Japanese retailers - >140 products
- It was also reported MSC had commitments from significant numbers of major retailers to move towards only selling environmental certified products within a few years.

## Other Benefits

- Most certification schemes are voluntary, so what makes the companies incur the sometimes substantial costs involved?
- Most managers of certified companies say that the main reason is to build trust with stakeholders.
- It is important to remember that certification doesn't mean problems won't happen; rather the certified company can expect fewer problems and also have the methods in place to quickly identify cause of the problems and ways to overcome them.

## Price Increase?

- For most certification there is usually no significant price increase for the product at the producer level – maybe achieved at the wholesaler level.
- Exception is organic for which seafoods have been reported to obtain a premium up to 50% a few years ago – now more like 20-25% premium.
- Compliance with Government requirements or guidelines may mean reduced costs.
- Certification can also identify cost efficiencies, assess bottom line, increased production savings.

## Concerns

- The experts agree that there isn't room for dozens and dozens of seafood certification schemes.
- Grimur Valdimarsson (FAO Fisheries & Aquaculture Dept) Italy:
  - There is a lot of talk about the proliferation of all kinds of standards and schemes causing some confusion, particularly with the end consumer
  - There is a popular view for a 'minimum environmental standard' against which to certify fisheries (seafood).
  - This was discussed at an OCED fisheries certification workshop in April (2009) with invited specialists from around the world on capture fisheries, aquaculture and Ecolabelling certification. Proceedings published by FAO.

## Take Home Messages

- Certification will become an accepted cost of production all along the supply chain.
- Driven by major buyers (with seafood this is supermarkets & food service) - no certification = no market access.
- No price premium except for organic.
- Several different & allied certification schemes may need to be used by a producer.
- Implementation should result in production benefits & savings due to 'doing business better'.
- Potential for reduction in compliance costs – but would governments want to reduce their incomes? ... that is another story!