



# Overview of the Farmed Shrimp Market: The Drivers for Sustainable Farmed Shrimp

Philip Chou, Seafood Choices Alliance

Eric Punkay, SeaWeb



Seafood Choices Alliance, a project of SeaWeb, is an international association advancing the market for sustainable seafood that convenes and connects a network of leading voices. By acting in this neutral role, the Alliance creates a “safe” environment for dialogue and collaborative action that can lead to industry-wide change. Founded in 2001, the Alliance helps the seafood industry - from fishermen and fish farmers to distributors, wholesalers, retailers and restaurants - to make the seafood marketplace environmentally, economically and socially sustainable.





# Contents

1. Global Aquaculture Trends and the Shrimp Market
2. What Consumers are Looking For: The Premium Afforded by Environmental Performance and Quality Assurance
3. Retail Trends on Sustainability: Differentiating Amongst Competitors
4. The Need for Greater Harmonization and Performance-based Standards

# World Aquaculture Production

- Early 1950s  
    <1 million mt
- 2004  
    45.5 million mt  
    91.5% from Asia-Pacific



# Shrimp/Prawn Aquaculture



- 2004
  - 2.48 million mt
  - 28.7% APR (annual percentage growth rate) since 2002
- 2005
  - 2.67 million mt =
  - 43% of world shrimp production

# Europe (EU) at a glance

- 27 countries; lots of cultural difference - per capita consumption varies from 8 - 60 kg seafood, averages 24kg per capita (EU)
- The EU is the world's biggest shrimp importer
- The 'Big 5' are France, Spain, Italy, UK and Germany  
~77% of shrimp imports



# The USA



- Seafood is the fastest growing protein in the USA. Projected increase of 6% from 2000 - 2020
- The top 4 species by volume are shrimp, canned tuna, salmon and Alaska Pollock. Top 4 species by sales are shrimp, salmon, crab, and tuna
- Shrimp = 25% of all seafood consumed annually at 2kg/capita/year; US\$50-60bn (retail) industry in shrimp alone; ~ 82% of shrimp consumed is imported and mainly comes from developing countries





# USA continued

- The US is currently importing around 560,000 mt of shrimp with Thailand holding the highest share
- Approximately 24% are secondarily processed, i.e: breaded. The remainder is almost equally split between peeled and frozen, shell on, and headless
- 2004 US anti-dumping measures have not been effective, and some have been recently declared illegal by the WTO



# Emerging Asian Market



- Asian seafood consumption: 5-65 kg/capita (Avg: 20.5 kg/capita) Leader in exports and now increasing its imports

- Value-added products are the key marketing strategy in Asia today



## Japan

- Third largest shrimp importer, 276,222 mt in 2007
- Per capita consumption of shrimp ~ 2.15 kg  
All seafood: 65.7 kg/capita





## China

- Seafood Consumption: 11.5 kg/capita in 1990 to an avg 25.6 kg/capita in 2006. Rise of 40% to 35.9 kg/capita is expected by 2020
- 1996-2006 saw a tenfold increase in domestic consumption of shrimp
- Produces about 41% (2.5 mt) of world's shrimp (farmed and capture) and is the world leading producer in shrimp aquaculture--expected to produce well over one million tons in 2007. *P. vannamei* shrimp (white-leg) has become the cash crop accounting for 300,000 of 500,000 tons farmed production in 2003.
- Series of import bans from trading partners related to antibiotic contamination and carcinogens has overshadowed growth of seafood production in 2007



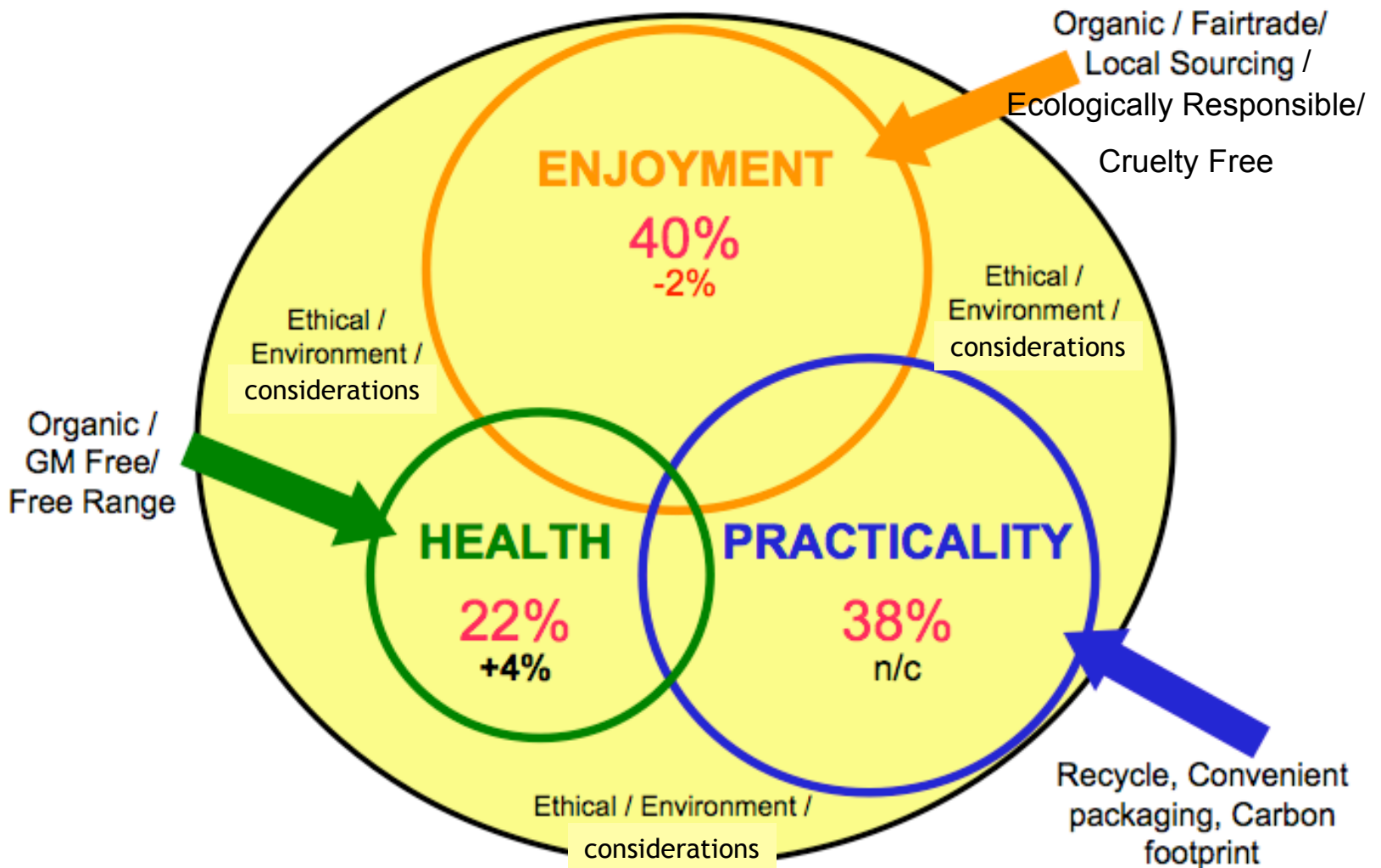
# What do consumers want?



# Communicating via labels



## An Emerging Environmental driver relating to all







**TESCO**  
*Every little helps*

**WAL\*MART**  
Save money. Live better.™

# Sustainability: Passing fad or here to stay?

**W**elcome to sustainable. After many years on the margins, where business transactions were the driving force, today's consumers are looking for better and greener choices.

**A**t first glance, fishing from a small boat with a pole and line may seem a sustainable, traditional way to catch fresh fish for a big 60/60 supermarket.

**I**ncentive is being given to do this with the very latest thinking from environmentalists, green and organic certification experts.

**T**he ultimate, however, the Yellowfin Tuna, is a sustainable species. The concept of being supported by small-scale fishing communities, the benefits in the Middle East and elsewhere, and as important factors continue to be a way of fishing, and the sustainable selling of products and other products.

**R**esponsible fishing methods that are sustainable and safe for the planet.

**O**ur policy is to sell only fully traceable, sustainable seafood from a sea over 1000 miles ago.

**S**ince then, we've shipped selling more than 20 species considered to be under threat, and you, that all these are with plenty to choose from. We currently sell 15 species of fresh fish and seafood, and not one of them is from unsustainable fishing waters.

**E**very

Ibrahim's Yellowfin Tuna  
£12.79/kg

**We believe in sustainable fishing. Hook, line & sinker.**

Greenpeace & the Marine Conservation Society ranked us the top UK retailer for responsible fishing in 2005.

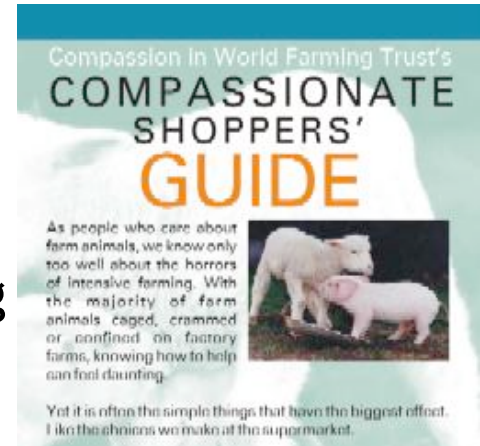


YOUR **M&S**  
look behind the label

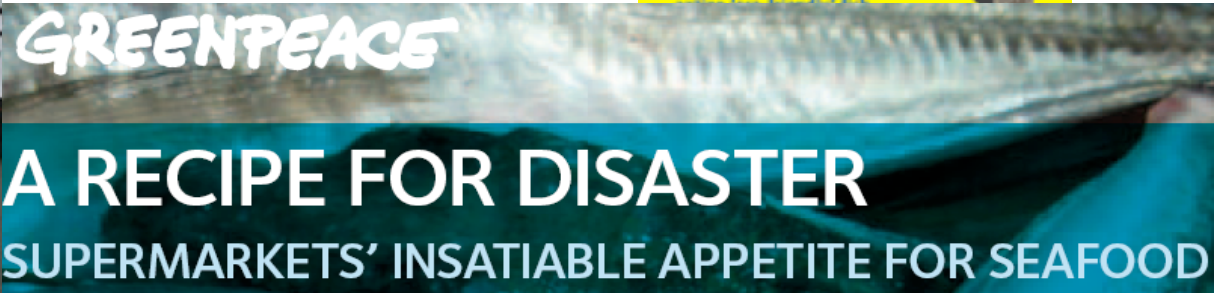
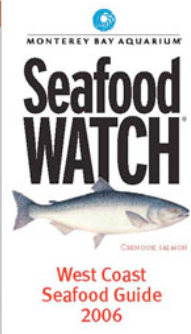
# A Few Examples of NGO Action



- 1) Red, Yellow, Green--Seafood Cards
- 2) Aquaculture Dialogues-standards setting
- 3) Marine Conservation Society: Good Fish Guide and league tables
- 4) Greenpeace Report on Retailer Fish Sourcing in the UK and now in the US



BEST CHOICES	GOOD ALTERNATIVES	AVOID
Abalone (farmed) Catfish (US farmed) Clams, Mussels, Oysters (farmed) Cod: Pacific (longline-caught from AK)* Crab: Dungeness, Snow (Canada) Halibut: Pacific Lobster: Spiny (US) Petcock (wild-caught from AK)* Rockfish: Black (CA, OR) Sablefish/Black Cod (AK, BC) Salmon (wild-caught from AK)* Sardines Shrimp: Pink (OR) Spot Prawn (BO) Striped Bass (farmed) Sturgeon, Caviar (farmed) Tilapia (US farmed) Trout: Rainbow (farmed) Tuna: Albacore, Bigeye, Yellowfin (troll/pole-caught) White Seabass	Bass/Tra (farmed) Clams, Oysters* (wild-caught) Cod: Pacific (trawl-caught) Crab: King (AK), Snow (US), imitation Dogfish (BC)* Flounders, Soles (Pacific) Lingcod Lobster: American/Maine Mahi mahi/Dolphinfish/Dorado Rockfish (hook & line-caught from AK, BC)* Sablefish/Black Cod (CA, OR, WA) Salmon (wild-caught from CA, OR, WA) Sanddab: Pacific Scallops: Bay, Sea Shrimp (US farmed or wild-caught) Spot Prawn (US) Squid Sturgeon (wild-caught from OR, WA) Swordfish (US)* Tuna: Albacore, Bigeye, Yellowfin, (longline-caught)* Tuna: canned light Tuna: canned white/Albacore*	Chilean Seabass/Toothfish* Cod: Atlantic Crab: King (Imported) Dogfish (US)* Grenadier/Pacific Roughy Lobster: Spiny (Caribbean imported) Monkfish Orange Roughy* Rockfish (trawl-caught)* Salmon (farmed, including Atlantic)* Sharks* Shrimp (Imported farmed or wild-caught) Sturgeon/ Caviar (Imported wild-caught) Swordfish (Imported)* Tuna: Bluefin*





# Is it here to stay?

- Businesses are working in partnership and dialogue with NGOs and Scientists to make this happen
- Developing policies, investment in research, marketing
- Responsibility is increasingly an integrated strand across Business: Waste, Packaging, Sourcing, Footprint
- There is a business case that sustainability provides for the long-term



# Procurement policies

- Most retailers & processors have a responsible fish sourcing policy in some form
- Many are actively engaged in multi stakeholder engagement across the supply chains, and/or working with regulators, and/or leading research projects



**Farmed Shrimp  
Purchasing Standards  
October 2007**



**Goals and purposes**

Wegmans has established a purchasing policy for farmed shrimp in order to provide environmentally-preferable products for our customers and to promote environmental progress in the shrimp aquaculture industry in the Americas. This policy requires suppliers to take important steps forward on key environmental issues, to set a specific timetable for implementing these changes, and to implement an auditing and reporting system to insure that real progress is made.

As new technological developments or research findings become available, we will modify the policy to continue to reflect the latest scientific information and to continue to push aggressively for environmental progress. The policy is intended to build upon and promote the Principles for Responsible Shrimp Farming developed by the Consortium on Shrimp Farming and the Environment. It is important to note that these purchasing standards focus on key environmental impacts. They do not directly address other issues such as labor and social justice issues associated with some sectors of the shrimp farming industry. The standards do, however, require suppliers to comply with all applicable laws, including labor laws, in operating and siting their facilities, and to not impede community access to public resources.

The purchasing policy consists of two interconnected parts – a set of performance-based purchasing standards based on best available techniques and environmental outcomes and an implementation plan covering auditing, reporting and timeline for making operational changes. Under the implementation section, suppliers are required to provide an annual public report demonstrating their performance on the standards below, and guidance is provided on the specific information that should be included in that report.

**Purchasing standards**

Wegmans will only purchase farmed shrimp that is high quality, healthful, and environmentally preferable, as demonstrated by the following purchasing standards. These standards apply to coastal operations growing shrimp in sea water. This purchasing policy is intended to reinforce local government requirements and compliance is consistent with or more restrictive than local or other applicable laws. Additional background and technical information about the standards is detailed in an appendix.

1. Purchased shrimp meets all U.S. and international health standards and advisories for regular





## FARMED SHRIMP SUSTAINABILITY POLICY

Lyons Seafoods Limited sources all its farmed shrimps from suppliers that can demonstrate compliance to the Best Aquaculture Practices (BAP) as laid down by the Global Aquaculture Alliance (GAA).

The BAP define the most important elements of responsible aquaculture and provide quantitative guidelines and auditing procedures by which to evaluate adherence to those practices. The Aquaculture Certification Council (ACC) runs the certification program which combines site inspections and effluent sampling with sanitary controls, therapeutic controls and traceability.

Lyons Seafoods sit on the board of both the ACC (Aquaculture Certification Council) and the GAA (Global Aquaculture Alliance).

Our sustainability policy addresses the following issues which are comprehensively covered in our 'Farmed shrimp code of practice'.

### The mangrove issue

In the past, shrimp farming suppliers to protect this value to conserve and replant mangroves and the local mangrove area for reforestation. Many shrimp farming suppliers have lost their mangrove habitat by aerial spraying (see example).

### The effluent issue

In the year 2000, the GAA encouraged farms. We require all our suppliers to also promote and encourage

### The wild shrimp issue

All brood stock in shrimp farming has an impact by:

- Increasing our buying of wild shrimp, i.e. not farmed
- Sourcing Black Tiger shrimp from wild sources into domesticating them

### The fish meal issue

Some of our suppliers do not source fish meal naturally

Where fish meal is used in aquaculture, it is an accusation that the industry produces as it grows.

It must be noted that fish meal is generally not suitable for

feeding of fishmeal stocks, annual worldwide fishmeal production has remained stable at 6-7 million metric tons. According to the UN Food and Agriculture Organisation, stocks used for fishmeal production are classified, not as 'over fished' or 'depleted', but as 'fully fished'.

### The ethical issue

We are dedicated to the ongoing Ethical Trading Initiative and we include all their requirements into our Lyons Seafoods Ethical Trading Base Code.

We strive in building partnerships with all our suppliers to ensure that all and every one of them understands their responsibility for the labour and human rights practices to of all their workers. An active program of documented supplier audits and visits will be maintained and we will only support suppliers who can satisfactorily demonstrate conformance to the Lyons Seafoods Ethical Trading Base Code.

### Antibiotics Issue

To combat and eliminate the illegal use of antibiotics in aquaculture Lyons source only from suppliers who can demonstrate full traceability and control from processing, ponds, feed mills back to broodstock. Lyons is currently the only processor in UK with a fully accredited in-house testing capacity able to detect illegal usage of antibiotics down to the required level of 1.0ppb and below.

### Environmental Issue

Lyons Seafoods is committed to a sustainable and ecologically sound Seafood industry operating in harmony with the environment.

Fuel, lubricants and agricultural chemicals shall be stored and disposed of in a safe and responsible manner. Animal by-products, paper and plastic refuse shall be disposed of in a sanitary and responsible way.

Lyons Seafoods will work with suppliers to maintain high environmental standards and work towards the broader objective of long term sustainability.

The policy will be clearly communicated through the issuing of Lyons Seafoods Supplier Code of practice.

OLE NORGAARD  
Chief Executive

LYONS SEAFOODS

## SOCIALLY RESPONSIBLE SOURCING POLICY

Lyons Seafoods is committed to ensuring their products are sourced and processed under a minimum set of internationally acceptable conditions of employment based on the Fundamental ILO Conventions with the main principles being as indicated below:

1. Employment is freely chosen
2. Freedom of association and the right to collective bargaining
3. Working conditions are safe and hygienic
4. Child labour shall not be used
5. Living wages are paid
6. Working hours are not excessive
7. No discrimination is practiced
8. Regular employment is provided

is allowed

With all our suppliers to ensure that all and every one of them understands their responsibility for the labour and human rights practices to of all their workers.

Indicated through the issuing of Lyons Seafoods Ethical Trading Base Code.

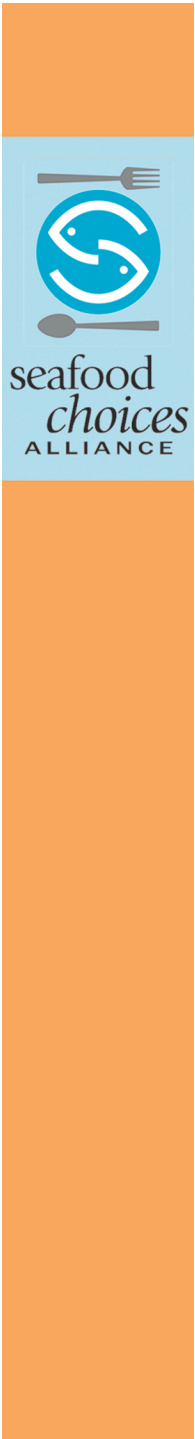
Regular supplier audits and visits will be maintained and we will satisfactorily demonstrate conformance to the Lyons Seafoods Ethical Trading Base Code.

LYONS SEAFOODS



## What are the buyers looking for in an assurance scheme for aquaculture products?

- ✓ Operating in an environmentally and socially responsible manner including impact from farm site and management
- ✓ Compliance with legal restrictions on farm size, discharges, environment monitoring etc
- ✓ Prevention of escapes
- ✓ Food safety controls, ie veterinary medicines, pigments, feed safety, contaminants
- ✓ Welfare, including handling, stocking densities, slaughter practices
- ✓ Ethical farming: non-GMO, feed sustainability, farming labour
- ✓ Working/social standards of employees

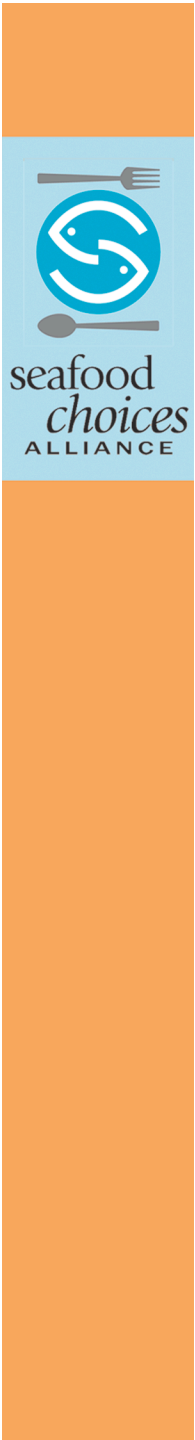


## Why ecolabels and assurance schemes?

- ✓ This is the tool that every buyer wants to provide: traceability, assurity of responsible production and, in some cases, to demonstrate difference
- ✓ Where such labels of assurance are not available they are being created

# Who are the assurance schemes for?

- ✓ FOR THE PROCESSOR; labels, schemes and certification provide information about the product's source and the way it was produced.
- ✓ FOR THE BUYER; the label makes purchasing 'safer' for the corporate buyer; safeguarding brand and reputation
- ✓ FOR THE CONSUMER; the label reassures the consumer, and makes their 'ethical purchasing choice' easy
- ✓ FOR THE PRODUCER; appropriate assurance can help provide access to markets, better or more guaranteed prices - as well as helping safeguard the local environment and improve social conditions



# Different labels for different assurances

## Business to Business

Compliance, regulation; reassuring Buyers of a minimum standard of governance



**GLOBALGAP**

## Business to Consumers

May look at specific set of criteria such as animal welfare



## Certification

Tend to go beyond compliance, a continuous improvement process, pushing the industry standards across environmental impacts and animal welfare





## Some principal fisheries related labels

- Marine Stewardship Council (MSC)
- Earth Island 'Dolphin-safe' International Dolphin Conservation Programme
- Krav (Sweden)
- Naturland



Thai Quality Shrimp. Carrefour. Label Rouge. Shrimp Seal of Quality.

Fundacion Chile. Responsible Aquaculture. Brand Canada.

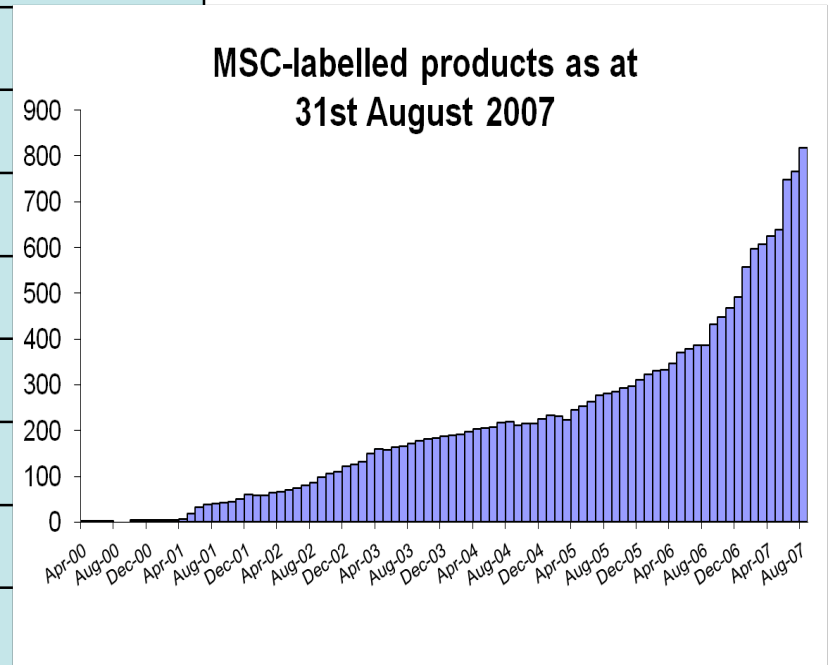
Alter-Trade Japan. Debio. Soil Association.

Irish Eco-Mussel. Bio Suisse. Milleukeur. SPLAM. Tartan Quality Mark

# MSC labeling



Countries	Number of products
Switzerland	69 MSC
Sweden	44 MSC
France	13 MSC
UK	87 MSC
USA	93 MSC
Japan	14 MSC
Germany	63 MSC
Spain	2 MSC
Italy	3 MSC





# The industry needs to develop and harmonise a global aquaculture certification scheme

- Growing number of certification standards causes confusion.
- Need harmonised standards that meet all key stakeholders needs. Standards must be robust and have credibility with all parties
- How do we agree on the criteria?
- How do we ensure credibility?
- How do we create the harmonisation needed?
- Can it work globally, across species and regions?



# Take aways



- ★ There has been massive growth in the general shrimp markets
- ★ Major buyers need guaranteed continuity of good value, good quality, responsibly produced product, verified by a credible, third party system
- ★ There are good opportunities to add value at the producer level
- ★ We can find smart solutions that benefit everyone, by working together through the supply chain, by exploring new ideas and by looking beyond shrimp

# Sources



Shrimp Production Estimates & Trends by James L. Anderson and Diego Valderrama, University of Rhode Island. Presented at Global Outlook for Aquaculture Leadership 2007, Madrid. <http://www.gaalliance.org/>

Glitnir - China Seafood Industry Report. (November 2007) <http://www.glitnirbank.com/services/seafood-industry/seafood-industry-reports/>

FAO - <http://www.fao.org/fishery/statistics/programme/3,1,1>, [www.globefish.org](http://www.globefish.org)

The US Marketplace for Sustainable Seafood: Are We hooked Yet? Seafood Choices Alliance (due May 2008)

The UK Marketplace for Sustainable Seafood. Seafood Choices Alliance (April 2007) [www.seafoodchoices.org](http://www.seafoodchoices.org)

Issues, Opportunities and Obstacles in Advancing Sustainable Seafood by Howard Johnson. Presented at the 2008 Barcelona Seafood Summit. Available at [www.seafoodchoices.org](http://www.seafoodchoices.org)

Fisheries in Asia by Fatima Ferdouse. Presented at the 2008 Barcelona Seafood Summit. Available at [www.seafoodchoices.org](http://www.seafoodchoices.org)

Global Trends in Seafood and Sustainability: Market Movements and Trends by Marie Christine Monfort. Presented at the 2008 Barcelona Seafood Summit. Available at [www.seafoodchoices.org](http://www.seafoodchoices.org)



Philip Chou

Manager of Conservation Outreach  
Seafood Choices Alliance

Email: [pchou@seafoodchoices.org](mailto:pchou@seafoodchoices.org)