



THE MARKET AND FARM-LEVEL IMPLICATIONS FOR ASC-CERTIFIED BRAZILIAN SHRIMP

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- 1990s - Shrimp **trawling** versus shrimp **farming**
- 1990s - Co-founded the **Consortium on Shrimp Farming and the Environment**
- 2000s - International **Principles for Responsible Shrimp Farming**
- 2004-14 **Aquaculture Dialogues**
- 2010 - **Aquaculture Stewardship Council (ASC)**

ASC is the **most credible** aquaculture certification

WWF and AQUACULTURE

population \times consumption \neq





$$\times 1 = 7$$

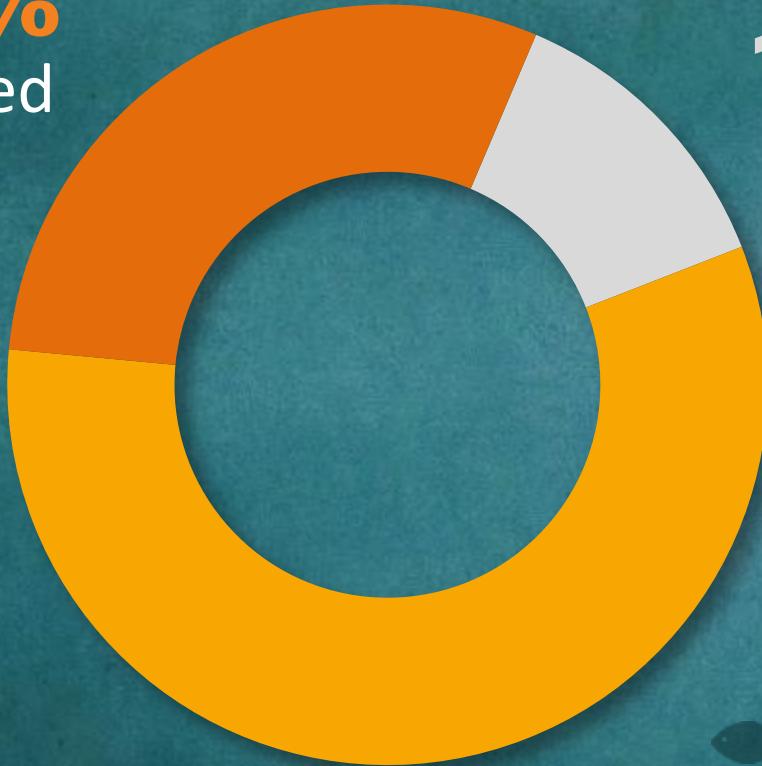


$$\times 2 = 18$$



Status of world fisheries

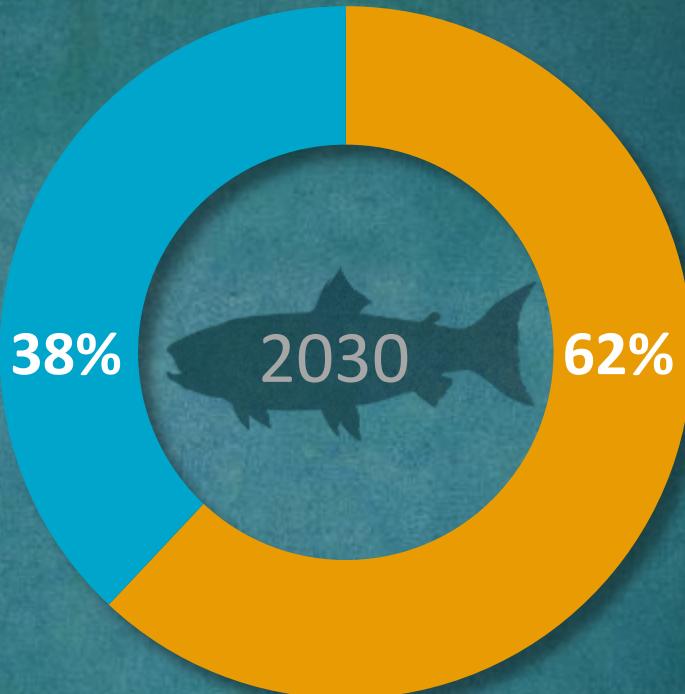
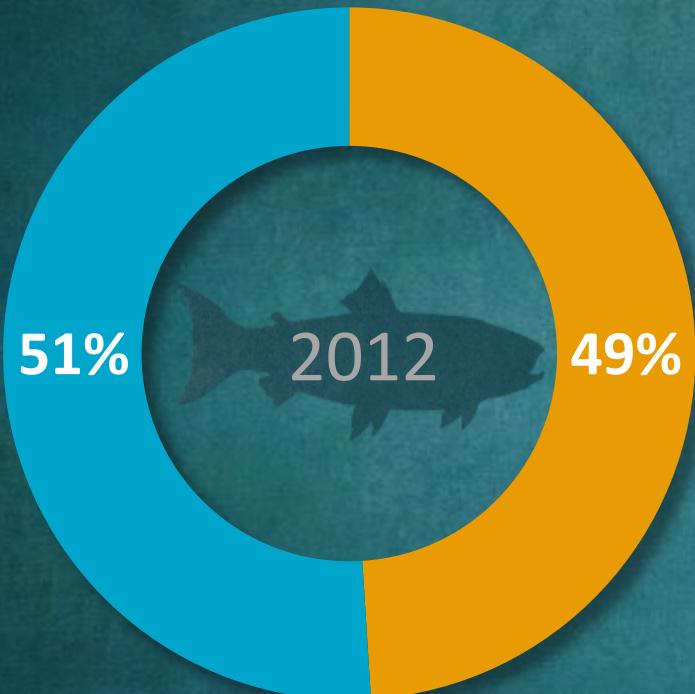
29.9%
over exploited



12.7%
not fully exploited

57.4%
fully exploited

Global seafood consumption, 2012 vs 2030

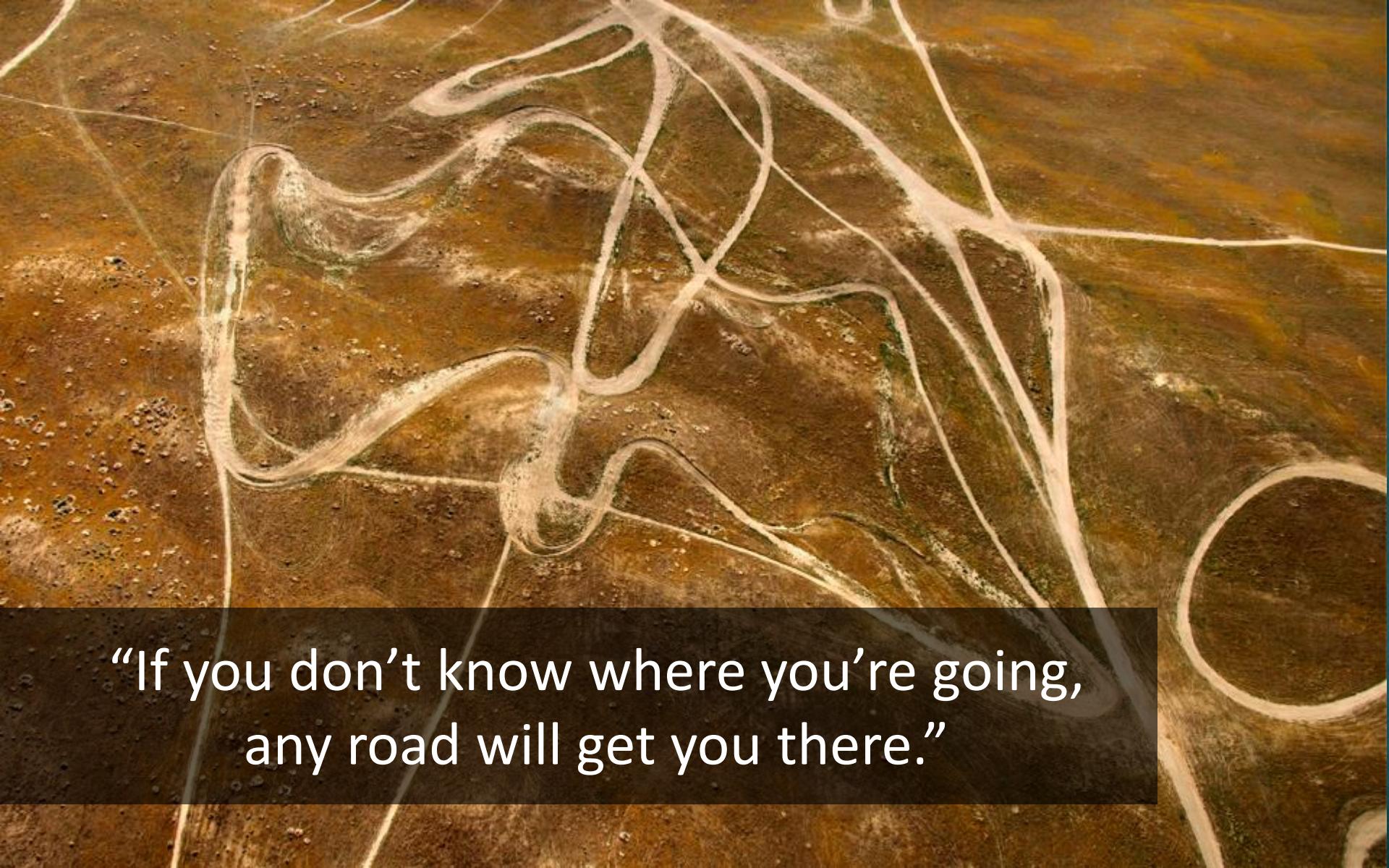


■ wild caught
■ aquaculture



How can we double seafood supply by 2050?

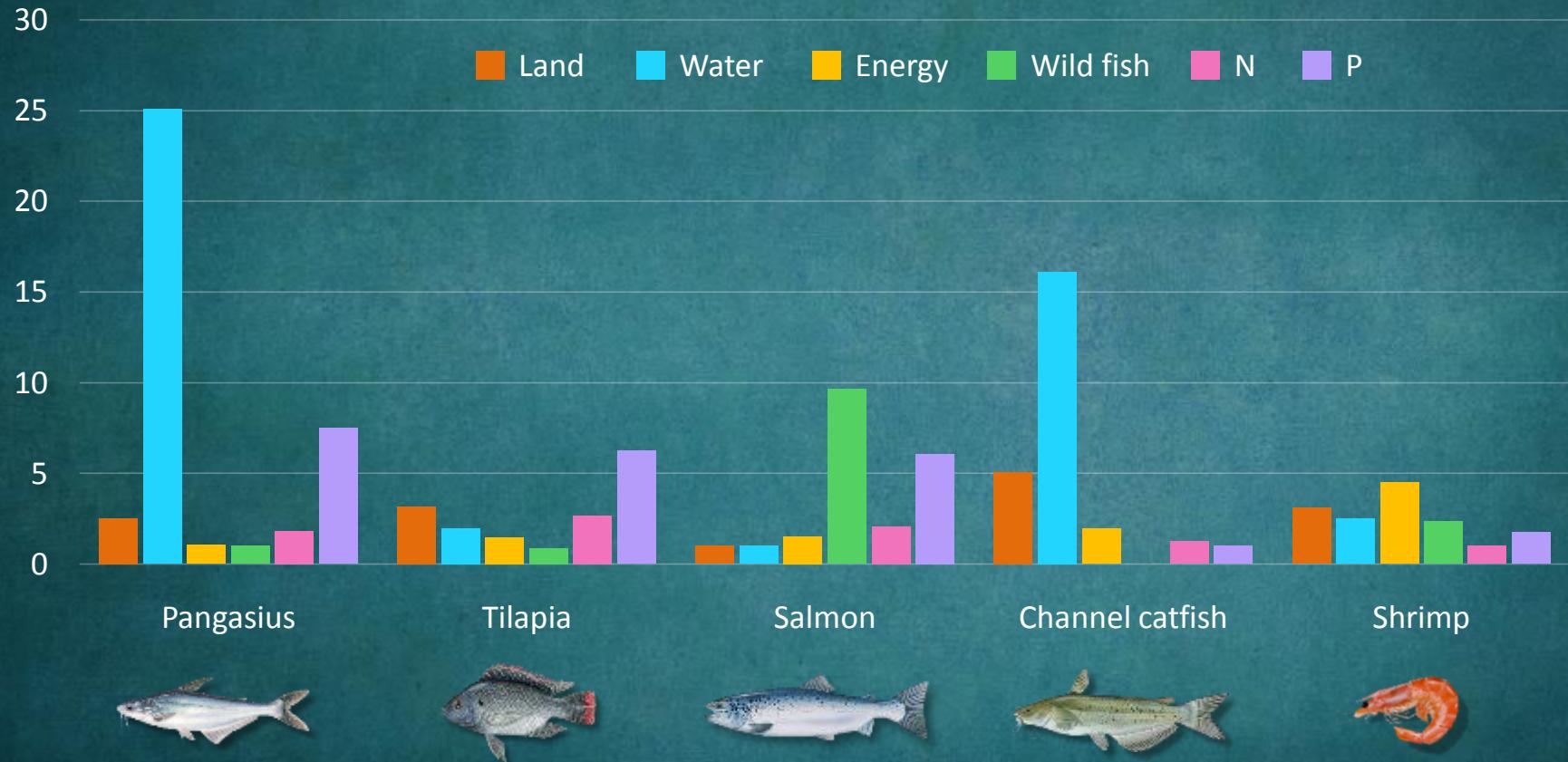
- 10-20 M MT from improved management
- 20-25M MT by reducing waste
- Aquaculture growth – must grow at >5% for next 16 years
- How to ensure this expansion is done responsibly?

An aerial photograph showing a dense, winding network of dirt roads in a dry, arid landscape. The roads are light-colored and crisscross across the dark, brownish ground, creating a complex web-like pattern. There are several larger, more defined loops and some smaller, intersecting paths. The terrain appears uneven with some darker spots and small puddles of water.

“If you don’t know where you’re going,
any road will get you there.”

Resource use compared by species

Based off 1 ton of production per species (whole wet weight)



Resource use for 1 MT of shrimp



N = natural production (no nutrients) FT = fertilization F = feeding FA = feeding & mechanical aeration BF = biofloc

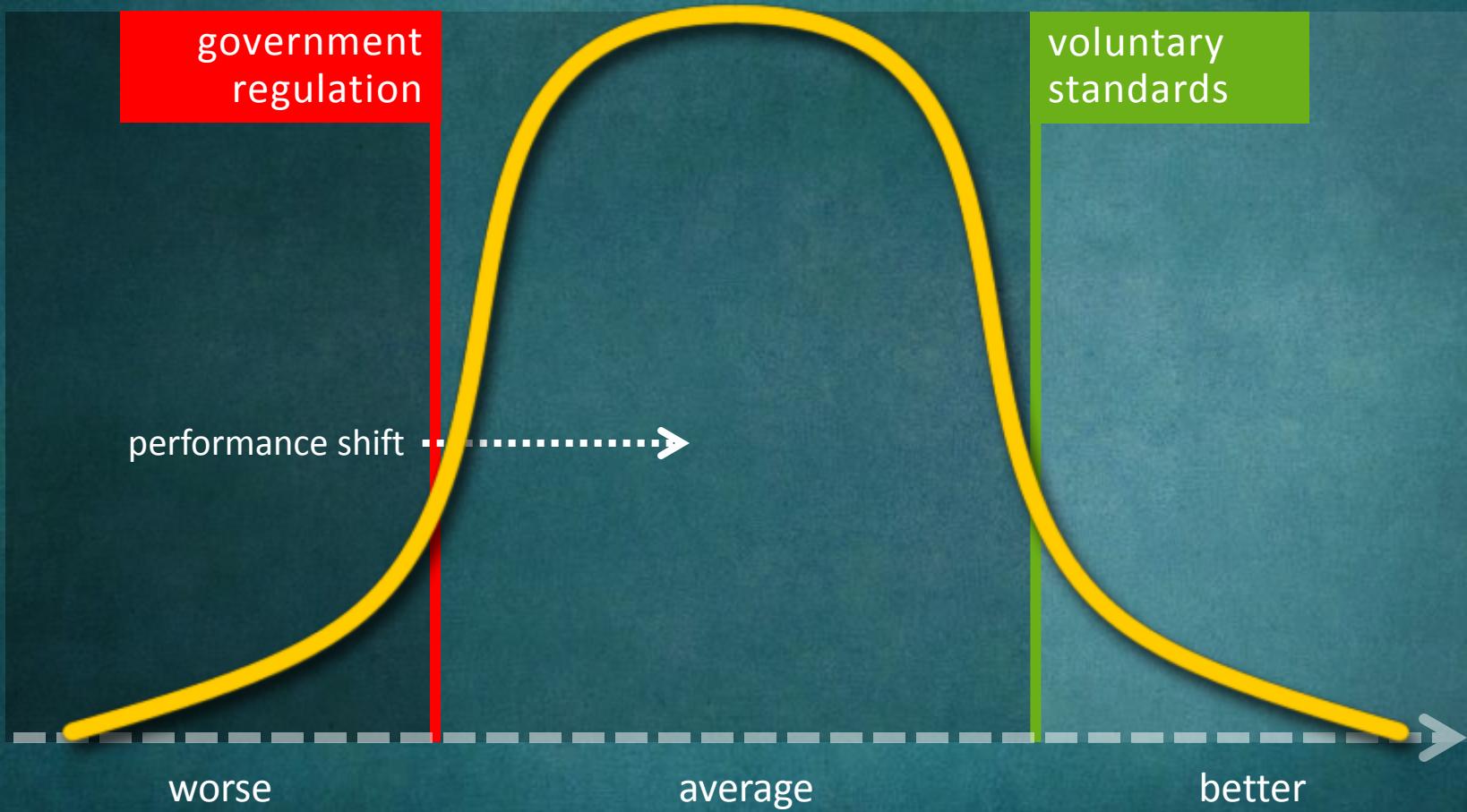
Source: Boyd and McNevin, 2015

Aquaculture Dialogues – Standards Development

- Lessons from Consortium on shrimp farming and the environment
- Voices were critical – multi-stakeholder platform
- Use stakeholders to identify the main impacts of production
- Gain agreement on the way to measure impacts
- Set threshold limits – standards
- Utilize markets – WWF can't be everywhere

Reward the best, or move the rest?

number of producers





- Independent, not-for-profit certification & labeling program
- Environmental/social/chain of custody
- Based on science & transparency
- ISEAL multi-stakeholder process for standards development AND implementation and governance
- Accredited 3rd party verification



Tilapia



Pangasius



Salmon



Bivalve



Trout



Shrimp



Abalone

Aquaculture Improvement Projects (AIPs)





WWF Seafood Sustainability

WWF Seafood Sustainability
A stepwise approach to sustainability.

Fishery Improvement Projects
 Aquaculture Improvements Projects

[VIEW ALL PROJECTS](#)



AQUACULTURE IMPROVEMENT PROJECTS



INDIAN SHRIMP



CHINESE TILAPIA



MALAGASY SHRIMP



CHILEAN SALMON



Implications in Brazil

- ASC certification key issues
 - Legal – environmental license.
 - Biodiversity and social assessments
 - Feed and marine ingredient traceability
 - Feed efficiency (FCR)
 - Wild fish efficiency (dependent on FCR)

As much as producers want independence, one producer can change the image of an entire industry





salmon **aquaculture**



The GSI—defining precompetitive behavior

- Open-source databases
- Resistance & disease treatments
- Sends signals for better inputs, e.g. fish oil substitute
- An industry in control of its future

moving sustainability from
niche to **norm**

on a finite planet,
should consumers
have a **choice**
about sustainable
products?

or should
all choices
be more sustainable?



Industry vs Environmentalists: how far apart are we?

Approximately 3.6 million tons of shrimp are produced using feed.

An overall global decrease in FCR by 0.1 would embody

- 106,000 hectares of land**
- 141,000,000 m³ of water**
- 468,000 tons of wild fish**
- 3.6 GJ of energy**

How much money would it save the producer?

Not so far...



x \$



x \$\$



x \$\$\$

LAND
WATER
ENERGY
WILD FISH
WETLANDS
FORESTS



The next big food issue— Illegality and IUU



- 5-50% of traded food not produced legally in country of origin
- 15-30% of traded seafood is IUU
- Resource rights and labor issues
- Fraud and corruption
- Feed, permits
- How will producers control their destiny?



think about it

ASC AND MARKETS



Fundado em 2010 pela **WWF** e **IDH** (Dutch Sustainable Trade Initiative) o **ASC** tem o objetivo de ser o líder mundial em certificação e rotulagem de pescado produzido de forma responsável.

ASC trabalha com os aquicultores, frigoríficos, varejistas, empresas de serviços de alimentação, acadêmicos, grupos conservacionistas e consumidores, para:

- Reconhecer e recompensar a aquicultura responsável através do Programa de Certificação de Aquicultura do ASC e de seus rótulos de pescado;
- Promover a melhor escolha ambiental e social na compra de pescado;
- Contribuir para a transformação do mercado de produtos da aquicultura em um modelo sustentável

CERTIFICAÇÃO DE PESCADO SUSTENTÁVEL

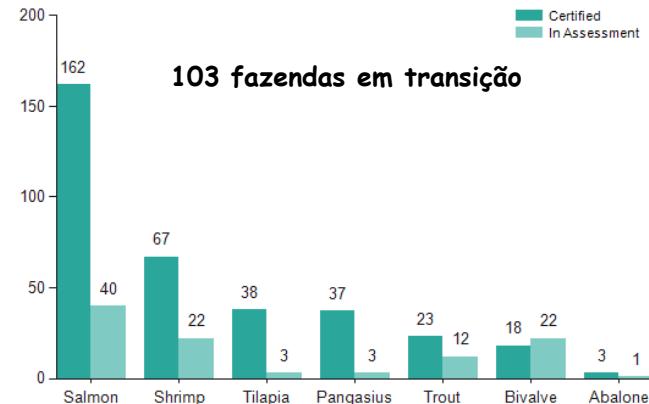
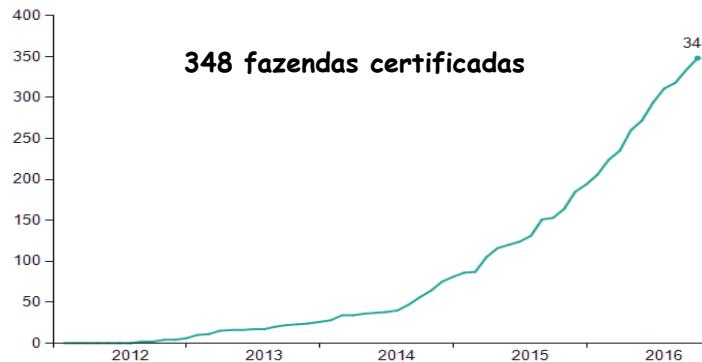
AS CERTIFICAÇÕES SURGIRAM EM RESPOSTA À CRESCENTE CONSCIENTIZAÇÃO DO CONSUMIDOR EM RELAÇÃO AOS IMPACTOS NEGATIVOS DAS ATIVIDADES DA PESCA E DA AQUICULTURA COM O OBJETIVO DE ESTIMULAR PRÁTICAS SUSTENTÁVEIS NAS REFERIDAS ATIVIDADES E PRESERVAR OU MELHORAR O ACESSO AOS MERCADOS CONSUMIDORES (WWF-2009).



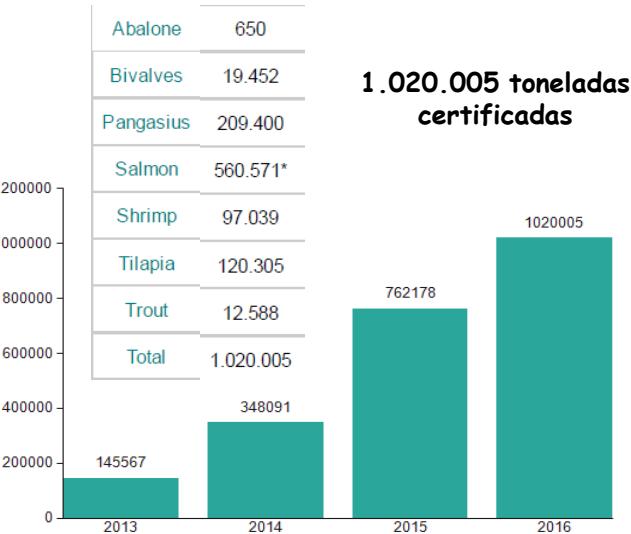
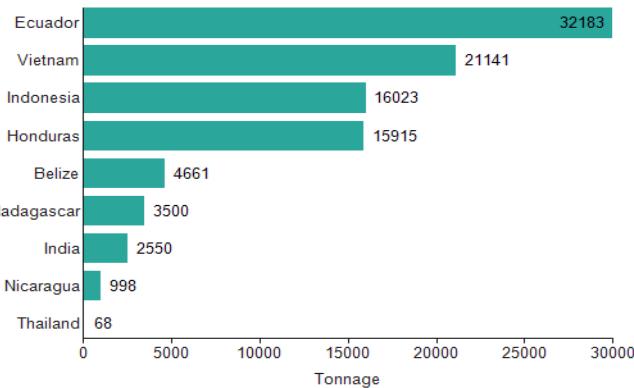
<http://www.asc-aqua.org>

TRANSFORMAR A AQUICULTURA EM UM PROCESSO
DE SUSTENTABILIDADE AMBIENTAL E
RESPONSABILIDADE SOCIAL UTILIZANDO
MECANISMOS DE MERCADO EFICIENTES QUE CRIAM
VALOR EM TODA A CADEIA.

AQUACULTURE STEWARDSHIP COUNCIL - ASC



Volume de camarão certificado produzido em 2016



MERCADO DE PESCADO CERTIFICADO

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business
Values-led business

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About this content

Clare Leschin-Hoar

Wednesday 11 May 2016 21.11 BST



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Reeling it in: global sustainable seafood market hits \$11.5bn

A new report shows that demand for seafood with sustainable certification now accounts for 14% of the global market – up from less than 1% a decade ago



The global sustainable seafood market is rapidly growing as consumers become increasingly aware of issues like overfishing and poor labor practices. Photograph: Dan Himbrechts/AP

6882 PRODUTOS APROVADOS

56 PAÍSES

**1051 CERTIFICADOS NA CADEIA DE
CUSTÓDIA**

PESCADO CERTIFICADO NO BRASIL



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Netuno vai fornecer tilápia para as Olimpíadas



03 Jun 2016 ASC, FAFS, Jogos Olímpicos, Netuno, Olimpíadas, sustentabilidade aquática, tilápia

Compartilhar

REVISTA EXAME

Brasil é o quarto maior mercado para produtos saudáveis

O Brasil acaba de se tornar o quarto maior mercado mundial de produtos considerados "saudáveis" — um nicho que, segundo especialistas, deverá sofrer menos com a crise

Por Aline Soherr, Ana Lailza Herzog
03 fev 2015, 09h00

HÁ DEMANDA DE CAMARÃO CERTIFICADO DO BRASIL NO MERCADO DE EXPORTAÇÃO.

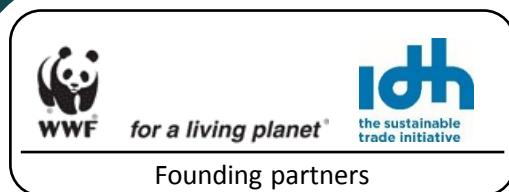
CERTIFICAÇÃO DE PESCADO SUSTENTÁVEL NO RIO DE JANEIRO



RESULTADOS ESPERADOS

- MUDANÇAS NAS PRÁTICAS DE PESCA E AQUICULTURA;
- AUMENTO DA CONSCIÊNCIA DO CONSUMIDOR E CONSEQUENTEMENTE, A DEMANDA POR PESCADO SUSTENTÁVEL CERTIFICADO;
- DESENVOLVIMENTO DE UMA CADEIA DE PESCADOS SUSTENTÁVEIS CERTIFICADOS NO ESTADO DO RIO DE JANEIRO, LIGANDO OS PRODUTORES AO MERCADO.

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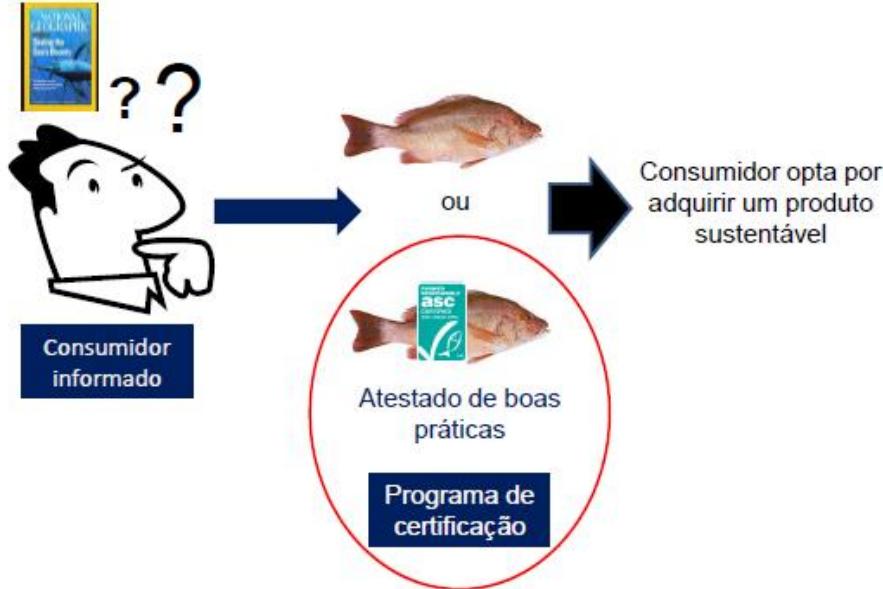


BY APPOINTMENT TO THE ROYAL DANISH COURT
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come from
Sysco[™]

nutreco

Obrigada!



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