

# Why we need to get it right!

The case of the Aquaculture Dialogues

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Jose R Villalon  
Vice-President  
Market Transformation - Aquaculture



# なぜ養殖なのか？

Why is aquaculture important?

- スーパーに並ぶ海産物の約半数は養殖もの  
Almost half of the seafood on your grocer's shelf came from a farm
- FAOによると、養殖は世界の食産業の中でも急成長著しい分野  
FAO states that it is the fastest growing food sector industry in the world
- 養殖はここ15年間で年率9%の成長を示している  
Aquaculture has been growing 9% annually for the past 15-years

**It's big and it's here to stay!**

# 養殖をとりまく現況

What's the case for aquaculture?

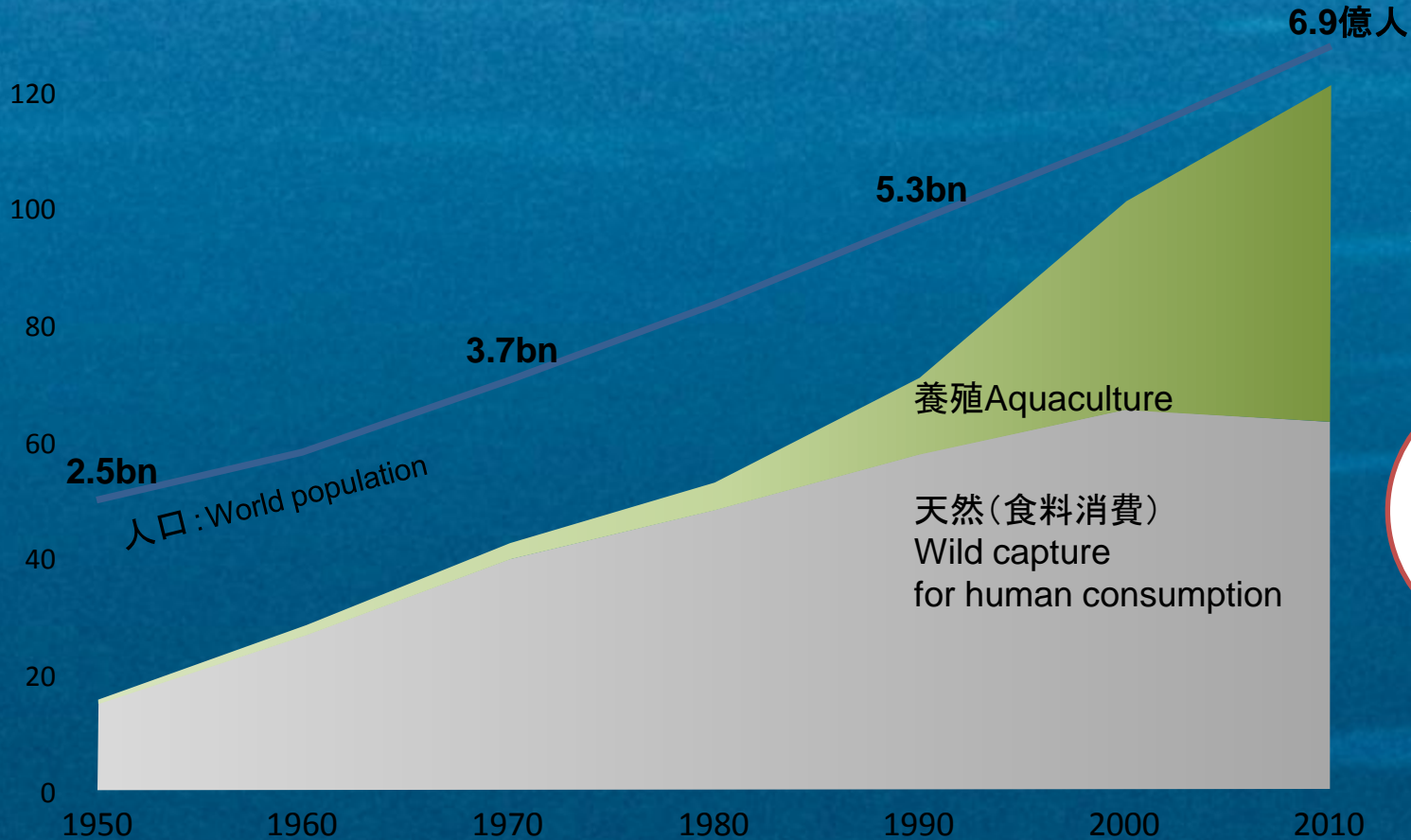


- 世界の人口は2050年までに35%、2億人が増加する  
World's population to increase by 35% by 2050 – an additional 2 billion more inhabitants
- 人はより豊かな暮らしを求めてきた  
Population poised to be increasingly more affluent
- 食の安全は、私たちの子供、暮らしにとって重要な課題である  
Food security will be a significant issue for our children – in our lifetime
- FAOによると、養殖は需要を満たすため、2050年までに倍増する必要がある  
FAO predicts aquaculture will need to double output by 2050 to meet demand

# 水産業の変革

## The blue revolution

百万トン  
Mill.tons  
140



養殖:  
過去30年で年率  
8.7%の成長  
Aquaculture:  
Annual growth of  
8.7 % per year for the  
past 30 years

養殖は最も  
急成長を示す  
食産業の一つ  
Aquaculture  
is one of the fastest  
growing food  
sectors

# WWFが養殖に取り組む理由

So why WWF and aquaculture?

- 養殖に関して25基準が存在する  
There were over 25 aquaculture standards
- 定量的に測定可能で、透明性があり、多数の利害関係者の参画により作られたものはない  
None were measurable, transparent, or developed with multi-stakeholder participation
- その多くはWWFの関与のもと改善することを拒んだ  
Most refused to engage with WWF to lead/assist in reform

## 養殖管理検討会の誕生

Birth to the Aquaculture Dialogues



# WWFは多くの基準策定の実績があります

WWF has expertise to create standards

- Rainforest Marketing – 1980s
- 森林管理協議会 Forest Stewardship Council – 1990s
- 海洋管理協議会 Marine Stewardship Council – 1990s
- Marine Aquarium Council – 1990s
- プロテクトハーベスト Protected Harvest – 2000
- クライメイトセイバーズ Climate Savers - 2000s
- New Program for IT Industry – 2007
- 養殖管理検討会 Aquaculture Dialogues – 2000s



# パートナー Partners

- David Suzuki Foundation
- Coastal Alliance for Aquaculture Reform
- Monterey Bay Aquarium
- FishWise
- FishChoice
- Sustainable Fisheries Partners
- New England Aquarium
- 世界自然保護基金World Wildlife Fund
- Terram
- Environmental Defense Fund
- Marine Conservation Society
- Oxfam Novib
- 国際自然保護連合IUCN
- Social Accountability International
- ピュー環境グループPew Environmental Group
- North Sea Foundation
- Marine Harvest Group
- Regal Springs Group
- RainForest Aquaculture
- Aquamar
- AquaStar
- Unima
- OSO
- Anova
- Birds Eye Igloo
- Skretting
- BioMar
- Cargill
- Salmon Chile
- Canadian Aquaculture Industry Alliance
- Grupo Tres Mares
- Leamon

# 養殖がもたらす影響

Aquaculture does have its' impacts

- 生息地の転換 Habitat conversion
- 外来種の野生化 Escape of exotics
- 抗生物質、化学物質の使用 Antibiotic & chemical use
- 海底の生物多様性 Benthic biodiversity
  - 給餌管理 Feed management
- 社会と労働問題 Social & labor

責任をもって管理されれば、養殖の天然魚、海洋環境、水質に与える影響は最小限に抑えられる

When done responsibly, aquaculture's impact on wild fish populations, marine habitats and water quality is minimal.



# 基準“スタンダード”の策定方法

How do we define “standard?”

	定義 Definition	非科学的事例 Non-scientific example	科学的事例 Scientific example
影響 Impact	最小化したい課題 The problem we want to minimize	肥満 Overweight	水質 Water pollution
原則 Principle	影響に対処する指針となる原則 The guiding principle for addressing the impact	健康的な体重の維持 Maintain a healthy weight	天然資源の保全・保護 Conserve and protect natural resources
判定基準 Criteria	影響に対処するための着目点 The area to focus on to address the impact	食糧消費 Food consumption	排水 Effluents
指標 Indicator	影響の程度を決めるために測定するもの What to measure in order to determine the extent of the impact	摂取カロリー Calories	排水中の窒素濃度 Nitrogen concentration in the effluent
基準 Standard	影響を最小化するための達成水準 The number and/or performance level to reach to determine if the impact is being minimized	10cal/lbs未満 < 10 calories/pound of body weight/day	排水中の全窒素4mg/l 4 mg/L total nitrogen in effluent

# 2004年からの進捗

That was in 2004; this is now...

ダイアログ Dialogue	期間 Duration	参加者 Approximate participants	環境基準% % Stds environment	社会基準% % Stds social
ティラピア Tilapia	5 years	200	65.0%	35.0%
パンガシウス Pangasius	3 years	638	88.5%	11.5%
二枚貝 Bivalves	3 years	300	78.0%	22.0%
アワビ Abalone	2 years	100	74.0%	26.0%
エビ Shrimp	4.5 years	400	55.0%	45.0%
マス Trout	3.5 years	200	76.0%	24.0%
サケ Salmon	8 years	500	74.0%	26.0%
ブリ・スギ Seriola & Cobia	-	-	-	-
	<b>Avg = 4 years</b>	<b>Total = 2,338</b>		

# 養殖エビの事例

Let's talk farmed shrimp...

- 世界の年間エビ取引量690万トン中、**380万トン(55%)**は養殖  
There are 6.9 million tons of shrimp traded globally every year – **3.8 million** is farmed (55%)

## 主な影響 3 major impacts?

- 湿地の開発 – **マングローブ**  
Wetland conversion – **Mangroves**
- 魚粉への依存 – **小型魚**  
Dependency on fishmeal – **Small pelagics**
- 地域社会への影響 – **貧困の緩和**  
Social community impacts – **Poverty alleviation**

# 養殖サケの事例

Let's talk farmed salmon...

- 世界の年間サケ取引量340万トンの中、**240万トン(70%)**は養殖  
There are 3.4 million tons of salmon traded globally every year – **2.4 million** is farmed (70%)

## 主な影響 3 major impacts?

- 野生個体群への病気の伝搬  
Disease transmission to wild populations
- 魚粉への依存 – **小型魚**  
Dependency on fishmeal – **Small pelagics**
- 逃げだしによる野生個体の遺伝子かく乱と野生化  
Escapes lead to risk around genetic interaction with wild species or establishment of non-native species

# ASCの誕生

## Birth of the ASC

- 2009年12月に発足  
Was launched in Dec. 2009
- オランダに独立した事務所  
Is an independent entity based in Holland
- WWFおよびIDHによる共同設立  
Was co-founded by WWF and IDH
- FSCとMSCのステップを参照  
Follows in the FSC and MSC footsteps
- 認証を通じて養殖を正しい道へ！  
Is tasked with certifying those operations that  
**GOT IT RIGHT!**



Aquaculture  
Stewardship  
Council

[Home](#) | [About the ASC](#) | [Species and Planning](#) | [Certification](#) | [ASC](#)

The ASC's mission is to transform aquaculture towards environmental and social sustainability using efficient market mechanisms which create value across the chain.



Responsible aquaculture



About the ASC

➤ [Mission and vision](#)

➤ [Partners and Supporters](#)



➤ [Download](#)

➤ [Download](#)

## Species

➤ [Tilapia](#)



## Update

24|04|2012

Today the Aquaculture Stewardship Council (ASC) has announced its accreditation for the first time. This will allow the industry to be certified by the industry.

# ASCのガバナンス

ASC governance

- 監査委員会（現在5名）  
Supervisory Board (5-current members; 9-allowed)
- 執行委員会（5名） Executive Board (5-members)
- 技術助言グループ(16名)  
Technical Advisory Group (TAG) (16-members)
  - 技術作業部会 Technical Working Groups (TWG) (various)
- ステークホルダー助言グループ  
Stakeholder Advisory Group (SAG) (various)

# ASCのガバナンス

ASC governance



- 監査委員会 Supervisory Board:

Jose Villalon (議長 Chairman)

Peter Hajipieris

Hank Cauley

Ted van der Put

Knut Nesse

- 執行委員会 Executive Board:

Chris Ninnes (CEO)

# ASCの進捗状況

## ASC is progressing

- 2012年6月、サケ類養殖管理協議会は基準と監査マニュアルをASCに正式に委譲  
In June 2012, the Salmon Aquaculture Dialogue formally handed over the Standards and the Auditor Manual to the ASC
- 2012年8月、ドイツとオランダで、ASCラベルを添付したASC認証を取得したティラピアが販売開始  
ASC launched certified tilapia, with the ASC consumer facing logo, in German and Dutch retail markets August 20, 2012.
- ASC-CoC認証を20社が取得。認証製品が流通始めると急速に拡大する見込み。  
既存のMSC-CoC認証取得済みの企業は、認証対象をASC製品にも容易に拡大可能  
20 companies have achieved certification against the ASC Chain of Custody (COC) standard. This will increase rapidly as product starts to flow and it becomes more broadly known that existing MSC COC certified companies can easily extend their existing certificates to cover ASC product.

The screenshot displays the ASC (Aquaculture Stewardship Council) website. At the top, the ASC logo is followed by the text "Aquaculture Stewardship Council". Below this is a navigation menu with links for "Home", "About the ASC", "Species and Planning", "Certification", and "ASC". A main banner features the text: "The ASC's mission is to transform aquaculture towards environmental and social sustainability using efficient market mechanisms which create value across the chain." To the right of this text is a close-up image of a yellow fish. Below the banner is a section titled "Responsible aquaculture".

Below the banner, there are two columns of content. The left column has a header "About the ASC" and two links: "Mission and vision" and "Partners and Supporters". The right column has a header "Updates" and a link "Download".

At the bottom, there is a section titled "Species" with a link "Tilapia" and an image of several pinkish-orange fish. To the right of this is another "Updates" section with the date "24|04|2012" and the text: "Today the Aqua... its accreditation... this will allow th... done by the ind..."



# ASCの進捗状況

## ASC is progressing

- ティラピアとパンガシウス(ナマズ類)で、13のロゴライセンスが調印、ロゴマークを使った製品が作られている  
13 logo licenses have been signed and packaging using the ASC logo has been developed for both Tilapia and Pangasius.
- マレーシア、インドネシア、エクアドルの10のティラピア養殖場が、6月から10月の間で監査待ちとなっている  
Ten additional tilapia farms in Malaysia, Indonesia and Ecuador have scheduled pending audits for their farms during the month of June through October.
- ベトナムの2つのパンガシウス養殖場が、9-10月に監査を受け認証された。さらに24のパンガシウス養殖場が、次の2~8か月の間にASC認証取得にむけて契約を交わした

Two pangasius farms in Vietnam were audited and certified Sept/Oct. An additional 24 pangasius farms have signed contracts committing to ASC certification in the next 2-8 months

- エビとサケ類の監査マニュアルが11月中に完成予定。基準と監査マニュアルをASCに委譲する前に、エクアドルとベリーズ、ベトナムの複数の養殖場で実証実験を予定

Shrimp and Trout Auditor Manuals should be complete by end of November and we plan on field-testing the ShAD standards on several farms in Ecuador, Belize and Vietnam before the Standards and the Auditor Manuals are handed over to the ASC.



Aquaculture  
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Home | About the ASC | Species and Planning | Certification | ASC

The ASC's mission is to transform aquaculture towards environmental and social sustainability using efficient market mechanisms which create value across the chain.



Responsible aquaculture



About the ASC

- Mission and vision
- Partners and Supporters



- Download
- Download

## Species

➤ Tilapia



## Update

24/04/2012

Today the Aquaculture Stewardship Council (ASC) announced its accreditation of the Shrimp and Trout Auditor Manual (ShAD) standards. This will allow for the first time that the standards are done by the industry.

# 何をすべきなのか

What should you do?



ASCラベルがついた養殖製品を購入してください Buy farmed seafood that has this logo:



MSCラベルがついた天然水産物を購入してください Buy wild seafood that has this logo:



