

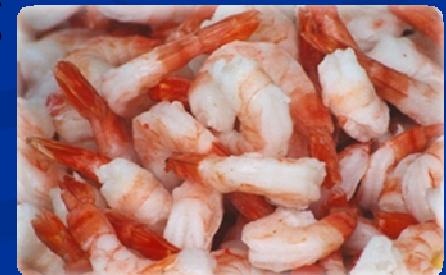
Thailand Experience on Aquaculture Certification



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Thailand's Seafood Industry

- Thailand is one of the leading countries in the world in terms of seafood production and fish trade
- Tuna, Shrimp and Tilapia are major fishery products for export
- Shrimp: 85% export; 15% domestic consumption
- Tilapia: 15% export; 85% local consumption
- Tuna raw materials imported in quantity of 800,000 MT per year for processing and export, having **Catch Certificates** especially when export to the European Market



Thai Seafood Production and Export in 2011

Production: 1,049,160 MT

Export: 1,974,553 MT valued at 7.3 billion USD per year



41.9%



28.4%



9.3%

Production (2011)

Q	569,350 MT	787,089 MT	422,980 MT (aqua)
Export (2011)			
Q	388,376 MT	604,742 MT	338,073 MT
V	3.58 B US \$	2.36 B US \$	0.20B US \$

■ Cephalopods ■ Mollusks ■ Others

Thai Seafood Production and Export in 2012

Production: 1,195,860 MT

Export: 1,908,099 MT valued at 8.8 billion USD per year



36.06%



30.52%



9.53%

Production (2012)

Q	473,230 MT	712,239 MT	422,980 MT (aqua)
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Export (2012)

Q	348,390 MT	548,667 MT	376,207 MT
V	3.2 B US \$	2.7 B US \$	0.840 B US \$

■ **Cephalopods** ■ **Mollusks** ■ **Others**

Thailand Aquaculture

- Aquaculture plays an important role in Thailand in economic development and poverty alleviation.
- 80-90 percent of Thai aquaculture operators are small scale farmers
- There are more than 540,000 freshwater aquaculture farms of which 80 percent are small scale while 20 percent are medium and large farms.
- Shrimp culture is the main operation in coastal aquaculture having 29,000 farms; 85 percent are small scale ones.

An Example Case of Aquaculture Certification Scheme: Thai Quality Shrimp Program

National Program for Thai Quality Shrimp

**Code of Conduct
(CoC)**

• **1997 –Present**

**Good Aquaculture
Practice (GAP)**

• **2000 – Present**

**Good Aquaculture
Practice: GAP-7401
(GAP-TAS-7401)**

• **2009 - Present**

Thai Shrimp Culture Certification Scheme Development

- 1998: CoC (Code of Conduct) standard developed by Thai DOF
- 2000: GAP (Good Aquaculture Practice) standard developed by Thai DOF
- 2001: Farm certification system development under Thai-French Cooperation

Thai Shrimp Culture Certification Scheme Development (cont')

- 2002: Started Implementation of national culture shrimp certification program
- 2007-9: Developed Certification System: ISO/IEC Guide 65 by Thai DOF
- 2008-9: Developed TAS-7401 or GAP-7401 standard by ACFS

Thai Shrimp Culture Certification Scheme Development (cont')

- 2009-11: Developed cluster farm management and certification under DOF-FAO cooperation program
- 2011: Benchmarking of Thai National Shrimp Certification Scheme to FAO Aquaculture Certification Guidelines
- 2012: ADCC/DOF as a national CB for farm certification being ISO/IEC Guide 65 accredited

What is “GAP & CoC” Shrimp?



- Food Safety and Quality
- Environmentally friendly
- Social responsibility
- Animal Health and Welfare
- Traceability

GAP and CoC Guidelines: Farm and Hatchery

- Location, Property Right and Registration
- Farm/Hatchery Management
- Drugs and Chemicals Use
- Effluent and Sludge Management
- Electricity and Fuel Use
- Environmental Management



GAP and CoC Guidelines: Farm and Hatchery (Cont')

- Management of Farm/Hatchery Sanitary
- Shrimp Harvesting
- Employee and Worker Welfare
- Social Responsibility
- Data Collection
- Traceability



A Transition from CoC/GAP to GAP-7401

Why transition happened!!

- Development of FAO Aquaculture Certification Guidelines– a turning point!!
- In 2007, FAO was requested by the 3rd Sub-Committee on Aquaculture to convene expert consultations to develop guidelines on aquaculture certification
- Taken 4 years to develop guidelines through six expert consultations
- Gone through consideration by the 4th Sub-com on Aquaculture
- Technical Consultation at FAO Headquater, Rome
- Adopted by the 5th Sub-com on Aquaculture and endorsed by the 29th Committee on Fisheries





FAO Aquaculture Certification Guidelines

■ Aquaculture Certification Guidelines cover:

➔ Four minimum substantive criteria

- a) animal health and welfare
- b) food safety
- c) environmental integrity
- d) socio-economic aspects

■ Institutional and procedural requirements:

- i) standard setting
- ii) accreditation
- iii) certification





TAS or GAP-7401 for Shrimp Farm Development

- Developed and issued for implementation since 2009 by National Bureau of Agricultural Commodity and Food Standards (ACFS)
- Standard requirements corresponding to each minimum substantive criteria of FAO Aquaculture Certification Guidelines





Thai National Shrimp GAP-7401 Requirements in accordance with FAO minimum substantive criteria

FAO Criteria	Thai National Shrimp GAP Requirements
1. Animal health and welfare	<ul style="list-style-type: none">1. Farm management2. Use of veterinary drugs, chemicals, hazardous substances and probiotics used in aquaculture3. Labor and welfare4. Social and environmental responsibilities
2. Food safety	<ul style="list-style-type: none">1. Farm site and registration2. Farm management3. Use of veterinary drugs, chemicals, hazardous substances and probiotics used in aquaculture4. Farm sanitation5. Harvest and post harvest handlings prior to distribution6. Social and environmental responsibilities7. Record keeping



Thai National Shrimp GAP-7401 Requirements in accordance with FAO minimum substantive criteria (Cont')

FAO Criteria	Thai National Shrimp GAP Requirements
3. Environmental integrity	<ul style="list-style-type: none">1. Farm site and registration2. Farm management3. Use of veterinary drugs, chemicals, hazardous substances and probiotics used in aquaculture4. Effluent and sediment management5. Energy source and fuel6. Farm sanitation
4. Socio-economic aspects	<ul style="list-style-type: none">1. Labor and welfare2. Social responsibility

Comparison Among GAP, CoC and GAP- 7401 Standards According to Concerned Issues

Concerned Issues	GAP	CoC	GAP-TAS 7401
■ Food Safety	★★★★	★★★★	★★★★
■ Environmental Friendly	★★	★★★★	★★★★
■ Social Responsibility	★★	★★★★	★★★★
■ Animal Health and Welfare	★★★★	★★★★	★★★★
■ Traceability	★★★★	★★★★	★★★★
Criteria of compliance	45	53	56

★★★★★ = Fully (100 %) concerned
 ★★ = Minimum requirement



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→ Institutional and procedural requirements:

- i) standard setting
- ii) accreditation
- iii) certification



FAO Aquaculture Certification Guidelines (cont')

- Institutional and procedural requirements:
 - i) **standard setting**: covering the tasks of developing, monitoring, assessing , reviewing and revising standard
 - ii) **accreditation**: an independent assessment of the competence of the certification body
 - iii) **certification**: procedure that body/entity gives written or equivalent assurance that aquaculture operation conforms the aquaculture certification standards.



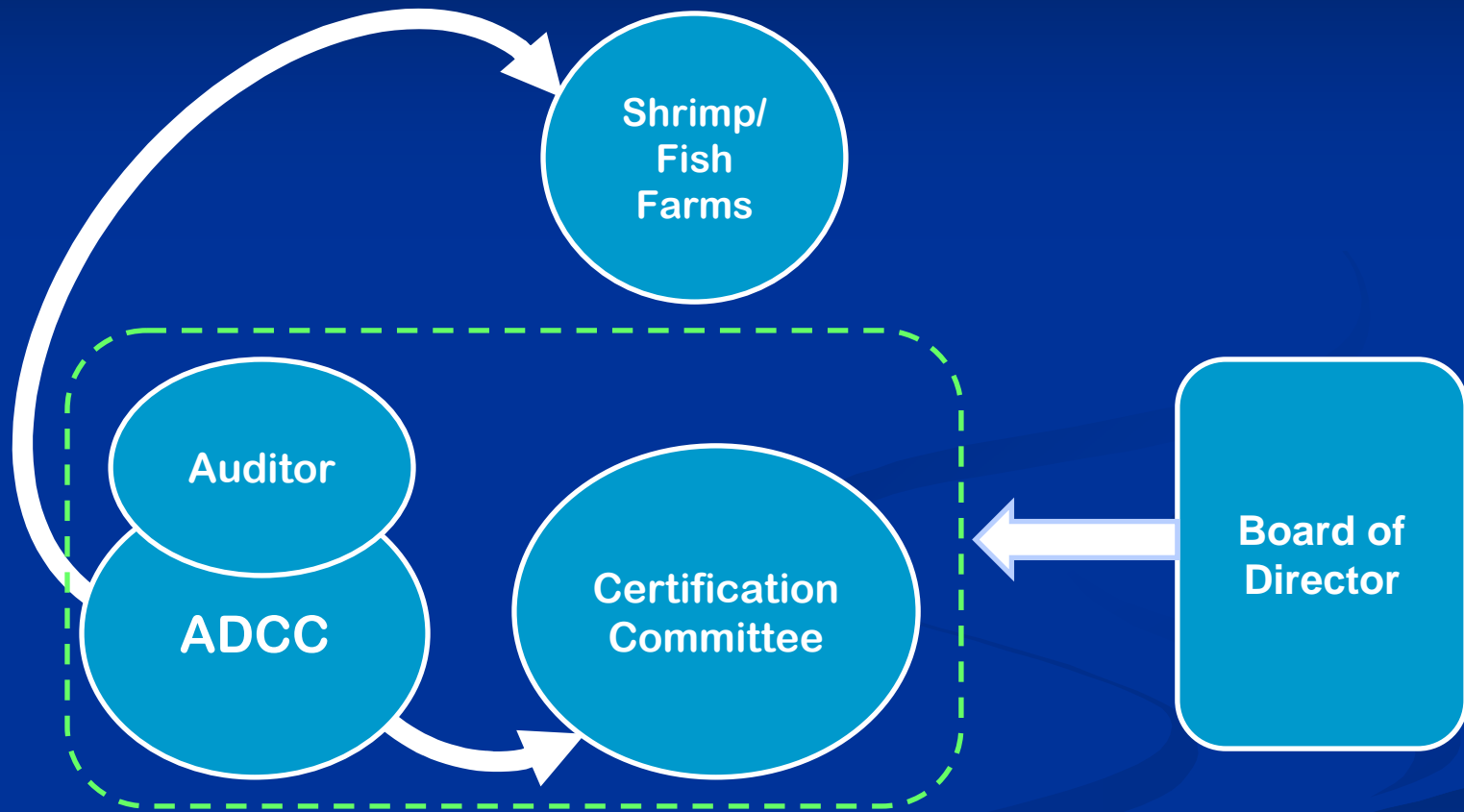
Thailand Steps in Compliance with FAO Aquaculture Certification Guidelines

- **Standard setting** GAP/TAS 7401 developed by National Bureau of Agriculture Commodity and Food Standards (ACFS) based on international standards especially WTO principles in transparency manner
- **Accreditation system** developed by ACFS based on ISO/IEC 17011 on conformity assessment

Thailand Steps in Compliance with FAO Aquaculture Certification Guidelines

- **Certification** Aquaculture Development and Certification Center (ADCC) of Department of Fisheries (DOF) being responsible for certification of culture fish and shrimp production adopting ISO/IEC Guide 65 as basis for its certification and management and being accredited by ACFS since September 2012

Certification Scheme Operated under ISO/IEC Guide 65



Non-discrimination

Independence

Impartiality

Transparency

Benchmarking of the Thai Shrimp National Certification Scheme against FAO Aquaculture Certification Guidelines

Benchmarking of the Thai Shrimp National Certification Scheme against FAO Aquaculture Certification Guidelines

- **To establish an equivalence and conformity between the Thai National Shrimp Certification Scheme with the FAO Aquaculture Certification Guidelines**

FAO Aquaculture Certification Guidelines

- **Four minimum substantive criteria:**
 - a) animal health and welfare
 - b) food safety
 - c) environmental integrity
 - d) socio-economic aspects
- **Institutional and Procedural requirements:**
 - i) standard setting
 - ii) accreditation
 - iii) certification

Thai National Shrimp Certification Scheme: Requirements of GAP- 7401

- Food Safety
- Environmental Integrity
- Animal Health and Welfare
- Socio-economic Aspects



Benchmarking Results:

Minimum Substantive Criteria of the Thai National Shrimp GAP against the FAO Aquaculture Certification Guidelines

Criteria	Critical level		Major level	
	FAO	Thai	FAO	Thai
Animal Health and Welfare	4	4	3	3
Food Safety	5	4 + 1 na	4	4
Environmental Integrity	4	4	5	3 + 1 na
Socio-economic Aspects	3	3	-	-
Total	16	15 (+ 1 na)	12	10 (+1 na)
Level of Compliance		100 % Compliance		91% Compliance

Thai National Shrimp Certification Scheme:

Institutional and Procedural Requirements (1)

- **Standard setting** GAP/TAS 7401 developed by National Bureau of Agriculture Commodity and Food Standards (ACFS) based on international standards especially WTO principles in transparency manner
- Aspects concerned on **standard setting**: transparency, participation by interested parties, content and comparable system, notification provisions, keeping records, validation of standard

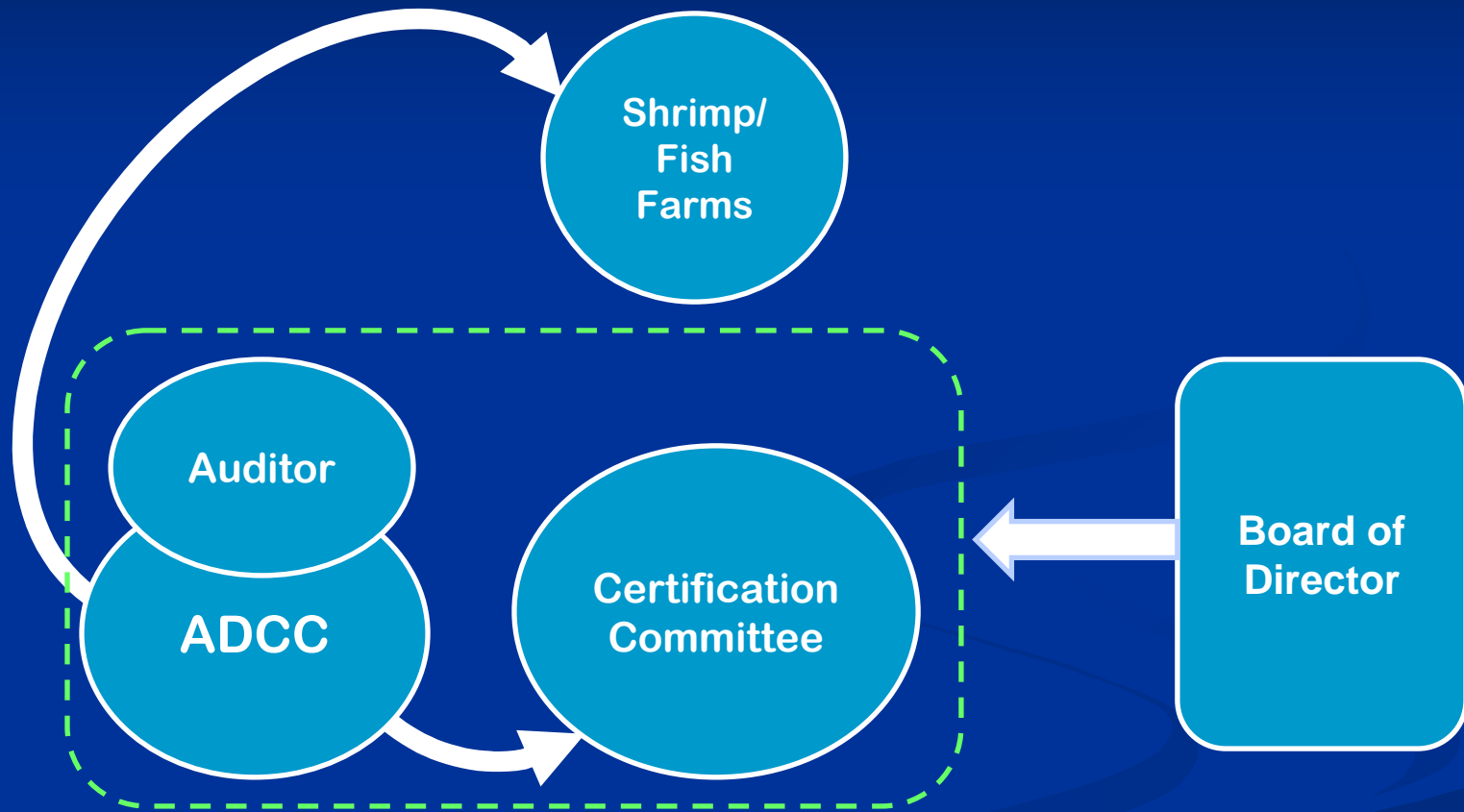
Thai National Shrimp Certification Scheme: Institutional and Procedural Requirements (2)

- **Accreditation system** developed by ACFS based on ISO/IEC 17011 on conformity assessment
- Aspects concerned on **accreditation e.g.** non-discrimination; independence, impartiality and transparency; human and financial resources, accountability and reporting, confidentiality, resolution of complaints concerning accreditation of certifying bodies etc.

Thai National Shrimp Certification Scheme: Institutional and Procedural Requirements

- **Certification** Aquaculture Development and Certification Center (ADCC) of Department of Fisheries (DOF) being responsible for certification of culture fish and shrimp production adopting ISO/IEC Guide 65 as basis for its certification and management and being accredited by ACFS since September 2012

Certification Scheme Operated under ISO/IEC Guide 65



Non-discrimination

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Benchmarking Results:
Institutional and Procedural Requirements of the Thai National
Shrimp Certification Scheme against the FAO Aquaculture
Certification Guidelines

Requirements/criteria	Critical level		Major level	
	FAO	Thai	FAO	Thai
1. Standard setting	11	11	4	4
2. Accreditation	15	15	20	20
3. Certification	22	22	20	19 + (1 na)
Total	48	47 + (1 na)	44	43 + (1 na)
Levels of Compliance		100% Compliance		98% Compliance

Benchmarking Results

- Benchmarking showed the **compliance** of the Thai National Shrimp Certification Scheme with the FAO Aquaculture Certification Guidelines covering 4 minimum substantive criteria, standard setting, accreditation and certification

Cluster Farm Certification

Why Cluster Farm Certification: A Solution for Small Scale Producers

- Strengthen small scale producers: sharing experiences, resources, management
- Facilitate market access: stable and large volume supply, quality, traceability
- Enable access to certification scheme

Cluster Farm Certification Challenges for Thai Aquaculture

Cluster Farm could:

- Improve Market Access & price of product e.g. stable supply with large volume, traceability, certification
- Improve Efficiency of Production e.g. internal control towards cluster farm management
- Improve Access to Services e.g. credit/loan, feed, diesel



Thailand Certified Cluster Farms

Two Cluster Shrimp farms:

Kung Kraben Shrimp Aqua-Farm Group –23 shrimp farmers, GAP-7401 certified

Sikao Shrimp Aquaculture Group –20 shrimp farmers, GAP-7401 certified

Expanding for 6 cluster farm in 4 provinces covering 170 farms

Two Cluster Fish (Tilapia) Farms :

Bang Huk Aquaculture Group- 16 farmers, GAP certified

Ban Laem Cluster - 43 farmers, GAP certified





ASEAN Shrimp GAP: Thailand Experience Contributed to ASEAN (1)

- Establishment of **ASEAN Shrimp Alliance** since 2007 having Thailand as a lead country serving as chairman and secretariat
- ASEAN Shrimp standard namely **ASEAN Shrimp GAP** was developed under ASEAN Shrimp Alliance by Regional Working Group since 2009 based on FAO Aquaculture Certification Guidelines



ASEAN Shrimp GAP: Thailand Experience Contributed to ASEAN (2)

- **ASEAN Shrimp GAP** was endorsed by ASEAN Sectoral Working Group on Fisheries and ASEAN Minister on Agriculture and Forestry (AMAF)

Next step--Is Benchmarking an answer?(1)

- Due to number of public and private standards/certification **“Is Benchmarking” or Conformity Assessment is a solution for aquaculture in Asia**
- Thailand conducted preliminary benchmarking against Guidelines since 2011
- In Dec 2012, FAO conducted Expert consultation to develop an **evaluation framework to assess conformity of public and private certification scheme** with the aquaculture certification guidelines.

Next step—Is Benchmarking an answer? (2)

- **Draft evaluation framework on conformity assessment will be discussed during the 6th Sub-Committee on Aquaculture in 2013**
- **Hoped that the Evaluation Framework will be transparent and useful tool for the assessment in global aquaculture industry—both public and private**
- **Will help avoid confusion in global aquaculture society and to ensure not to have barrier to trade especially to major producers in Asia!!**

Thank you for your
kind attention...

