Thailand Experiences in Aquaculture Certification

Department of Fisheries
March 27, 2007
Fisheries Production in 1985-2004

Quantity (x1,000 ton)

Year

1985 1987 1989 1991 1993 1995 1997 1999 2001 2003

Capture

Aquaculture
Shrimp Aquaculture Production

Production (x1,000 ton)

Beginning of Intensive Shrimp culture

Year

Strategic Analysis on Shrimp Aquaculture Industry of Thailand in 1998 (Supported by World Bank)

**Strengths:**
- Productivity 2 - 300,000 ton/yr
- Production area 70,000 ha
- 25,000 small scale farmers
- 300 Processing plants

**Weaknesses:**
- Environmental deterioration
- Environmental conflicts
- Risky in food safety issues

Shrimp aquaculture sustainable concept

- Food Safety
- Social Responsibility
- Environmental-Friendly
Development of policy, framework and public hearing

1. Environmental protection
2. Laws and regulations
3. Quality and safety
4. Efficiency
5. Social responsibility
6. Education / training
7. Community participation
8. Zoning
9. Research and development
10. Continual improvement
11. Certification
12. International trade
Thai Quality Shrimp (CoC Shrimp) Towards International Standards

Farm
- FAO
- ISO 14001 (EMS)
- CODEX

Shrimp Distributor & Processor
- Importing countries standard
  - CODEX
  - HACCP
Guidelines for Food safety

1998 - 1999
Code of Conduct for Responsible Shrimp Aquaculture (CoC)

• General farm management
  - GAP (Manual, Work Instruction)
• Stocking density
  - Optimum to minimize loading
• Feed management
  - Efficiency oriented
• Health management
  - Preventive for good health
• Drug and chemicals
  - To avoid contamination and residues
• Harvesting and transportation
  - Good hygienic manner
Elimination of Antibiotics Contamination in Shrimp Products

- Drastically reduce imported prohibited antibiotics
- Control and Monitor the use of antibiotic from feed, farm shrimp and shrimp products
1998-1999
Code of Conduct for Responsible Shrimp Aquaculture (CoC)

Guidelines for Environmental Friendly

- Site selection
  - Minimized environmental impact under zonation

- Effluent and sludge management
  - Reduction of the environmental impact

Drain effluent to aeration pond
1998-1999
Code of Conduct for Responsible Shrimp Aquaculture (CoC)

Guidelines for Social Responsibility

• Social responsibility
  - Fair Labor Treatment
  - Sufficient welfare
  - Community contribution

• Training
  - For continual improvement
Categorized of Shrimp Farm Standards

To achieve the goals of sustainable shrimp aquaculture, food safety, environmental friendly and social responsibility

1. GAP : Good Aquaculture Practice
   Minimum requirement of farm management

   - Hygienic/Sanitary Approach
   - No prohibited antibiotic applied for shrimp culture operation
   - Strict following the environmental protection laws
     - No sludge dumping to the public area
2. CoC : Code of Conduct for Responsible Shrimp Aquaculture

Full requirement of farm management, harvest and processing for a premium product

- Farm operations according to the production manual
- Preventive actions for safety and quality product
- Management in according to environmental friendly manners
- Well social responsibility
- CoC connected all producers of the production chain
- Complete traceability of the product

Demonstration of CoC farm practice was carried out in 2000
2001
Establishment of certification system
(under Thai - French Cooperation)

Trainer
(Coastal Aquaculture Center, Station)

Farmer

Corrective action

Application

Document checking

Farm evaluation

Certification committee
(Senior Biologist, Director, DOF)

Surveillance
2 times/year

Inspector
(Provincial fisheries officer)

Non conformity

CoC

GAP

Farmer

Suspend, Withdrawal

Certification

Suspend, Withdrawal
2002
Training of auditors, inspectors and trainers
2002

Implementation of national shrimp aquaculture certification program (farm, hatchery, and shrimp distributor)
2003
Implementation of manual traceability system (FMD/MD)

Supplier/Importer of Feed, other farm inputs

- Broodstock suppliers
- Shrimp Hatchery
- Shrimp Farm
- Shrimp Distribution
- Shrimp processing plant

Records/Documents

Domestic consumption 15% Export 85%

Traceability
2004: National Food Safety Year
Development of labeling program (Q mark)

- **System certification**
- **Product certification**

- GAP
- Green
- CoC
- Premium
2004: National Food Safety Year

Establishment of National Agricultural Accreditation Body (ACFS/MOAC:)

Accreditation Body (ACFS)
- Certification Body Dept. of Agriculture
- Certification body Department of Fisheries
- Certification Body Dept. of Livestock
- Others Private Certification Body
2004 : Auditing of Thai shrimp certification by French Expert
2005-6 TraceShrimp: (Computerized Shrimp Traceability)

2006 - Beginning of 2nd review of shrimp certification guideline/check list
- Personal training on ISO 9001, ISO/IEC Guide 62, 65
## COC and GAP Participation Program and Farm Certified’ 2002-2005

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<th></th>
<th>2002</th>
<th>2003</th>
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<td>32</td>
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<td><strong>GAP Certified Farms</strong></td>
<td>189</td>
<td>6,417</td>
<td>12,075</td>
<td>9,500</td>
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<tr>
<td><strong>CoC &amp; GAP Certified Farms</strong></td>
<td>221</td>
<td>6,499</td>
<td>12,163</td>
<td>9,577</td>
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</table>

- Total Trained Shrimp Farmers: 16,667
- Total CoC Certified Farms: 377
- Total GAP Certified Farms: 28,181
- Total CoC & GAP Certified Farms: 28,558
No. of hatcheries/farms certified by DOF-2006

Shrimp & prawn
- Marine shrimp 21,498 (GAP)
  274 (CoC)
- Freshwater prawn 1373 (GAP)

Shrimp & prawn
- Marine - finfish 247
  - crab 64
  - mollusk 19
- Freshwater - finfish 202
  - frog 12

Resources for certification system 2006
- Auditors/Inspectors 279 / 96
- Laboratory technicians 70
- Monitoring unit 23
Future plan for improvement of aquaculture certification system (2007-2008)

- Review certification body/system (to comply with ISO/IEC/GUIDE 65)
- Review guideline and auditing checklist
## Future Organizational Structure of Aquaculture Certification Body (ISO/IEC Guide 65)

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<th>Board of Director</th>
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<td>Administration</td>
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<tr>
<td>Farm evaluation</td>
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More information in the following websites

www.thaiqualityshrimp.com

www.thaitraceshrimps.com

www.fisheries.go.th