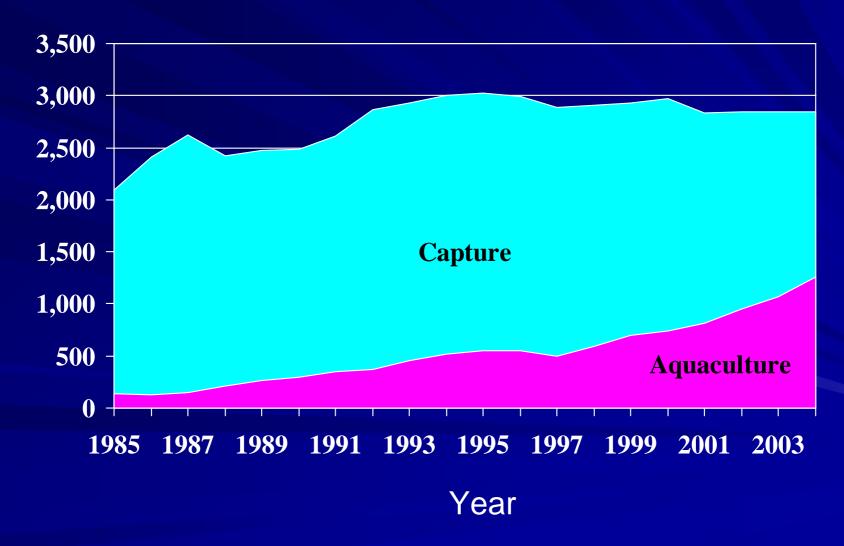


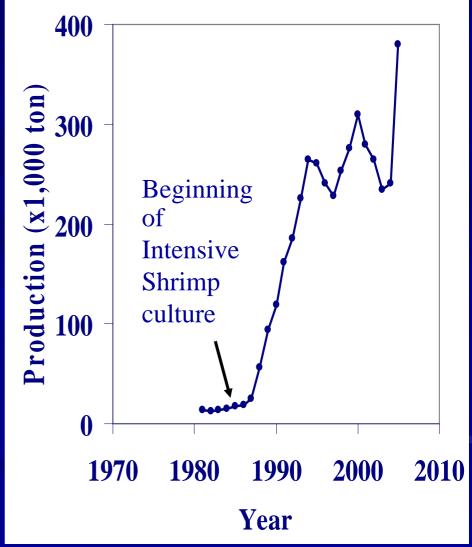
Fisheries Production in 1985-2004

Quantity (x1,000 ton)



Shrimp Aquaculture Production





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

- 1998 -

Development of policy, framework and public hearing

Policy Statement of Shrimp Aquaculture Industry



- 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

1998 - 1999

Code of Conduct for Responsible Shrimp Aquaculture (CoC)

Guidelines for Food safety





- 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



Drain effluent to aeration pond

- Site selection
 - Minimized environmental impact under zonation
- Effluent and sludge management
 - Reduction of the environmental impact

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

Categorized of Shrimp Farm Standards

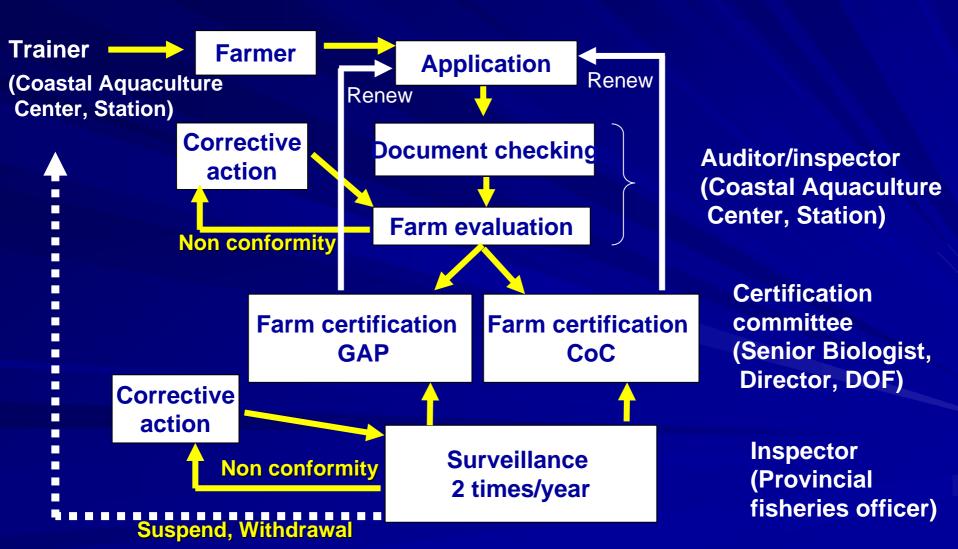
2. CoC: Code of Conduct for Responsible Shrimp Aquaculture

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

Establishment of certification system (under Thai - French Cooperation)



Training of auditors, inspectors and trainers







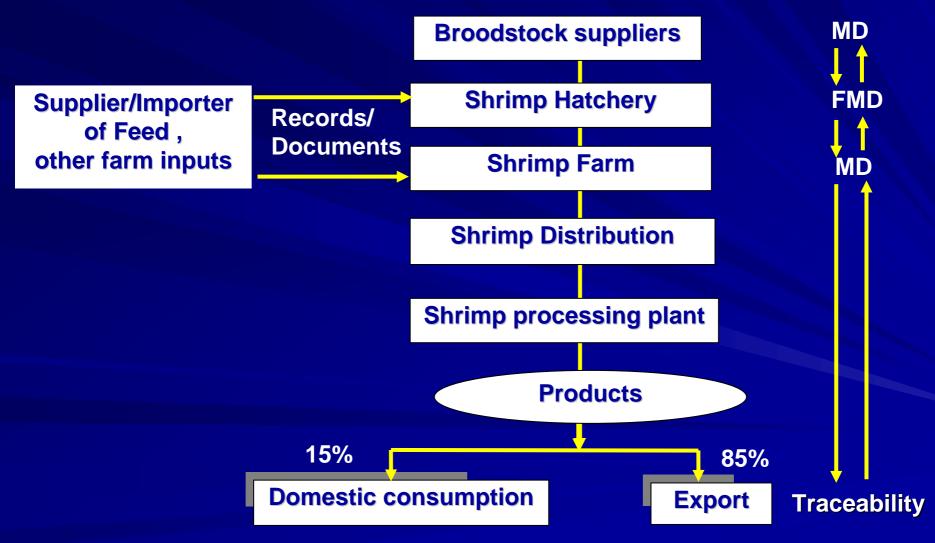
Implementation of national shrimp aquaculture certification program (farm, hatchery, and shrimp distributor)







Implementation of manual traceability system (FMD/MD)



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

System certification





Product certification

Green



Premium



CoC

GAP

2004: National Food Safety Year

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



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

	2002	2003	2004	2005	Total
Trained Shrimp Farmers	5,548	11,119	N/A	N/A	16,667
CoC Certified Farms	32	82	186	77	377
GAP Certified Farms	189	6,417	12,075	9,500	28,181
Grand Total					
CoC & GAP Certified Farms	221	6,499	12,163	9,577	28,558

No. of hatcheries/farms certified by DOF-2006

Shrimp & prawn

Other species (GAP)

- Marine shrimp 21,498 (GAP) Marine - finfish 247 274 (CoC) - crab
 - 19 - mollusk

64

• Freshwater prawn 1373 (GAP) 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)

Board of Director

Strategy and policy

Certification committee

Decisions of certification Farm certification

Auditor pool

administration

- -sufficient number
- -independent
- -transparency
- -qualification
- -competency
- -liability

Day to day management

Farm evaluation

More information in the following websites

www.thaiqualityshrimp.com

www.thaitraceshrimps.com

www.fisheries.go.th

