



Accessing better markets—improving competitiveness of small-scale shrimp farmers: A Case study of Thailand


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Presentation Outline



- Overview of world shrimp production and market
- Progression of Thai shrimp Farming
- Small-scale shrimp farmers in Thailand
 - Contribution to the sector
 - Issues and challenges
 - Positioning for market
 - Capacity building needs
 - Policy implications and needful support






Global Shrimp Production

- Total world shrimp production-
3.07 million tonnes in 2006
- Asian production was 2.74 million tonnes
(89.2% of world total)
 - China produced 1.21 million tonnes (44% of Asian production)
 - Thailand produced 500,000 tonnes (18% of Asian production)
 - Followed by Indonesia, Vietnam, India

Coastal aquaculture in Thailand (2005)

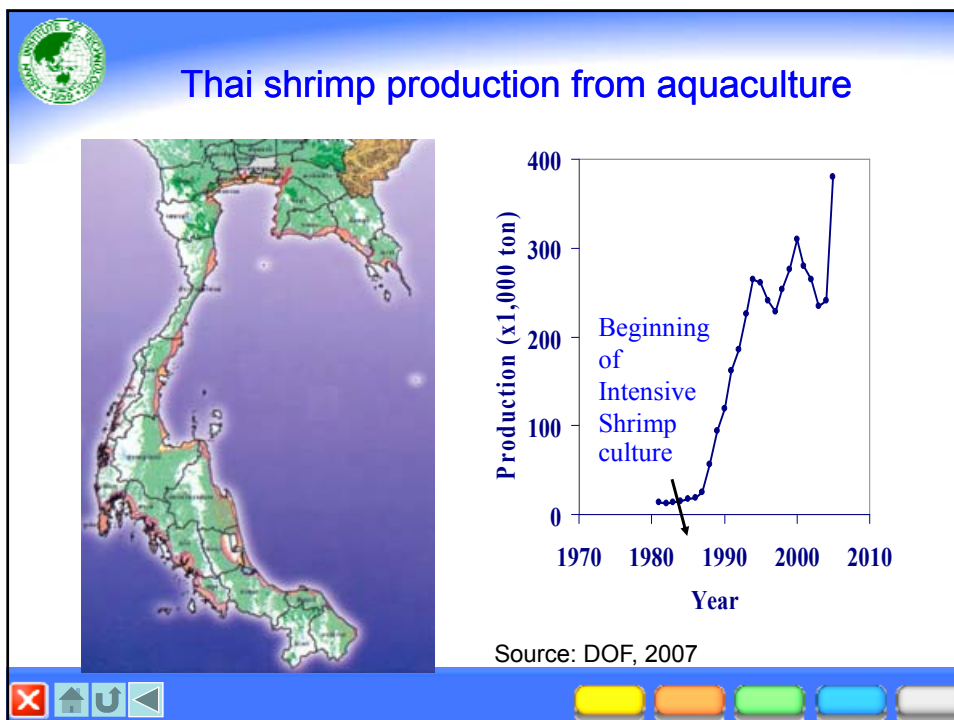
- Marine shrimp is predominant species
 - 33,411 farms
 - Area about 71,825 ha. (mostly intensive system, monoculture)
 - About 85% production is meant for export
 - 360,289 tons/year or 49.0% of total coastal aquaculture
- Fish
 - Seabass , grouper
 - 8,606 farms , area 881 ha.
 - 17,162 tons/year or 2.3% of total coastal aquaculture
- Shellfish
 - Oyster , Bloody cockle , Green mussel
 - 7,024 farms , area 11,837 ha.
 - 358,758 tons/year or 48.7% of total coastal aquaculture

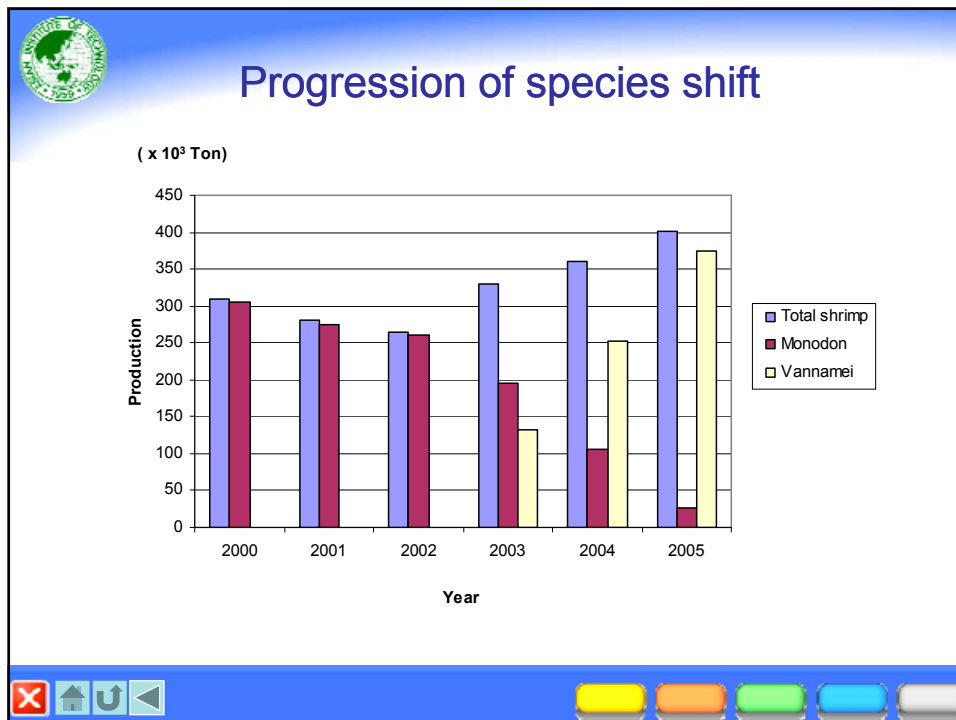
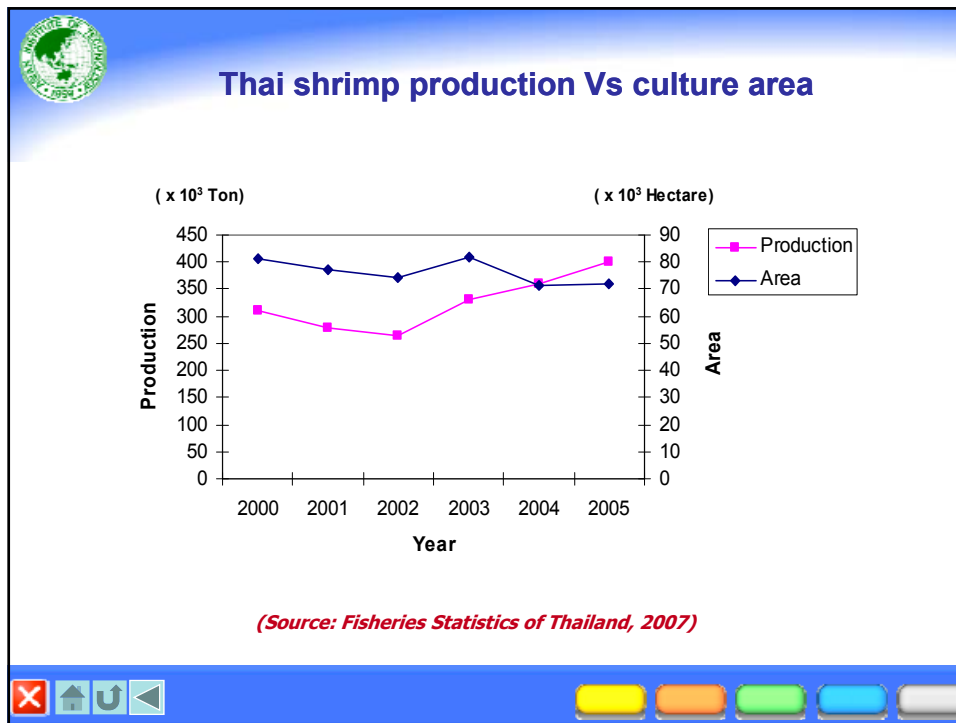


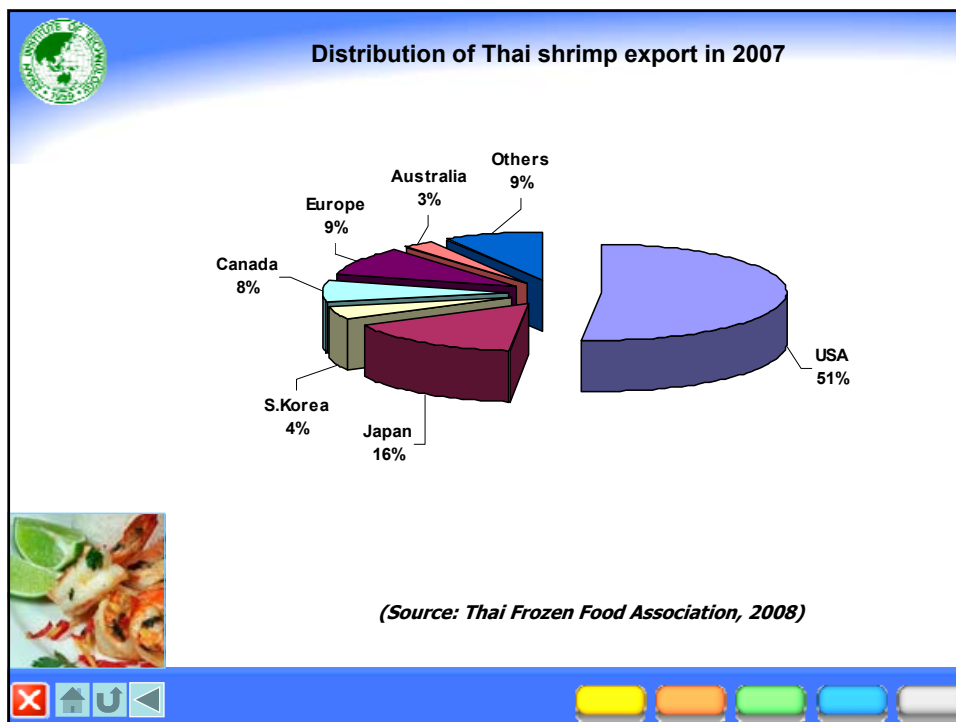
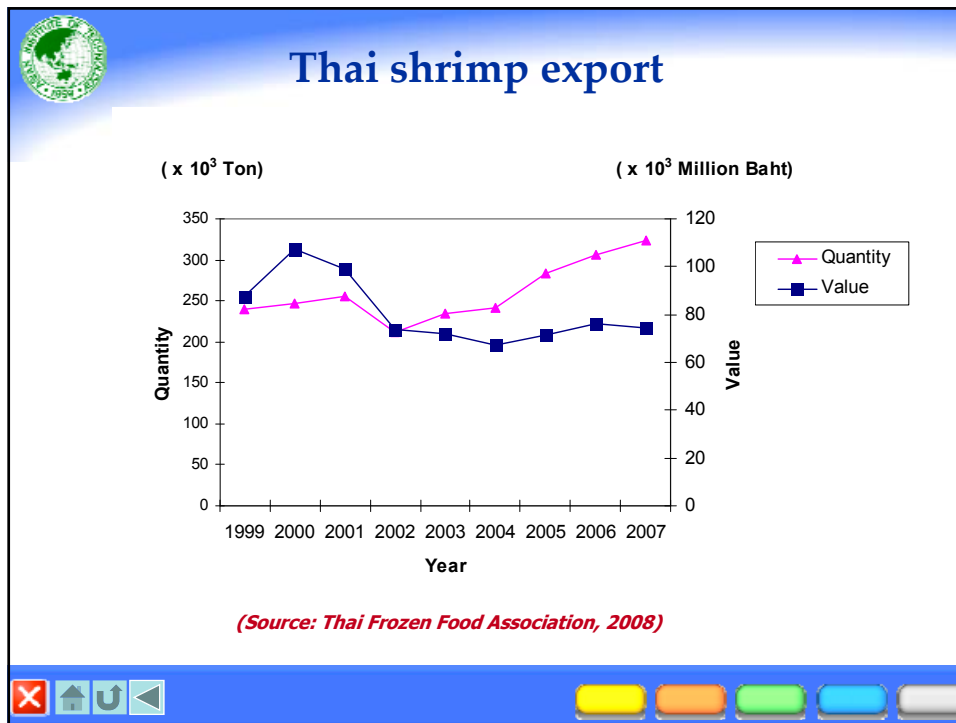


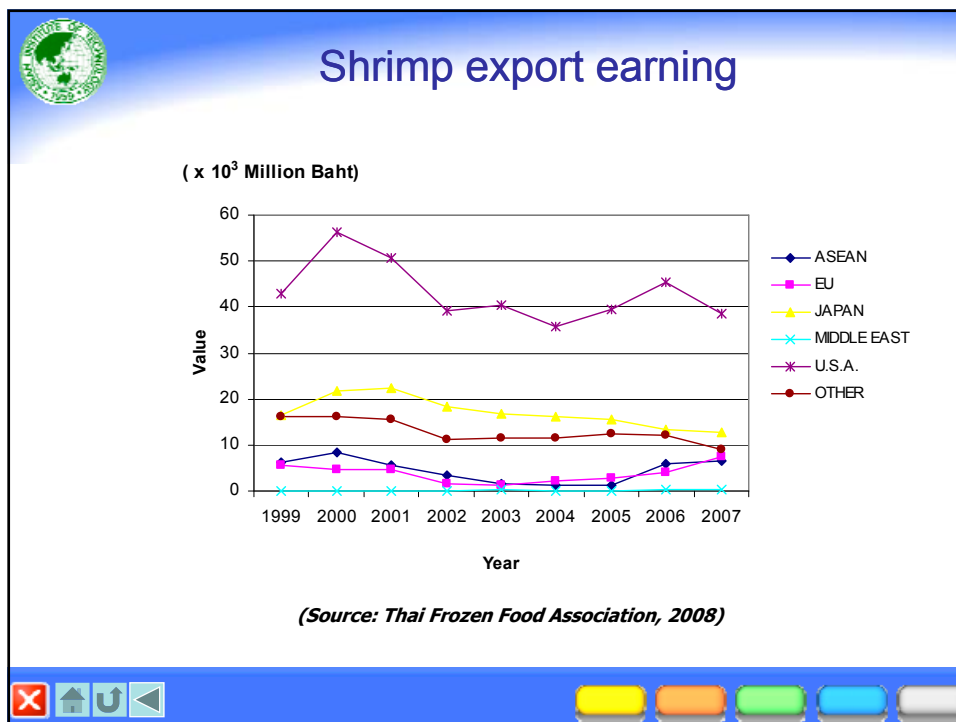
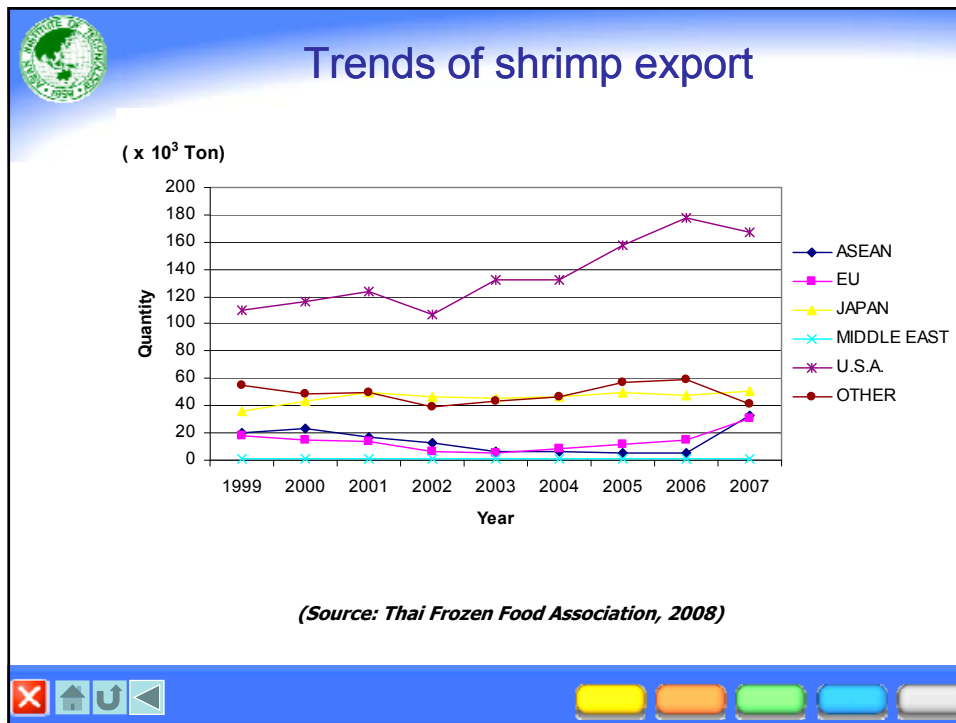
Thai shrimp farming


- Intensive shrimp farming arrived in Thailand during the 1980s and it quickly became an important export industry
- Thailand has been the world's leading exporter of marine shrimp, exporting about 85% of its production with annual foreign exchange earning of over two billion US dollar
- Number of shrimp farms has increased from 3,045 farms in 1978 to 33,444 in 2005, covering 71,825 ha
- 80% of the total shrimp farms in Thailand belong to small-scale farmers











Issues and Challenges

- Environmental sustainability
 - How shrimp farming ensures environmental sustainability?
 - Mitigation measure to minimize environmental impact is a major challenge!
- Food safety and consumer health
 - How shrimp farming maintains food safety and product quality?
 - Product compliance with new standards is a major challenge!
- Social equity
 - How shrimp farming delivers significant social benefits?
 - Improving condition small-scale shrimp farmer is a challenge!

Production increased by intensification of system: leading to environmental concerns

FARMING SYSTEM

AS FARMING SYSTEMS INTENSIFY, USE OF RESOURCES & INPUTS INCREASES

EXTENSIVE

SEMI-INTENSIVE

INTENSIVE

PRODUCTION PER UNIT AREA

LAND USE / POND SIZE

WATER USE

AERATION

ENDOGENOUS NUTRIENT AVAILABILITY

POLY-CULTURE /HERBIVORE

EXOGENOUS FEED INPUT

USE OF FISHMEAL FISHOIL

STOCKING DENSITY

AMBIENT WATER & SEDIMENT QUALITY

ENVIRONMENTAL SUSTAINABILITY

FISH/SHRIMP PRODUCT QUALITY

WASTE OUTPUT

MANAGEMENT & HUSBANDRY SKILL

SUSCEPTIBILITY TO DISEASES

USE OF THERAPEUTICANTS / ANTIBIOTICS


FEEDING STRATEGY

NONE

FERTILIZATION/SUPPLEMENTARY FEEDS

COMPLETE FEEDS

AS FARMING SYSTEMS INTENSIFY, POTENTIAL ENVIRONMENTAL RISK INCREASES



 Environment Unfriendly Practices

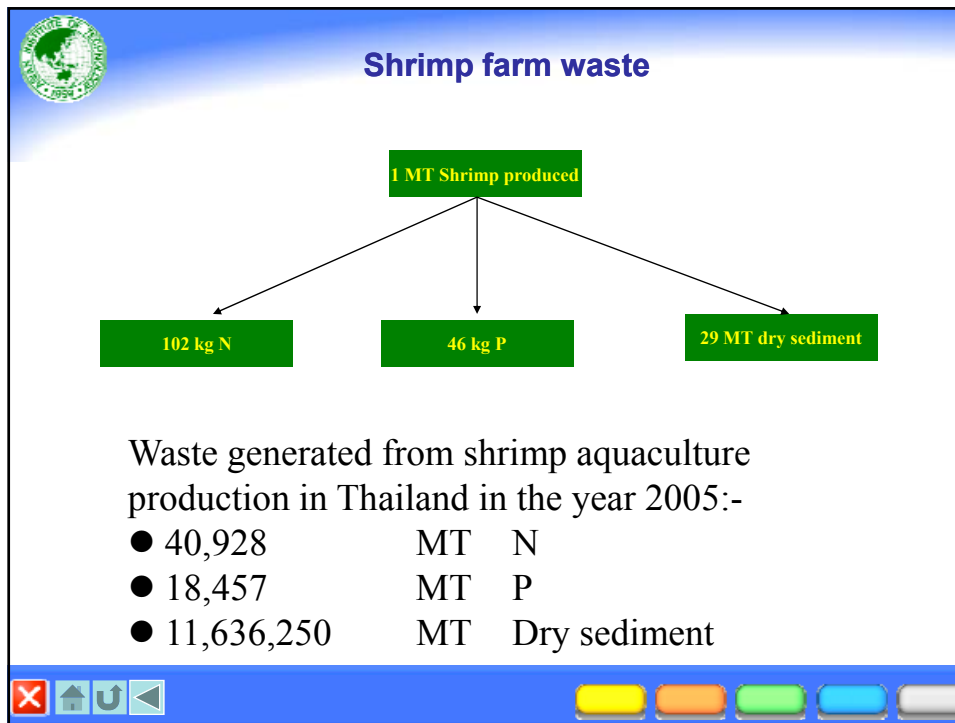




 Wet de-sludging

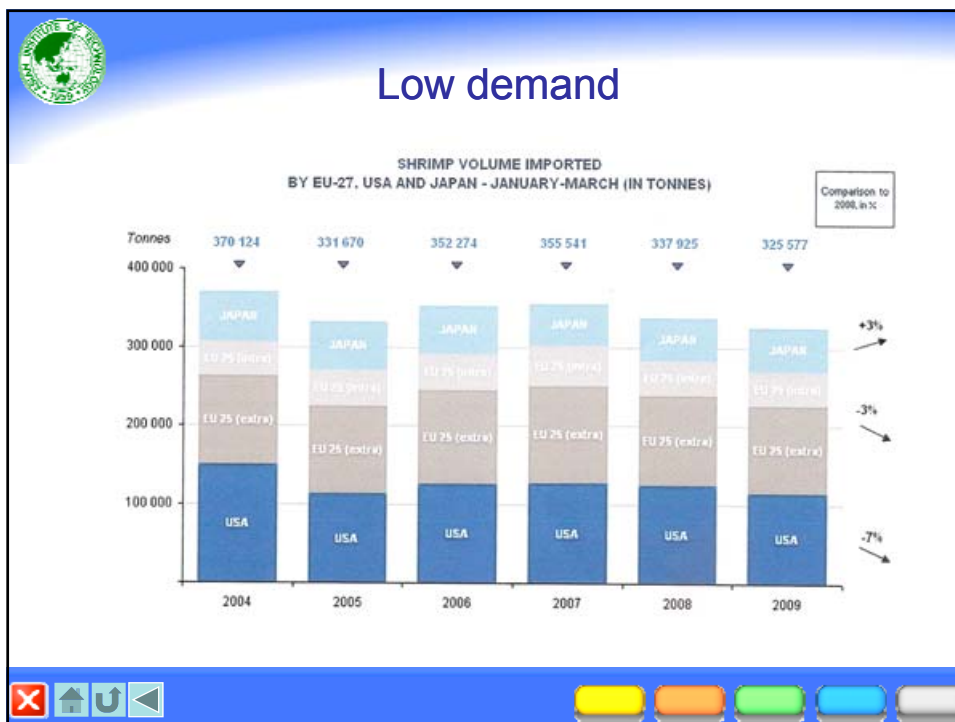
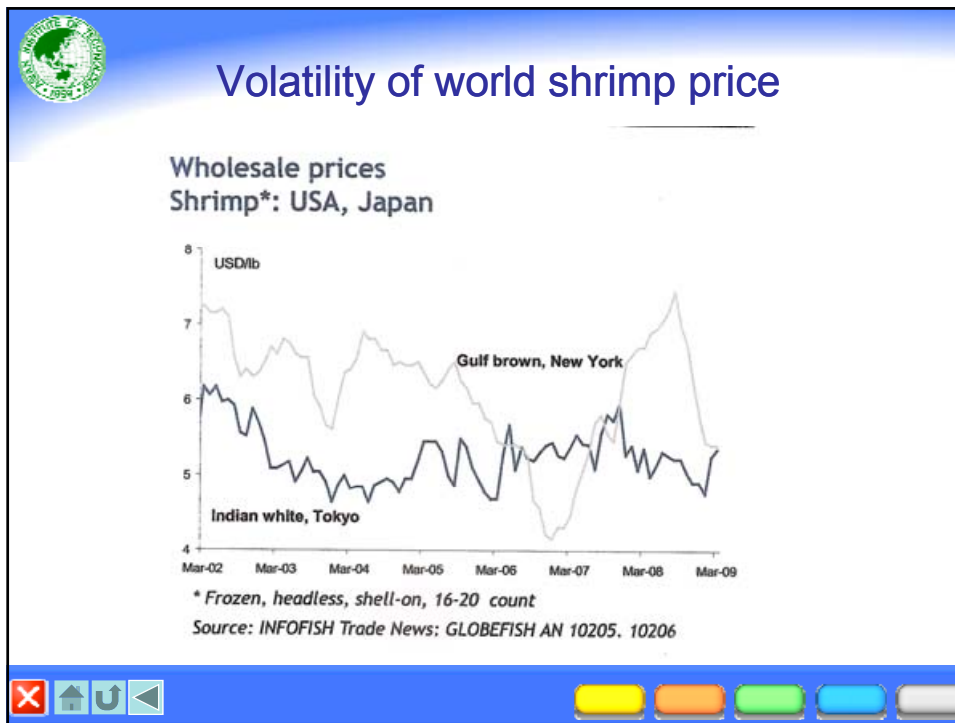






Food safety issues


- Drug and chemical residues in shrimp product- in 2002 EU rejected shrimp consignments from Thailand as antibiotic residues was found above the permissible level
- Abuse of chemical
- On farm sanitation





Economic implications



- Shrimp price in the world market is in decline
- International market are often subject to the fluctuating trend of world shrimp supply and demand
- Thailand shrimp export faces stern competition from neighboring countries
- Increased production costs and low shrimp price resulted in reduced farm profitability and thus, has made intensive shrimp farming less lucrative




Social issues

- Industrial shrimp farms always have competitive advantage over the small-scale shrimp farms-due to economy of scale and business integration
- Small-scale farmers cannot earn a good price because they have a limited market for their products and they do not have capacity to adapt to the new standards to get access to the niche market
- Small-scale farms being displaced by industrial shrimp farm


Thus, a visible shift from shrimp farming predominantly being a small-family business in Thailand to corporate monopoly





Government program to support sustainable shrimp production

- Thailand has a national initiative to promote the Farm-to-Table approach through a voluntary “Code of Conduct (CoC)” and “Good Aquaculture Practice (GAP)” for responsible shrimp farming
- The program is being implemented by Department of Fisheries as it has set target to bring all the shrimp farms under CoC/GAP program
- The program successfully brought majority of the shrimp farms under set guidelines of the COC/ GAP




GAP certification in Thailand

- Good Aquaculture Practice (GAP): Minimum requirement of farm management
 - Hygienic/Sanitary approach
 - Food safety approach
 - Environmental protection approach
- GAP is certified based on achievement of 3 criteria:
 - Farm practice
 - Farm sanitation
 - Chemical residue in harvest






GAP certification



For Marine Hatchery and Marine Shrimp farm

1. Site selection
2. General farm management
3. Feed management
4. Seed management
5. Farm sanitation
6. Harvest and transportation
7. Record Keeping






Code of Conduct (CoC) for Responsible Shrimp Aquaculture

➤ CoC: 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






CoC certification

For Marine Hatchery and Marine Shrimp farm




1. Site selection
2. General farm management
3. Post larvae stocking
4. Feed and feeding
5. Shrimp health management
6. Use of chemicals and drugs
7. Effluent and Sludge management
8. Harvest and marketing
9. Social responsible
10. Training
11. Record Keeping






Small-scale farmers-adapting to the GAP/CoC standards



- Small-scale farmers do not have sufficient knowledge and capacity to adapt to the new standards
- Benefit of the program in terms of improved marketability and better price for is not clear






AIT-NACA Project


- To assist small-scale shrimp farmers AIT and NACA conducted a joint project titled “Capacity building of small-scale shrimp farmers on adaptation of best management practices (BMPs) to promote Thai shrimp export to the EU”
- Farm survey was conducted to understand the social, technical and financial issues and challenges being faced by the small-scale farmers to adopt standards for responsible shrimp farming

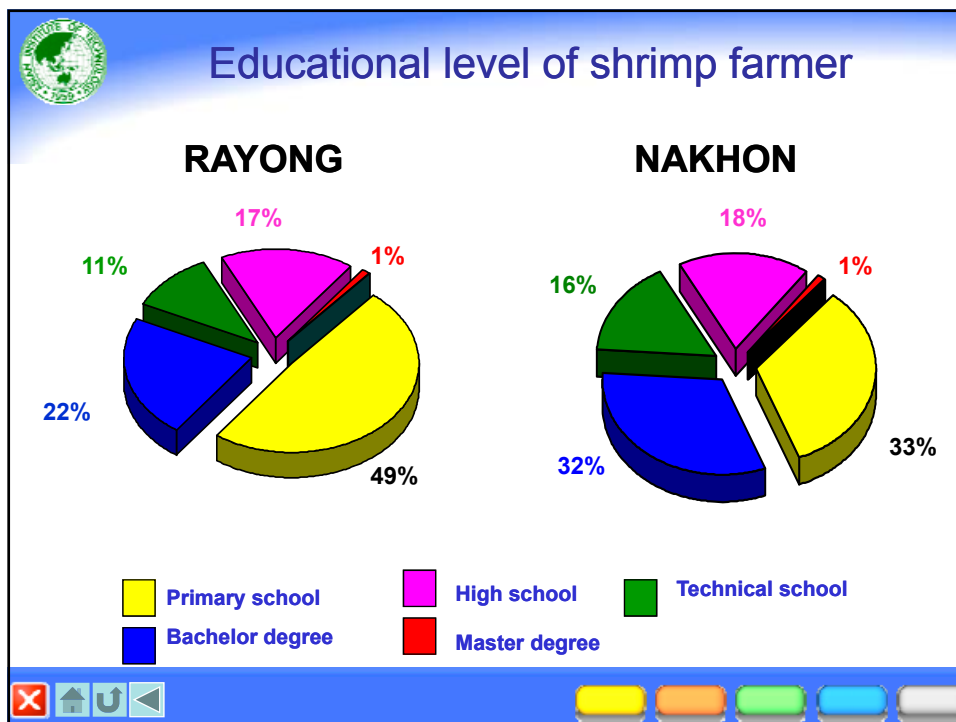
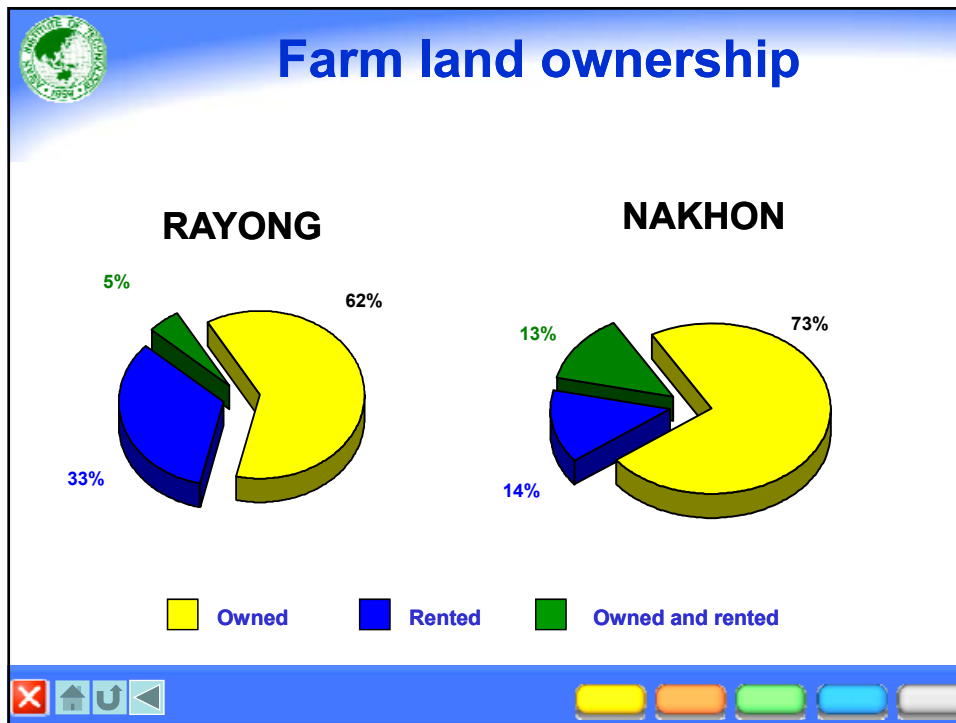


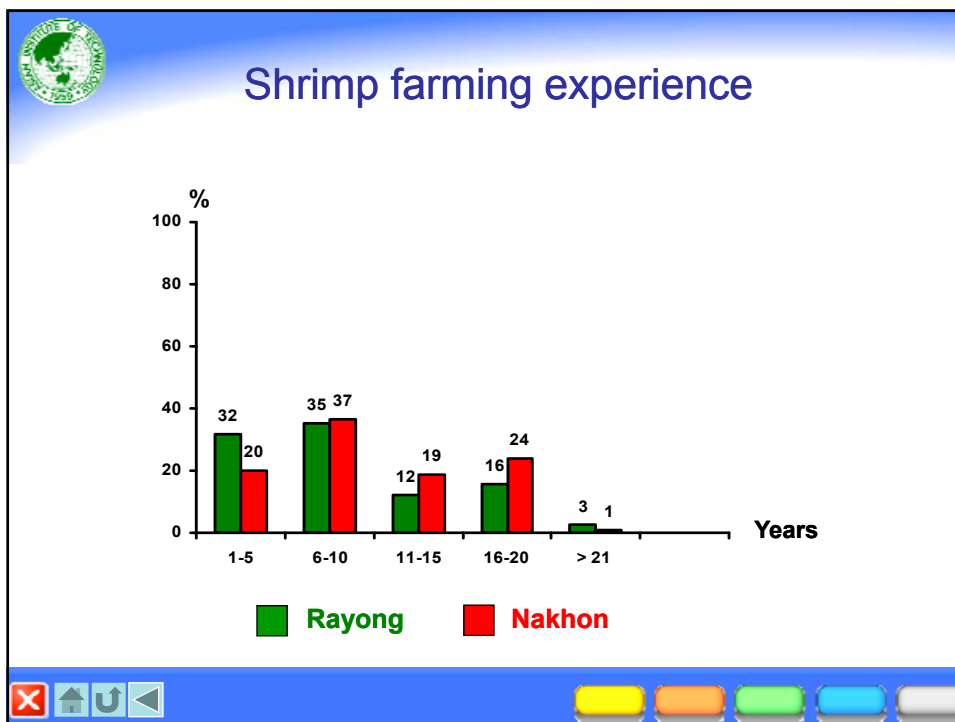
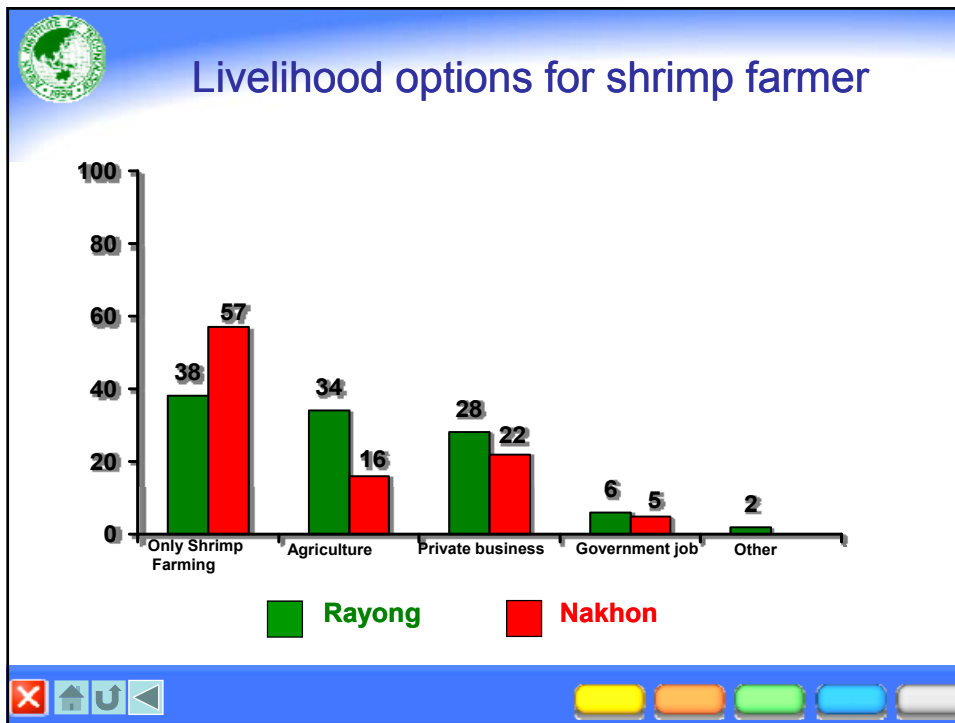
Shrimp farm survey

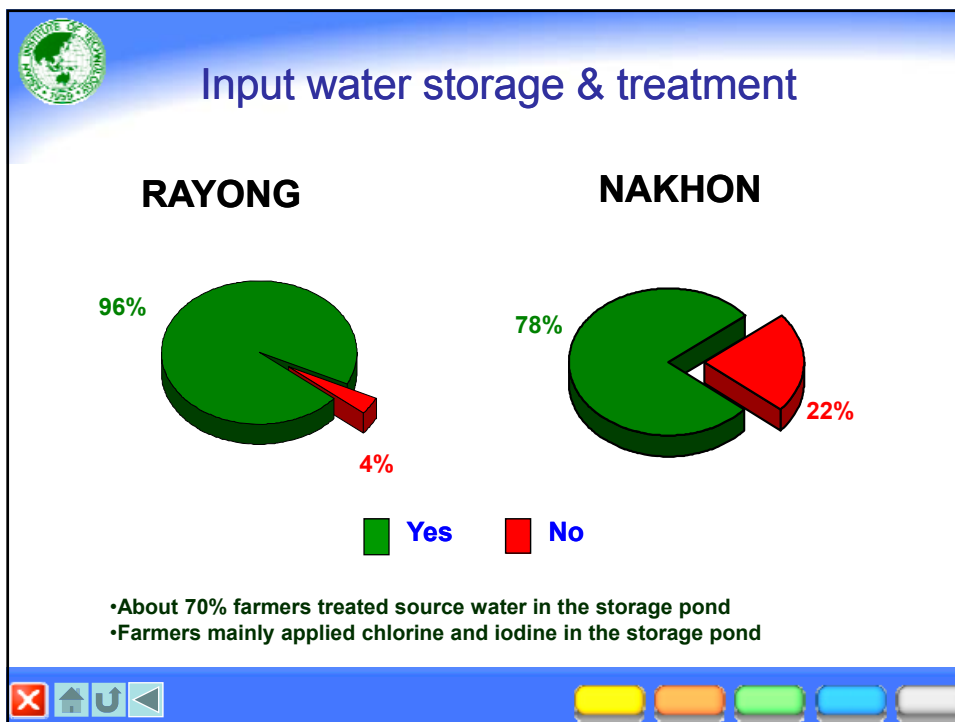
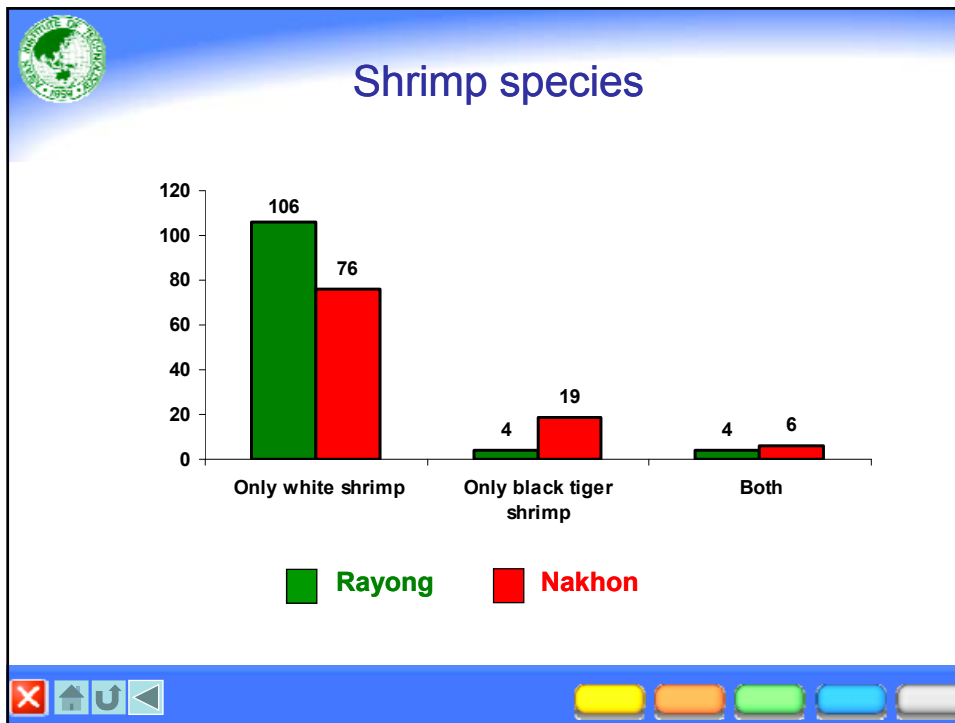


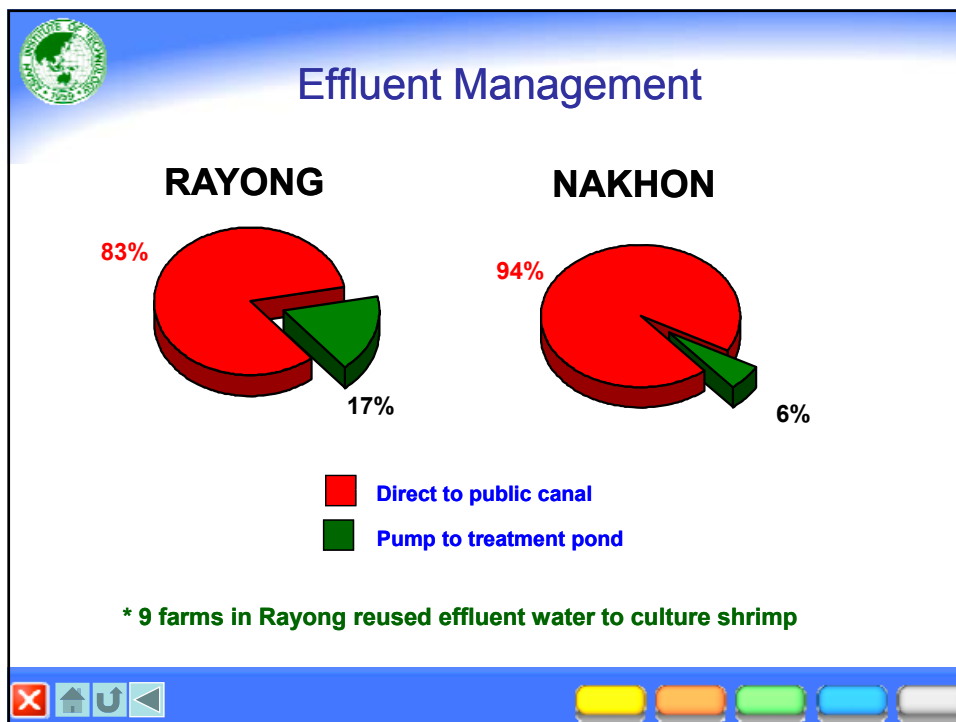
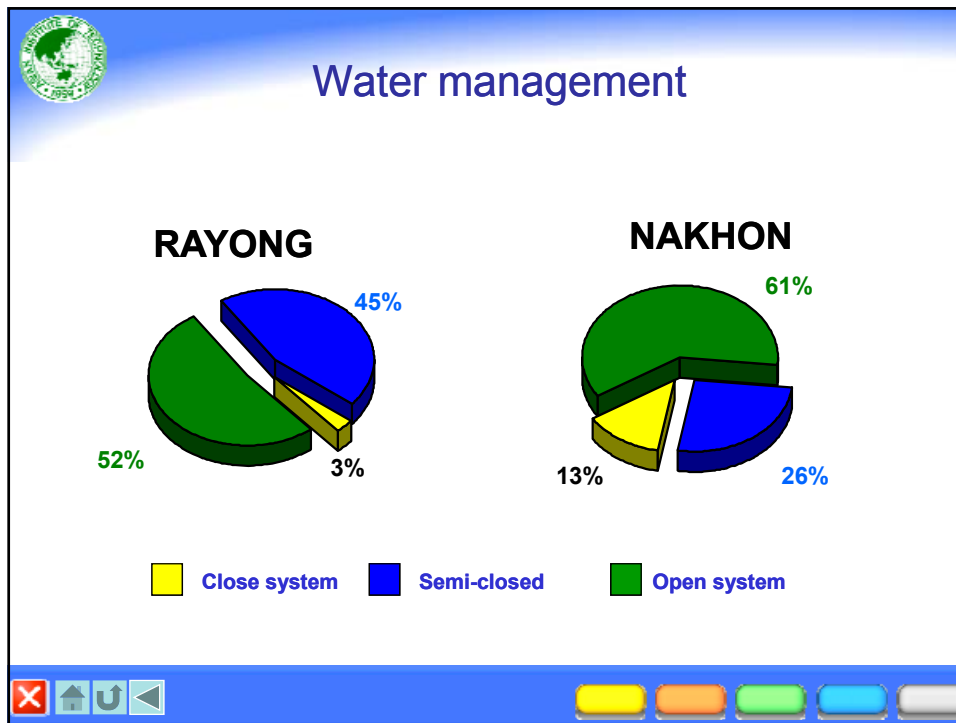
211 farms were surveyed during the study- farmers were interview with the set of pre-designed questionnaire

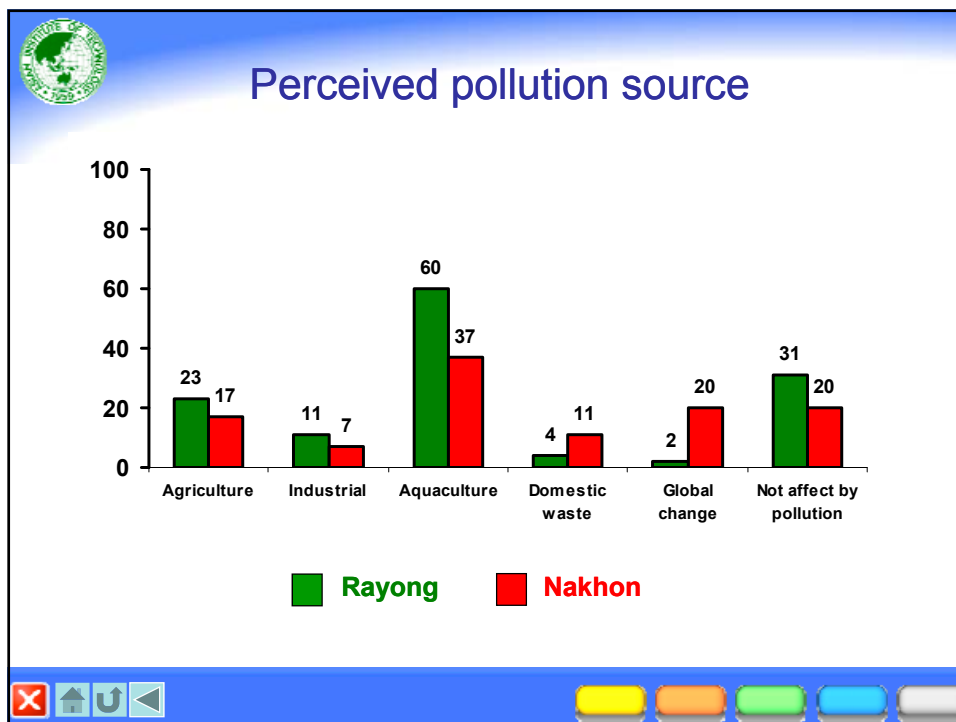
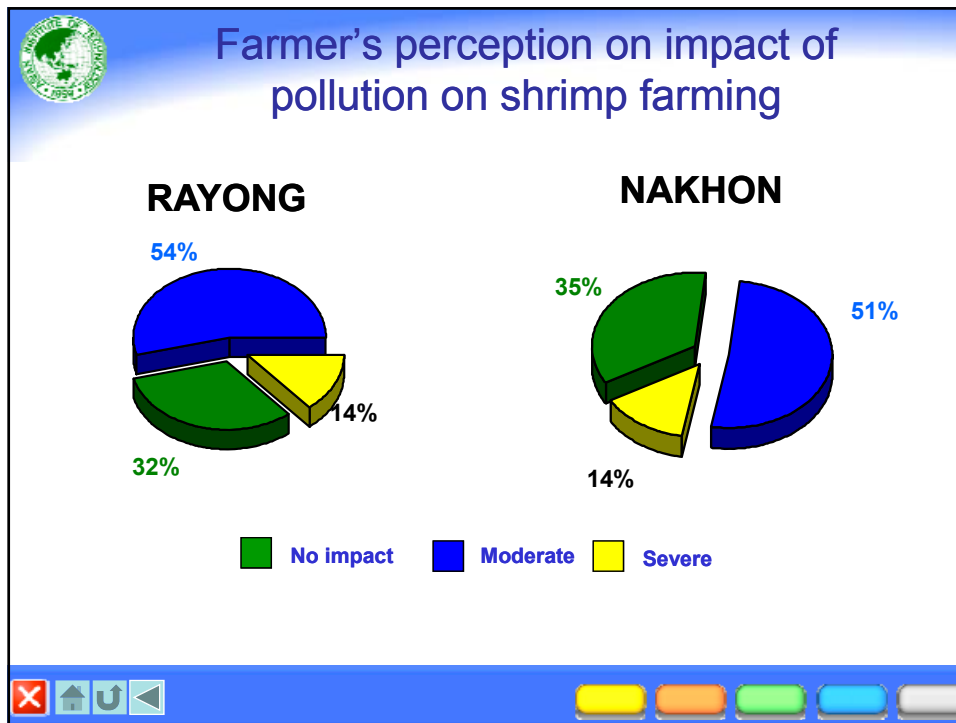


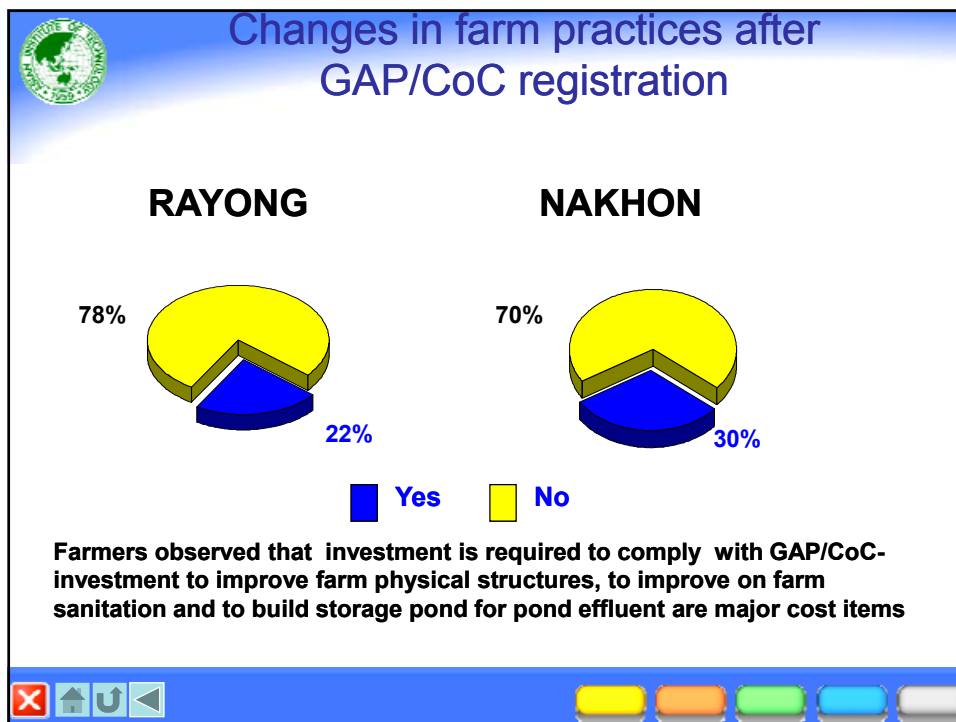
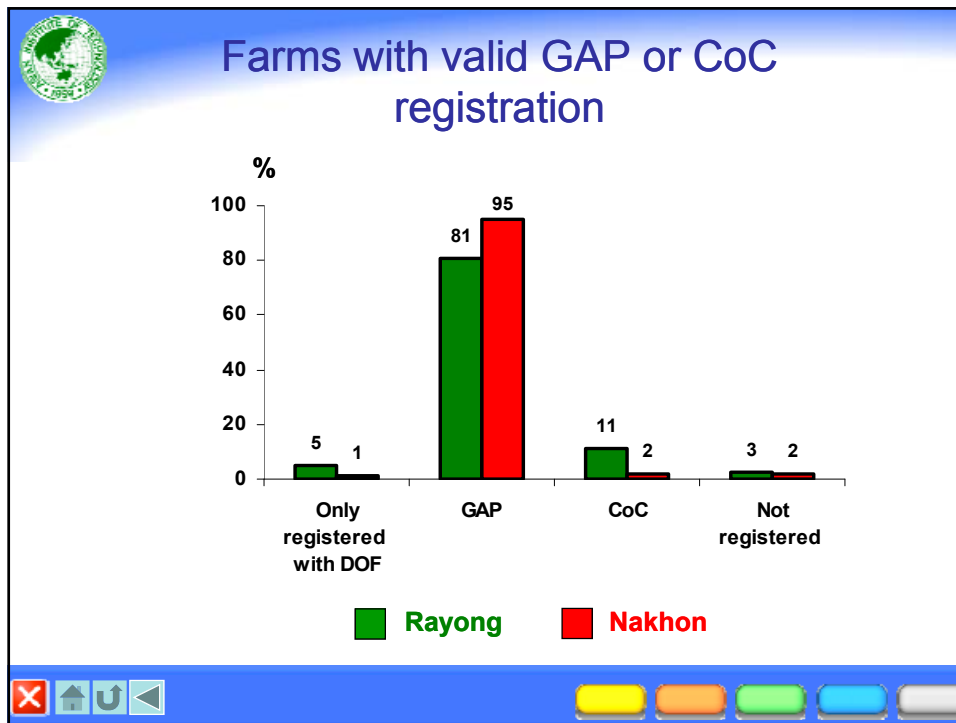


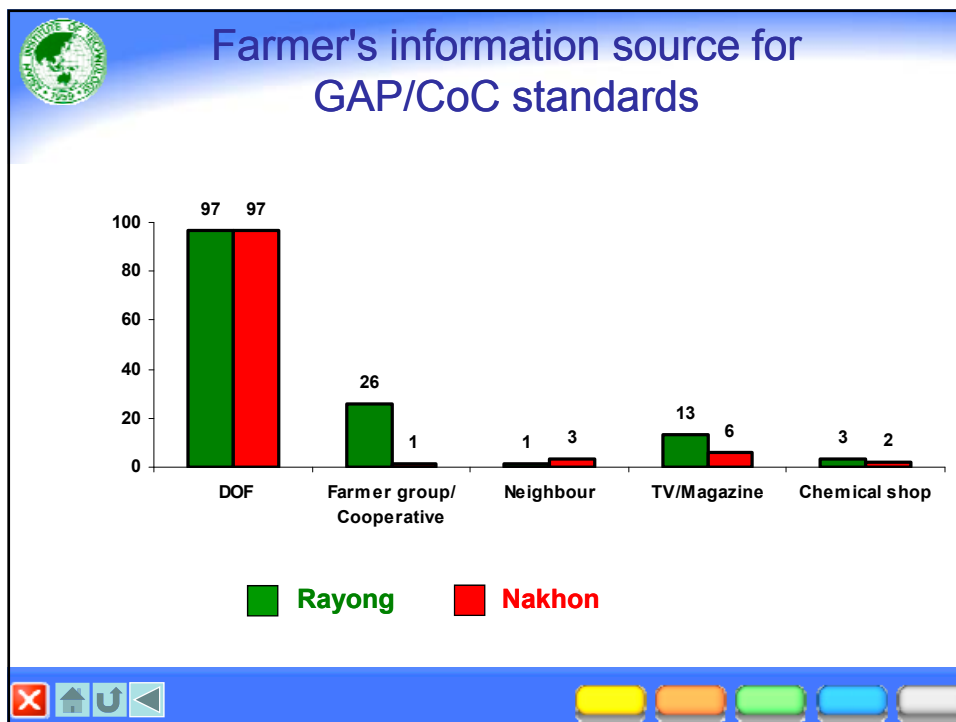
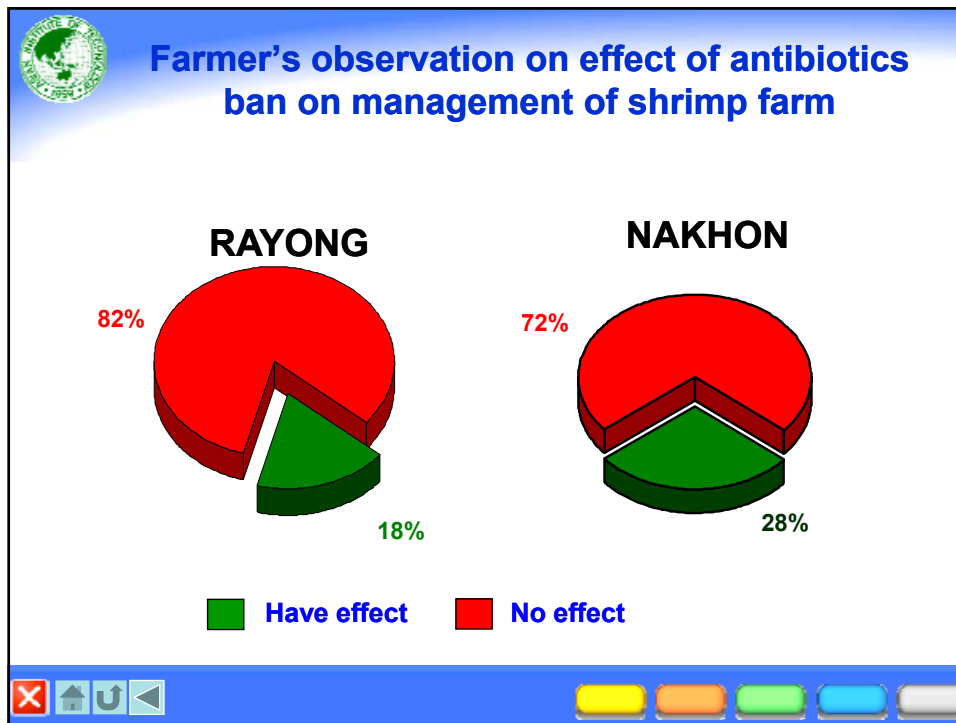


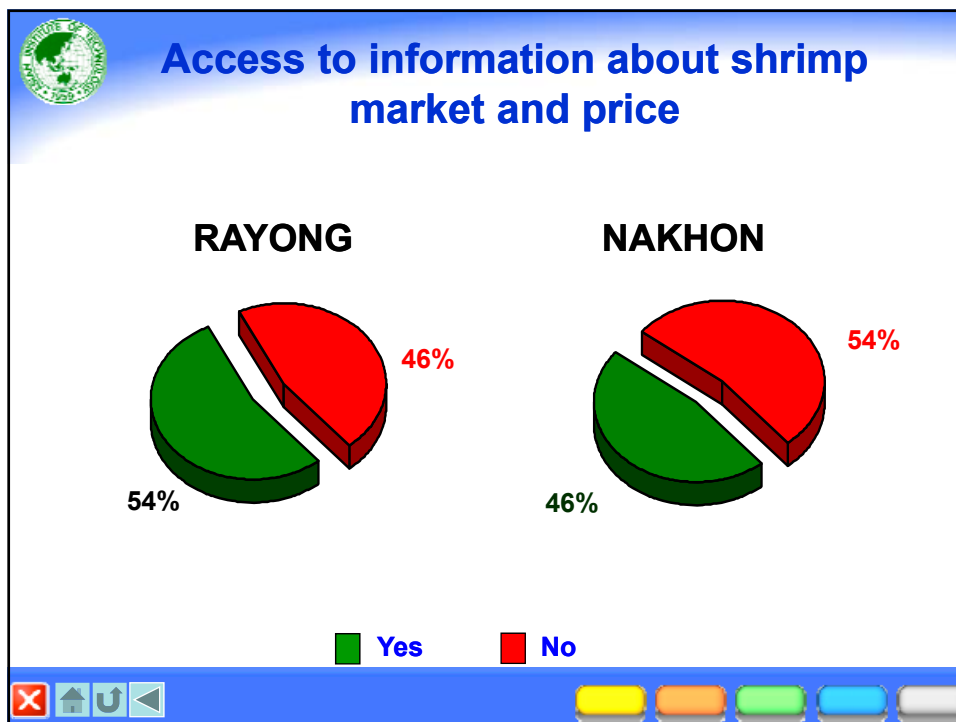
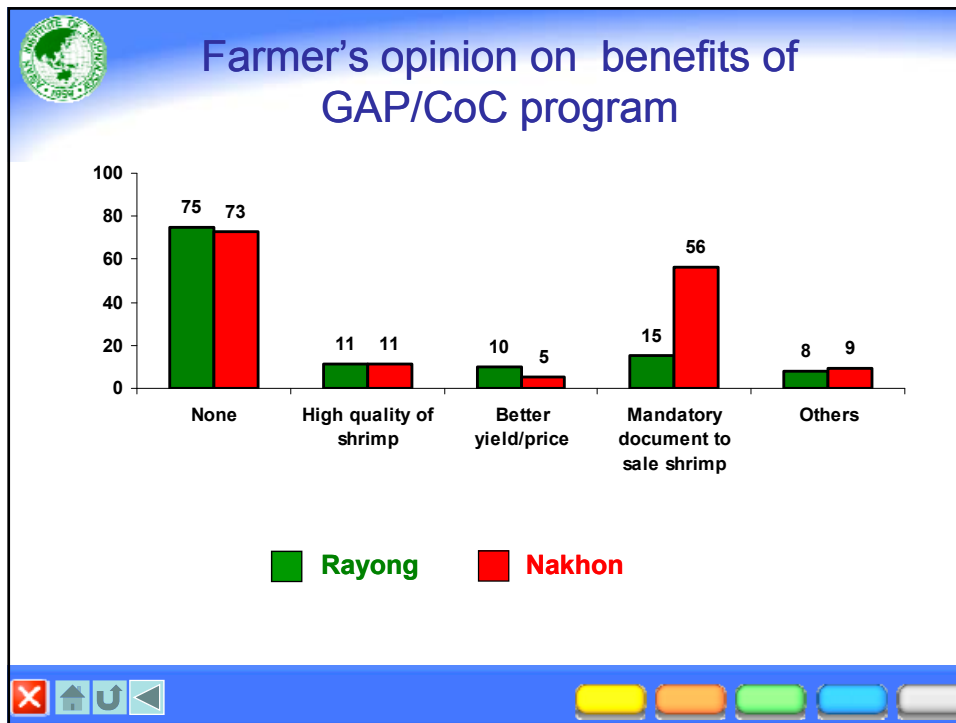
















Farmer's expectations for Government support


- 70% of farmers interviewed said that they expect the government to issue guarantee for minimum price
- Other expectations are: availability of credit to the farmer, subsidy for new technology and technological assistance program, imparting knowledge on market issues, and effective disease control and surveillance program



Major Challenges for Small-scale farmers



- Compliance with standard practices
- Certification- increasing number of aquaculture certification schemes
- Market access
- Economic viability






Conclusions


- To safeguard environment for sustainable shrimp production waste management practices must be user friendly → economically feasible, technically simple and culturally appropriate
- Maintaining food safety standards right from the farm level is a must to comply with the standards for access to the export market- dissemination of knowledge on standards and capacity building of small-scale farmers needs utmost focus
- Government/private sector should focus on intensive information dissemination and training schemes on various standards and technology options
- Efforts must be made to develop/strengthen link between standard farm practice and improved return

Conclusions


- Knowledge of the price trends of world shrimp markets need to be timely analyzed and effectively communicated to the shrimp farmers
- Collaboration between shrimp farmers and shrimp importers in the form of direct contractual relationship through farmer organization can facilitate better market access for the small-scale farmers, and help to safeguard their interests
- Government may consider providing minimum price guarantee to the vulnerable group of shrimp farmers
- Social issues in shrimp farming have received least attention so far, but is likely to emerge as important criteria for export market
- Government may seek to increase shrimp farming areas with small-scale farmers to develop the export market under principles of fair trade





Summary

- A well-coordinated capacity building program inclusive of export marketing and market information dissemination will play key role in improving the production efficiency and competitiveness of small-scale shrimp farms
- Government should closely monitor growth of the shrimp farming sector and regulate the growth to strike a balance between industrial occupation and small-scale farms to maximize the socioeconomic benefits of the sector → “considering the pro-poor policy”






Thank you!

