



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

**MAXIMIZING AGRICULTURAL REVENUE  
THROUGH KNOWLEDGE, ENTERPRISE  
DEVELOPMENT AND TRADE (MARKET)**

## Thematic Studies for 'Gender in Aquaculture in Cambodia, Lao PDR, Thailand and Vietnam'

Presented at the  
5<sup>th</sup> Global Symposium on Gender in Aquaculture and Fisheries (GAF5)  
*12-15 November 2014, Lucknow, India*



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# Case study

## Gender in cage culture Red Tilapia Value Chain in Vietnam



# Presentation outline

1. Researchable issues
2. Objectives
3. Methodology
4. Results and discussion
  - General introduction on red tilapia value chain
  - Gender in cage red tilapia farming
  - Gender issue in other actors
5. Conclusion and recommendations

# 1. Researchable issues

- Tilapia cage culture in Vietnam: developed since 90s, important role in local communities income.
- The total production of red Tilapia: 2.9% in 2007 and 5.6% in 2013.



- Major culture area in MKD



Legend:  
● Provincial capital  
● Major city  
— Main road 4

# National plan for aquaculture production in 2020

- 1.5 – 2.0 MT catfish (+ 4.8%/ yr)
- 700,000 tons shrimp (+5.76% /yr)
- 400,000 tons mollusc (+16.0% /yr)
- 200,000 tons marine fishes (+ 14.9%/yr)
- **150,000 tons tilapia (+7.9% /yr)**
- 150,000 tons seaweeds (+ 7.2% /yr)

# 1. Researchable issues (Cont.)



- Tien Giang province: ranked 2<sup>nd</sup> in production of Tilapia, rapid growth from 4,716 tons in 2005 to 8,470 tons in 2013 (> 2,400 households), avr. Yield is around 8-9 tons/cage/crop.



- Tilapia cage farming: men play main role. Current studies on technical and financial aspects in tilapia farms.

**What is about women's roles?**

**..... NOT STUDY YET**

## 2. Objectives

- To identify gender roles (men and women) in tilapia cage value chain in Tien Giang province, Viet Nam;
- To determine women's roles in Tilapia value chain, focusing on grow out farming sectors;
- To analyse gender roles in other nodes of value chain;
- To propose a solution for integrating gender role in red tilapia cage culture in Vietnam.

# 3. Methodology

## *Data collection*

### *Secondary data:*

DARDs', annual report of local fisheries Directorate and current studies.

### *Primary data:*

- *FGD and KPI*
- Questionnaire surveys: 30 tilapia grow-out cage culture farmers (5 women and 25 man) and owners of other actors (hatchery, nurseries, middlemen, wholesaler, processing plant).







Quantitative and qualitative methods

Qualitative analysis tool in empowerment



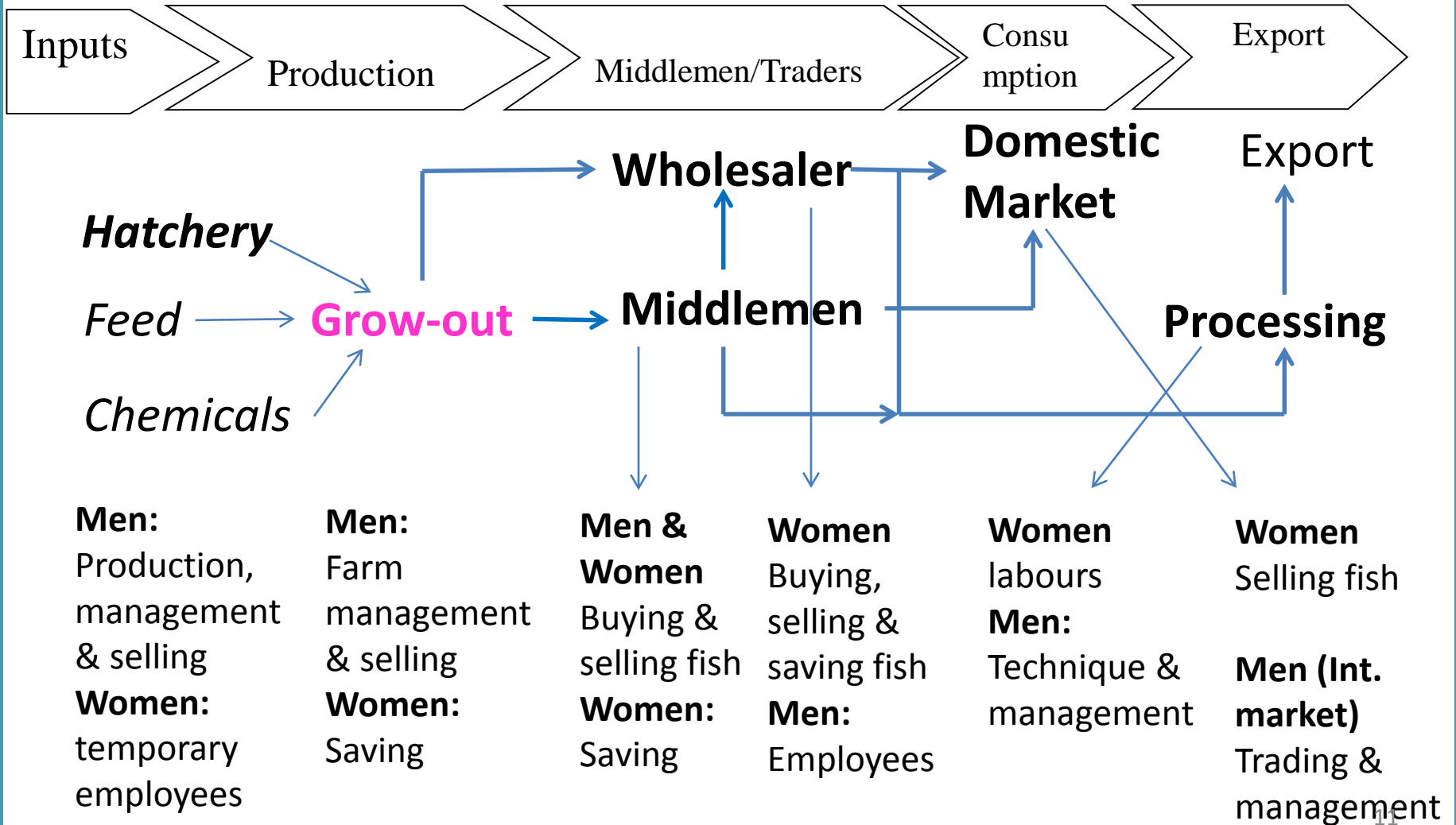
# General actors in red tilapia value chain

## Main actors:

- *Inputs*: Hatcheries; seed middlemen; nursing business; feed and chemical traders.
- Grow-out (farmers): Cage culture
- *Output*: Middlemen; wholesaler; market, processing plant;
- Middlemen, wholesalers
- Local markets
- Processing plant
- Export: international market (ASC)

# 4. Results

## General value chain of Tilapia commodity



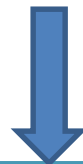
# Gender role in seed production and nursery

- **Men role:** the majority of activities related to technical aspect such as spawning, fertilization, medication, purchasing and selling fry, fish size classifying, transportation, communication marketing....
- **Women role:** household works, cleaning, counting fry, feeding fry, selling, saving, financial



## Gender role in grow-out

- **Men role:** Technique, buying seed, feed, stocking, feeding, pond management, market information, communication, marketing, selling....
- **Women role:** household works, saving, feeding, selling, financial managing,.....



## Gender role in production credit issue

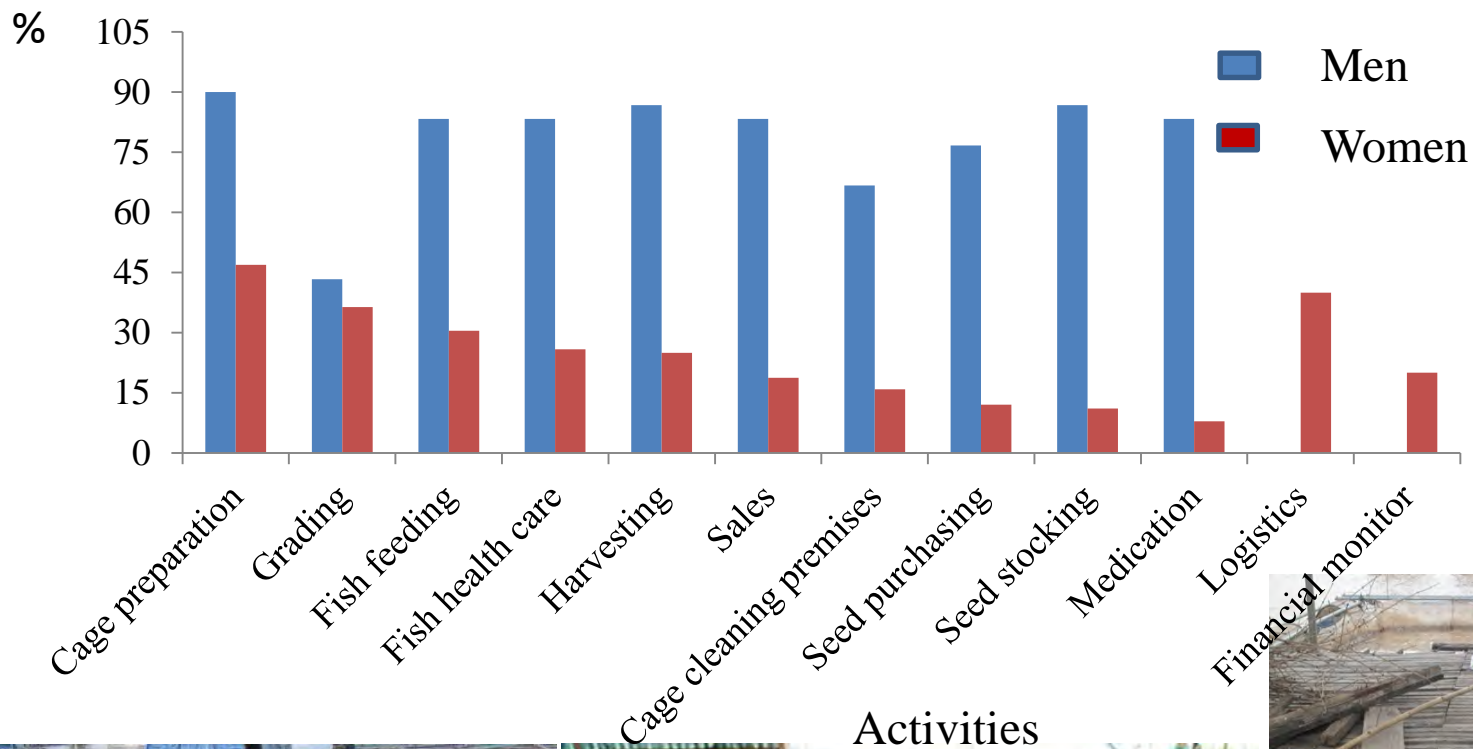
Indicators	Value (%)
Percentage of farm with <b>loans</b> production	<b>36.7</b>
<b>Credit access: - Banks</b>	<b>86.7</b>
- Relatives	13.3
Gender representation in borrowing: - <b>Male</b>	<b>93.3</b>
- Female	3.3
- Both	3.3
Gender representation in <b>loan</b> payment: - <b>Male</b>	<b>90.0</b>
-	6.7
Female	3.3
- Both	

**Men play important role** in credit issues due to high requirement of capital in fish culture. Men with property ownership will representation in borrowing.

# Gender role in tilapia cage culture

Activities	Male	Female
1. Seed purchasing	0.97±0.56	0.13±1.41
2. Seed contacting	0.7±0.6	
3. Fish health care	1.33±0.35	0.47±0.63
4. Feed purchasing	0.93±0.45	
5. Fish feeding	1.37±1.16	0.6±0.77
6. Cage cleaning premises	1.23±1.14	0.23±0.43
7. Harvesting	1.3±1.02	0.43±0.86
8. Sales	0.87±0.43	0.2±0.41
9. Saving	2%	98%
10. Indirect activities:		
<b>Financial monitor (%)</b>	52	<b>48</b>
<b>Housework (%)</b>	16.7	<b>83.3</b>





Activities







# Gender roles in post-production stage

Indicators	Family labor	
	Male (%)	Female (%)
Selling decision	73.3	26.7
Price negotiation	73.3	26.7
Income spending decision	43.3	56.7
Income distribution	Priority mark (1 – 3)	
- Household expenditure	2.03±0.93	
- Savings	2.00±1.41	
- Re-investment	2.43±0.35	

Although output stage is related closely to financial issues which are suitable for women to handle, men have dominated role than women because:

**Cages were far away from home => prevent women involve in farming.**

Tilapia cage culture is large-scale, high input investment with large money amount => important decisions are done by household head

# Gender role in middlemen & wholesalers

If the business is monitored by **men**:

- *Men owner role*: business management, business plan decision, fish size classifying,...
- Hiring labors (men and women): fish harvest, fish transportation, logistic supporting, cleaning, fish bag packing, communication, marketing...

If the business is monitored by **women**:

- *Women owner role*: Women have absolute decision in all production activities.
- Hiring men and women labors: fish harvest, fish transportation, fish size classifying, logistic supporting, cleaning, fish bag packing, trading communication, marketing, saving, financial managing.....



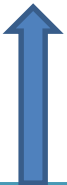
# Gender role in local market (selling)

## Women:

- Buying and selling fish
- Fish sizing
- Saving, household works (children care, coking,...)
- Financial managing

## Men:

- Carrying fish, logistic, business assisting
- Other works (taking & picking children to/from school),.....



# Gender role in processing plant

## Women:

- Documenting, office works, lab works
- Direct involving processing fish products (fillet, sizing, ...)
- Cleaning equipment and processing ground

## Men:

- Technical management, carrying, cleaning,
- Packing product,....



## 5. CONCLUSION

- **Red tilapia** cage culture requires high investment both technical and financial aspects => ratio of women in the family who involve less than men.
- Important decision on production is done by men with consulting to women in the family. In particular, women play an essential role in some assistant works require patience and careful such as feeding, cleaning,...and direct works such as financial management, saving, house works.

## 5. CONCLUSION

- Although men play major roles in culture technique, women also contribute significantly in financial management of Tilapia cage culture.
- 30% of women in family share the work, income distribution, feeding and women Union involves in Tilapia cage culture as well joining in Cooperative.
- In other actors, women play major roles in processing, buying and selling, minor role in seed production, nursing, farming but mostly engaging in middlemen and wholesaler actors.

# RECOMMENDATION

- Cage location is in deep water body and far from houses, it is not convenient for women involvement in tilapia culture. It needs to improve better facility for movement and safety for women.
- Women should involve more works in Tilapia cage culture private households and Cooperative and men should share household works with women.
- Women should be trained in red tilapia cage culture technique which probably help women enhance their participation in technical monitor.

- **Recommendation**

- Although red tilapia cage culture requires strong physical health, women can enhance their roles in contributing tilapia value chain by improving **5 domains** of empowerment: *production, resources, income, leadership and time.*

- Further researches on deeply quantitative analysis on empowerment of gender need to be conducted for red tilapia farming and other small-scale aquaculture in the MK.



# Thank for Women and Men

