

# STATES OF AQUATIC PRODUCTION SYSTEMS IN PERI-URBAN AREA OF HCM CITY (VIETNAM)

## ? HCM GROUPS

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## ? RESULT OF STUDY

- Institutional Analysis
- PCA analysis of aquatic food production systems in peri-urban
- Market analysis of freshwater fish and aquatic plants

# Aquatic Production Systems in Peri-Urban of HCM

## -Aquatic productions in Peri-urban

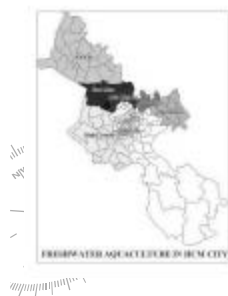
- Fish farming (ponds , rice-fish faring, cage culture)
- Aquatic plants (Morning glory, Mimosa, Lotus, Duckweed)
- Aquatic production systems in wetland, flooded area prone to be polluted with sewage.



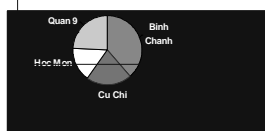
## - Food production systems of poor people

- Aquatic production systems are useful for poor peoples who tolerate urbanization and pollution.

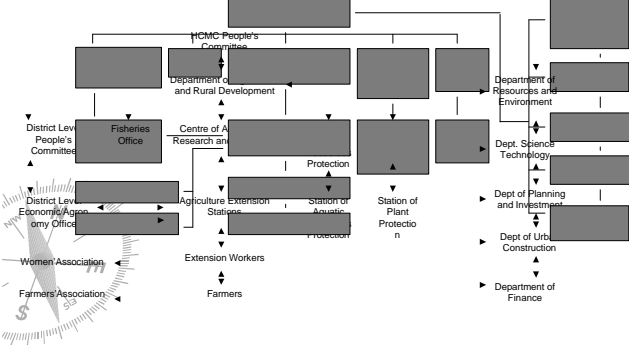
# Aquatic food production in HCM (Hoạt năng sản xuất thủy sản ven đô TP Hoà Chí Minh)



- Peri-urban of HCM city
- In freshwater area not including marine and brackish of shrimp farming
- Focus on peri-urban districts (BinhChauh, Hoac Moan, Quaa 9, Cu Chi) 90-95% aquatic production

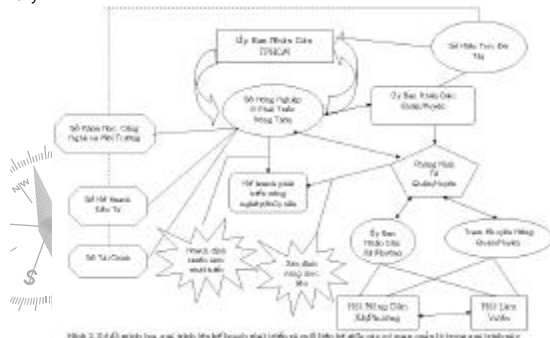


# SCHEMA OF STRUCTURE OF INSTITUTIONS HAVING RELATIONS TO IMPLEMENT AND DEVELOPING PAFPS



# INSTITUTIONAL ANALYSIS IN HCM CITY (HỆ THỐNG QUẢN LÝ SẢN XUẤT THỦY SẢN TP HCM) 2

Schema explaining a development project in relation to institutions in HCM city



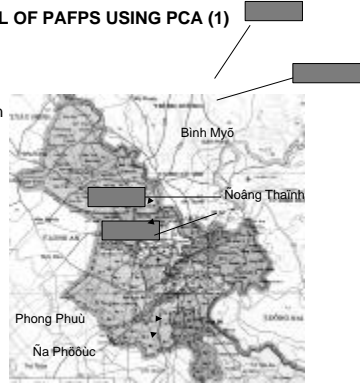
# SITUATION APPRAISAL OF PAFPS USING PCA (1)

PCA ??

- Modified PRA method
- Understand the production situation and livelihoods for peri-urbans
- Participation of local people

4 sites were chosen, characterizing PAFPS in HCM

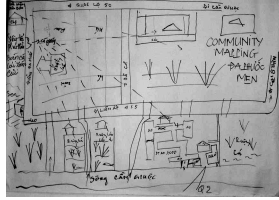
- Aáp 5, Xã Phong Phú, Binh Chauh: Fish faring, lotus planting and seed production
- Aáp 5, Xã Na Phóoc, Binh Chauh: Fish farming: aquatic plants
- Aáp 1, Xã Noang Thainh, Hoac Moan: Fish farming
- Xã Binh Myó, Cu Chi: Fish



## PCA- XAÕ ÑA PHỒÙC (1)

### Characteristics

- Having many aquaculture activities
- Relative far away from the city, having less severe water pollution for sewage
- Fish farming, Fish-lotus integrated farming, rice-fish farming
- Information came from women and man groups. These information is not significantly different



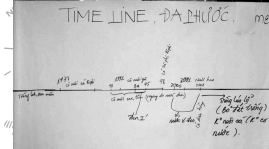
### Social-economics

- Not much immigrants, mainly householders living there, immigrants in village (30/565 hoi)
- Not farmine family, living standard is not so different except householder having commerce
- Most farmers practice fish farming, Knitting and working in factories nearby

## PCA- XAÕ ÑA PHỒÙC (2)

### History of the production

- Before 1978: rice and vegetables
- From 1979: Fish farming
- 1991-1995: Freshwater prawn farming until 1995 stop farming due to pollution
- 2000-2002: Black water reduced
- 2003: Red tilapia development



### Constrainst and oppotunities of the village Ña Phồùc

	Constrainst		
	Man	Woman	Both
1	Labor lack	Output	Labor
2	Technique	Credit	Output
3	Output	Technique	Technique
4	Credit	Labor	Credit
5	Flood	Flood	Flood
6	Pollution	-	Pollution
7			

## PCA- XAÕ PHONG PHUÙ

(1)

### Characteristics

- South HCM, 17 km, severely polluted and impacted with the urbanization
- Characterized with area having severe polluted area
- Fish farming, Fish-lotus, seed production and ornamental fish farming



### Social -economics

- 2,5 millions VND/head/year
- 10% poor people

## PCA- XAÕ PHONG PHUÙ

(2)

### Development history

- 1975 until now: rice planting
- From 1990: fish farming and lotus planting
- From 1996: Mimosa planting
- From 1999 until now : Flooded and black water
- Plan until 2010: Urbanization



### Constrainst and oppotunities of the village Phong Phù

Xeáp haing	Constrainst		
	Man	Woman	Common
1	Pollution	Pollution	Pollution
2	Flooded	Flooded	Flooded
3	House moving	House moving	House moving
4	Medicine to treat fish disease		Medicine to treat fish disease
5	Diseases		Diseases

## PCA- XAÕ ÑOÃNG THÃĨNH

(1)

### Characteristics

- Peri-urban in upland of North East of HCM, having fish farming
- Not having sewage of HCM
- Rice, Livestock (pig, beef), fish farming



### Social-economics

- Not immigrants
- Not farmine householders, but poorer than other vilgges near the city
- Land in the village is the reserve for agriculture land of the city

## PCA- XAÕ ÑOÃNG THÃĨNH

(2)

- Rice and livestock (chicken and pig raising) is long time ago
- 1992: raising cow for milk production and well developed sicne 1997
- 1998: start fish farming
- In 2000 has pollution from industries park



	Constrainst		
	Mansupply	Woman	Common
1	Tech/Credit	Credit	Credit
2	Seed supply	Output	Technique
3	High price of	Pollution	Pollution
4	Pollution	Water dumping site	Otput
5	Seed price	Acid soil	Technique
6	Output	Flood	Dumping site
7	Seed production	Seed	Acid soil
8			
9			

## PCA- XAÕ BÌNH MYÕ (1)

### Characteristics

- Peri-urbans of Củ Chi district
- Orientation for fish farming development (City planning)
- Not receiving city sewage
- Rice, livestock (pig, beef), fish farming, lotus, morning glory



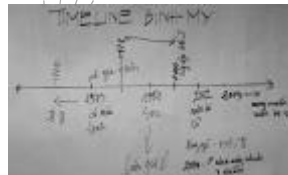
### Social-economics

- Poverty is eliminated
- Rich (50-60 triệu/hoà): 10%
- Average (30-40 triệu/hoà): 60%
- Poor (10-20 triệu/hoà): 30% hoả

## PCA- XAÕ BÌNH MYÕ (2)

### History

- before 1975: rice, sugar cane
- 1975: Fish farming
- 1978, severe flood fish escaped
- 1997: lotus development
- 2001: Beef, milk producing cow, fish



### Constraint and opportunities of the village Binh Myõ

Xeáp haing	Constraints		
	Man	Woman	Common
1	Output	Output	Output
2	Technique	Flood	Technique
3	Disease	Pollution	Diseases
4	Seed, fertilizers	Acid soil	Pollution
5	Pollution	Credit	Flood
6	Flood	Seed, fertilizers	Seed, fertilizer
7	Acid soil	Technique	Acid soil
8	Credit	Disease	Credit

## FISH AND AQUATIC PLANT MARKET

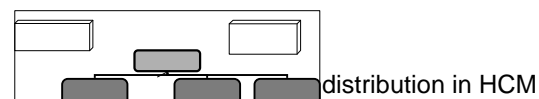
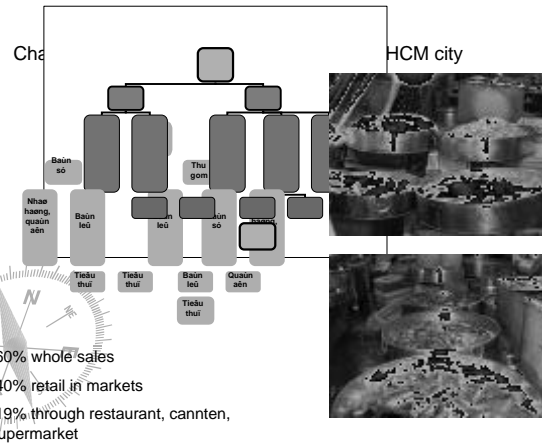
Thõ trõõng cau nõõc nõõc vào rau thuý sinh tại TP HCM :

- Freshwater fish production in peri-urban: 8% of the demand of the city
- Aquatic plant in peri-urban: 90% of the demand

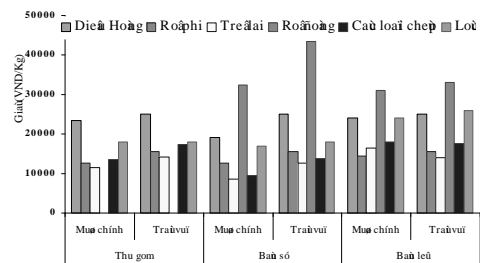


### Surveys

- 67 markets (18 wholes sale, 49 retail)
- 43 middleman
- 46 wholesman
- 218 retail man

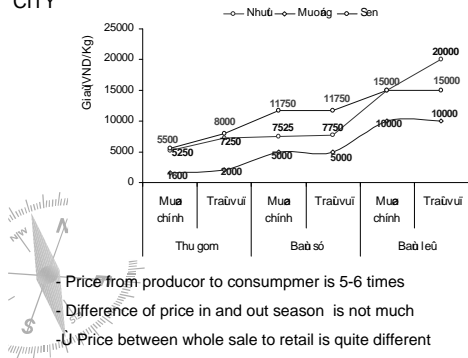


## FISH PRICE IN DISTRIBUTION CHANNEL



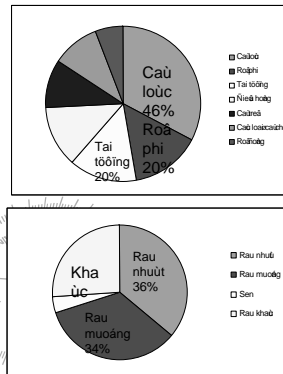
- Price from producer to consumer is quite different (1,5 -2 times)
- Price in season and out of season is different 1,5 times
- Price is reduced in order of roả nõõng, nõõc nõõng, loũc, cauõ loãõ cauõ chẻũ

**AQUATIC PLANT PRICE IN DISTRIBUTION CHANNEL IN HCM CITY**



- Price from producer to consumer is 5-6 times
- Difference of price in and out season is not much
- Price between whole sale to retail is quite different

**CONSUMPTION BEHAVIOR**



The most savory is in order of :  
Càulôc, rôa phi, tai tôông

- The most savory vegetable is in order : Rau nhuôt, rau muaông  
- Sen ít hõic òa thích

**The SOS workshop (1)**

- Time: 9<sup>th</sup> Dec. 2003
- Place: University of Agriculture and Forestry, HCMC
- Stakeholders:
  - Producers: 10
  - Market actors: 12
  - Government officers: 31

**The SOS workshop (2)**

- Activities:
  - Validations of research results
  - Filling missing issues/persons
  - Clarifications of important issues
  - Definition of next research and action agenda
- (on the basis of stakeholders' participations)

Stakeholder	Producers (% responses)	Market actors (% responses)	Government officers (% responses)	Other stakeholders (% responses)
1	... (text)	... (text)	... (text)	... (text)
2	... (text)	... (text)	... (text)	... (text)

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