#### 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

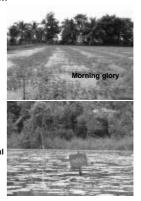
-Aquatic productions in Peri-urban - Fish farming (ponds , rice-fish faring, cage culture)

- Aquatic plants (Morning glory, Mimosa, Lotus, Duckweed) - Aquatic production systems in

wetland, flooded area prone to be polluted with sewage.

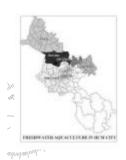
- Food production systems of poor people m

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



#### Aquatic food production in HCM (Hoait noang saûn xuaát thuûy saûn ven ñoâ TP Hoà Chí Minh)

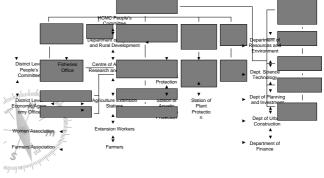
-Peri-urban of HCM city



- In freshwater area not including marine and brackish of shrimp farming -Focus on peri-urban districts (BìnhChaùnh, Hoác Moân, Quaän 9, Cuû Chi) 90-95% aquatic production



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





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#### SITUATION APPRAISAL OF PAFPS USING PCA (1)

#### PCA ??

- Modified PRA method
- Understand the production situation
- and livehoods for peri-urbans
- Participattion of local people
- 4 sites were choosen, characterizing PAFPS in HCM

-Aáp 5, Xaõ Phong Phuù, Bình Chaùnh:

- Fish faring, lotus planting and seed
- production -Aáp 5, Xaõ Ña Phöôùc, Bình
- Chaunh: Fish farming, aquatic plants
- Aáp 1, Ñoâng Thaïnh, Hoác Moân
- Fish farming - Xaõ Bình Myõ, Cuû Chi: Fish



#### PCA- XAÕ ÑA PHÖÔÙC (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

Socical-economics

-Not much immingrants, mainly householders living there, immigrants in village (30/565 hoä)

-Not farmine family, living standard is not so different except householder having commerce

- Most farmers practice fish farming, Kniting and working in factories nearby

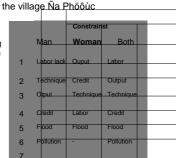
### PCA- XAÕ ÑA PHÖÔÙC (2)

History of the production -Before 978: rice and vegetables

- From 1979: Fish farming -1991-1995: Freshwater prawn farming until 1995 stop farming due to pollution -2000-2002: Black water reduced



### Constrainst and oppotunitites of



## PCA- XAÕ PHONG PHUÙ

## (1) Characteristics

-South HCM, 17 km, severely polluted and impacted with the urbanization

-Chacterized with area having severe polluted area -Fish farming, Fish-lotus, seed

prodcution and ornemental fish farming



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



### PCA- XAÕ PHONG PHUÙ

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### (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



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	nstrainst and oppotunitites of the age Phong Phuù						
Xeáp		Constrainst					
haïng	Man	Woman	Commo	n			
1	Pollution	Pollution	Pollution				
2	Flooded	Flooded	Flooded				
3	House moving	House mouving	House moving				
4	Medicine to treat fish disease		Medicine to treat fis disease ù	sh			
5	Diseases		Diseases				

### PCA- XAÕ ÑOÂNG THAÏNH

## (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

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Social-economics

- Not immigrants

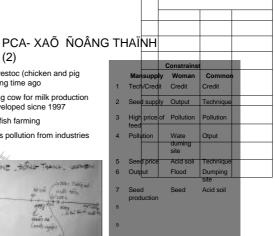
- Not farmine householders, but poorer than other villges near the city -Land in the village is the reserve for agriculture land of the city 700/00/0110/011





-In 2000 has pollution from industries park





### PCA- XAÕ BÌNH MYÕ (1)

#### Characteristics

Junhunhunhunhunh

Social-economics -Povery is eliminated -Rich (50-60 trieäu/hoä): 10% -Average (30-40 trieäu/hoä): 60% -Poor (10-20 trieäu/hoä): 30% hoä

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



#### PCA- XAÕ BÌNH MYÕ (2)

History -before 1975: rice, sugar cane

-1975: Fish farming -1978, severe flood fish escaped

- 997: lotus development
- 2001: Beef, milk producing cow, fish



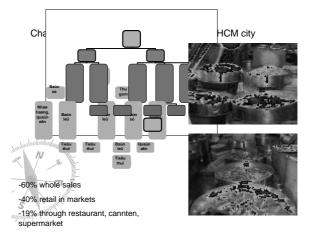
		· /					
Constrainst and oppotunitites of the							
vill	age B	ình Myõ			_		
	Xeáp		Constrains				
	haïng	Man	Woman	Common			
	1	Output	Output	Output			
	2	Technique	Flood	Technique			
	3	Disease	Pollution	Diseases			
	4	Seed,	Acid soil	Pollution			
		fertilizers					
	5	Pollution	Credit	Flood			
	6	Flood	Seed,	Seed,			
			fertilizers	fertilizer			
6. E	7	Acid soil	Technique	Acid soil	_		
46			S				
	8	Credit	Disease	Credit			

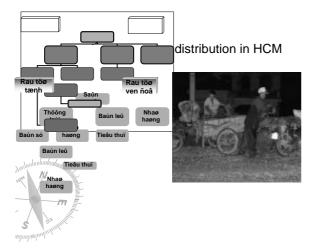
#### FISH AND AQUATIC PLANT MARKET

Thò tröôøng caù nöôùc ngoĩt vaø rau thuûy sinh taĩi TP HCM : -Freshwater fish production in peri-urban: 8% of the demand of the city -Aquatic plant in peri-urban: 90% of the demand

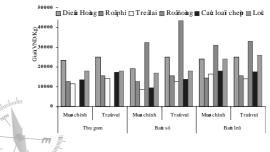








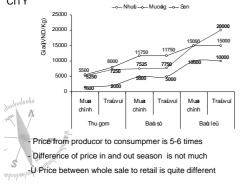
#### FISH PRICE IN DISTRIBUTION CHANNEL

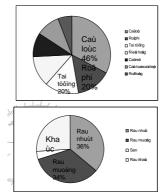


Price from producer to consumpmer is quite different (1,5 -2 times) Price in season and out of sease is different 1,5 times

-Price is reduced in order of roâ ñoàng, ñieâu hoàng, loùc, caùc loaøi caù cheùp

## AQUATIC PLANT PRICE IN DISTRIBUTION CHANNEL IN HCM CITY





CONSUMPTION BEHAVIOR

The most savory is in order of : Caù loùc, roâ phi, tai töôïng

The most savory vegatable is in order : Rau nhuùt, rau muoáng
Sen ít ñöôïc öa thích

### The SOS workshop (1)

- ∠ Time: 9<sup>th</sup> Dec. 2003
- Z Place: University of Agriculture and
- Forestry, HCMC
- Stakeholders:

- Producers: 10
- Market actors: 12
- Government officers: 11

### The SOS workshop (2)

### ✓ Activities:

- Validations of research results
- Filling missing issues/persons
- Clarifications of important issues
- Definition of next research and action agenda

s (on the basic of stakeholders' participations)

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r	Compared International Academ Sector Association International International Academ International In	To sharp the matter of extension in order to association appendix to perform performance and an architecture of di- performance and an architecture of the architecture of the architecture of the	To complete the industrial task (or go in add, inclusion, edg) installand for the	To devide proper plant for the daved proceed of the city (41) Ray cauge of breach plant (42) Societ of the balance of the balance	Tertimentale technique cette particular i veste rahecos, citoling poeti (Nobil) valor (Nobil) valor (Nobil) valor (Nobil) (Nob	The model is a constrained to opportune liquid of our perception liquid out perception and the low-constrained of the low-constrained of the liquid of the state of th
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Numk	Producers ( % respected)		Institutions ( % responses)		Markets (% response)	
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