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**Participatory Community Assessment in Da Phuoc commune,  
Binh Chanh district of Ho Chi Minh City, Vietnam**

**From 15<sup>th</sup> October to 22<sup>nd</sup> October 2003**

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SOUTHEAST ASIA**

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## **Introduction**

### ***1.1 Methodology***

The activities for the Participatory Community Appraisal (PCA) were performed from October 15<sup>th</sup> to October 22<sup>nd</sup> 2003. At first we contacted the Head of Da Phuoc Commune on October 16<sup>th</sup> 2003 to collect some general information about Da Phuoc commune and village such as the status of agricultural production systems, the life of people, and the wealth/socio-economic ranking of households. Village 5 was chosen to be a representative community suitable for the objectives of the PAPUSSA project on the basis of information and ideas of the Farmers Association Chairman from this first contact. Further important information was supplied to select participating households and identify basic information about the village by the Head of the village.

After this selected representative households of this community (Village 5) were invited to participate in the PCA meeting carried out on October 22<sup>nd</sup> 2003 at Mr Tran Chien Thang's house located in Village 5, Da Phuoc commune. Participants involved included: farmers who culture fish, rice, vegetables, and produce fish seed, poultry, cattle, staff of the local public health station, people representing the Farmers Association and Women's Association. Participants were divided into two groups on the basis of gender. Because almost all of the area of land is agricultural in this village, so participants were from agriculture production households. From information about wealth ranking, almost all households were ranked into one level. So we didn't rely on wealth ranking to divide groups. The ages of the women's group was relatively equal, about 30 to 40 years old, while the age of men's group ranged from 25 to 60 years old.

### ***1.2 Socio economic information about the village***

The total of households in this village is 565 with a population of 2975. There are 30 households which have moved from other places. This amount of migrated households is changing every month. Their work depends on the seasons. Village 5 has the largest amount of households involved in aquaculture in Da Phuoc commune. However the general agricultural area is in a majority with 198 hectares.

Although we didn't get statistical data of the total area of aquaculture in the village, the Head of this village said that almost all households culture fish with different pond sizes depending on the conditions and status of each household. Fish is cultured on a household scale. There are rice-fish culture models or garden-pond-cage systems. Besides agricultural activities, people also knit sedge mats, make barbed wire and are working in different types of factories. Most of the younger people are going out for other jobs which are mainly in construction or factories (e.g. leather, food, shoes, etc.). Older labourers tend to till the fields. So availability of labour for agriculture is an important problem for people in this village. They must employ labour from Nha Be district, HCMC or other provinces with high rent/hire price. At present the living standards of these labourers is improved, so hiring of labour for agriculture is difficult.

## **II. General characteristics of the community**

\* This is the community mapping of village 5, Da Phuoc commune drawn separately by the 2 groups (men's and women's group) in the meeting.







- Changes in seasonal weather information supplied by men and women are similar. The rainy season is from April to December with the dry season from January to March.
- Later period of rainy season is usually flooding when it is difficult to farm. For women flooding causes pollution because they can't control the water source supply.
- In the rainy season villagers can use water from local wells for drinking.
- In the dry season (February to March), the water source is polluted because the water level of the river is very low and changes of water are minimal. These are ideas of the men, but women didn't mention pollution in the dry season.
- Besides, pollution from Kim Hang and the plastic factory is noted by them. These factories they believe cause water source and air pollution, also poor air quality and skin disease.

\* For diseases of fish: they don't occur during the seasons and appear not to be an important problem for them in this village.

\* Resource mapping was also carried out and described as part of community mapping.

**Table 3 List of inputs and outputs for their agricultural production systems from men's and women's opinions**

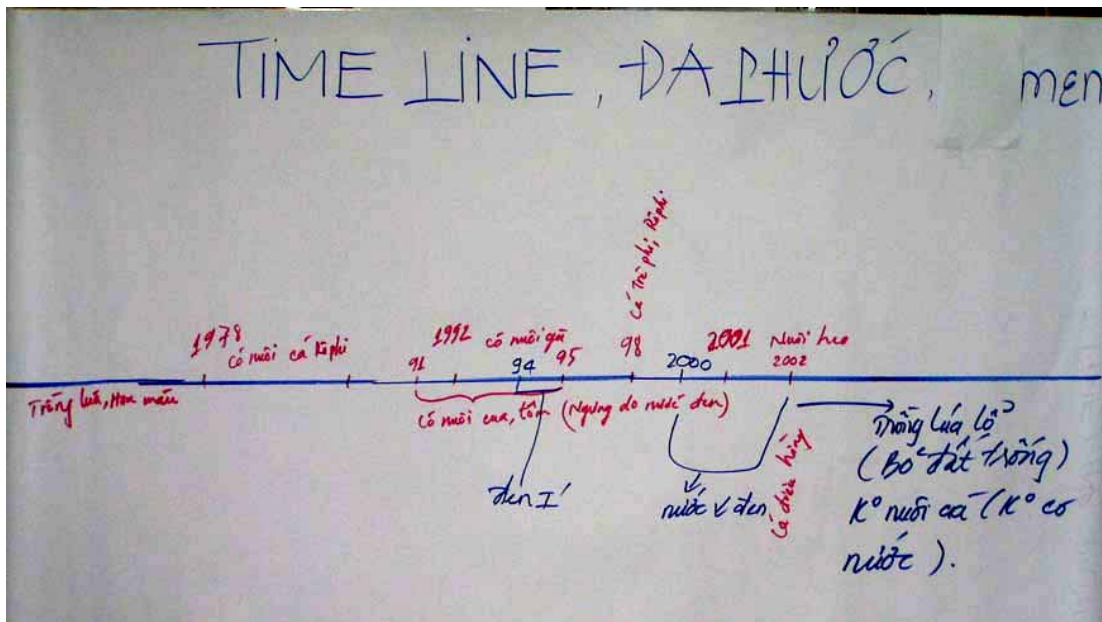
Men		Women	
Input	Output	Input	Output
Fish, rice and vegetable seed	Fish, pig and chicken	Fish, rice and vegetable seed	Fish, pig and chicken
Feed for fish	Lotus, vegetables	Cattle and poultry waste	
Fertilizer		Waste products used as fish feed	
Fish disease drugs		Pelleted feed	

- Main inputs for production are bought mainly within local area, they can buy seed fish from this village or from Thu Duc district.
- Output of fish is sold mainly to fish traders.
- Rice is consumed by the farmer and also sold to traders.
- Vegetables and lotus produced are also consumed by the farmers but most is sold to the markets and traders.

### III. History of the village and important events - Timelines

Scheme of important historical events of the village

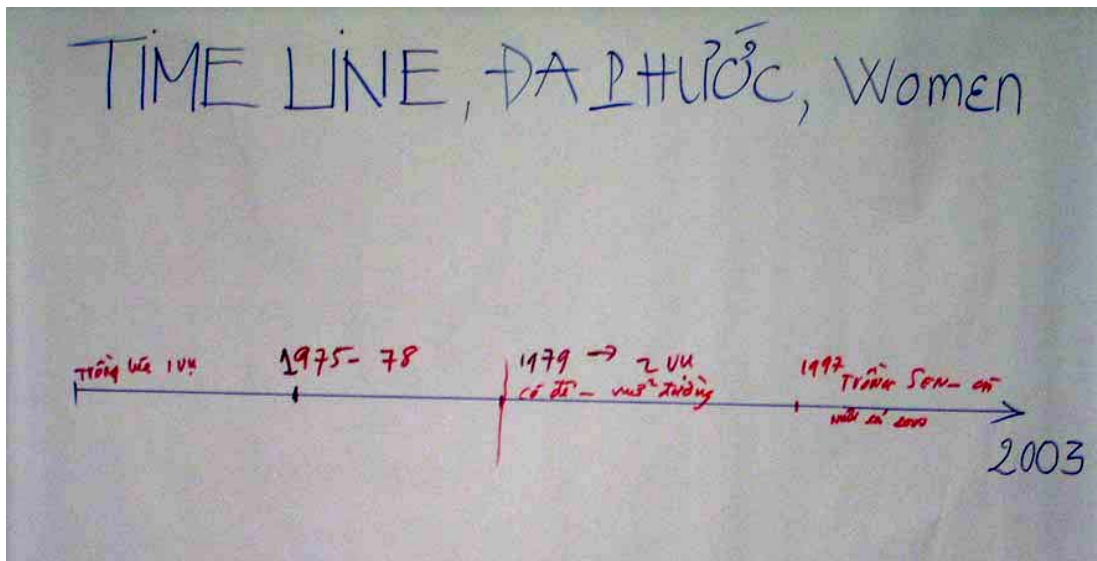
#### 3.1 Information from men



**Figure 3. Timeline of important historical events (from men)**

- Before 1978: the main agricultural activities were rice and morning glory cultivation.
- In 1979, they held back the dike to prevent flooding, so began culturing fish
- Period of 1991-1995, villagers cultured freshwater prawn and crab with high economic benefit. By 1995 they stopped culturing because of water source pollution from the nearby factory.
- Period of 1992-1994 they experimented with industrial/factory chicken culture but achieved low profits, so they stopped in 1995.
- In 1998 they began culturing walking catfish and tilapia because they are considered more suitable fish species for culturing in polluted water.
- Period of 2000-2003, pollution of water source was decreasing because of relocation of factories
- 200-2002, rice and vegetable culture are both developing strongly.
- 2002, inside area of the dike is vacated because of low effectivity of rice cultivation and didn't culture fish because of insufficient water in the dry season.
- 2003, began to culture red tilapia, and other species. They said that only fish culture corresponded with this village just because they found it more profitable from practicing fish culture than other agriculture activities and somehow they feel better to culture fish.
- They haven't changed to large scale fish culture yet, because water is seasonally lacking, capital is really a constraint as is the water pollution problem as well.

### 3.2 Information from women



**Figure 4 Timeline of important historical events (from women) in the community**

- Majority are immigrants, so they don't know clearly about past historical events.
- In 1997 fish-lotus culture began developing because fish and lotus are suitable with polluted water source and flooding.
- By 2000 fish culture developed strongly because of influence of fish culture from other areas.

***\*Some other observations***

- Almost all households inside area of the dike culture fish. Majority of their ponds are average to small size from 500 to 5000 m<sup>2</sup>
- Cattle culture isn't popular in this village.
- Rice-fish culture is carried out but farmers incorrect/unsure about the technology required because extension classes about this model haven't yet been organized.

**IV. Social characteristics of the selected community**

**1. Wealth being**

- The Head of Village 5, Da Phuoc commune said that people of this village are now completely out of poverty.
- The economic conditions of people in this village are relatively fine
- Better-off households are usually doing some type of business and only small proportion of households are ranked into this category
- Wealth ranking isn't clear or easy to carry out in this village.
- For the Farmers Association Chairman of this village criteria used to rank wealth included:

- + Production capital
- + Land and ownership of land

- + House, means of transport, means to relax, equipment
- + Ownership of well

## **2. Important festivals**

The Lunar New Year is the biggest annual festival in which all of the local villagers participate. Buddhist and Catholics participate in their individual religious festivities. Also they organize weddings, death anniversaries which can be organized any time and in which many people are invited to participate.

## **3. Health characteristics**

The role of a health public station in this village isn't important for them, poorer people go there to be examined and treated. They usually fall ill with stomach diseases mainly diarrhea. This disease doesn't depend on seasons but seems to occur throughout the whole year. Because of better economic conditions, people usually go to the hospital or individual doctors to examine or treat them. Before, the public health station shared out medicine to poor households, but now the number of these households decreased as there are fewer and fewer poor households. Besides employees of public health stations give medicine prescription to patients, after which they go and buy medicine themselves at a local pharmacy.

People also fall ill with skin disease, women at a higher rate than men. Health employees believe that the cause of this disease is people working daily in contact with polluted water. It is common.

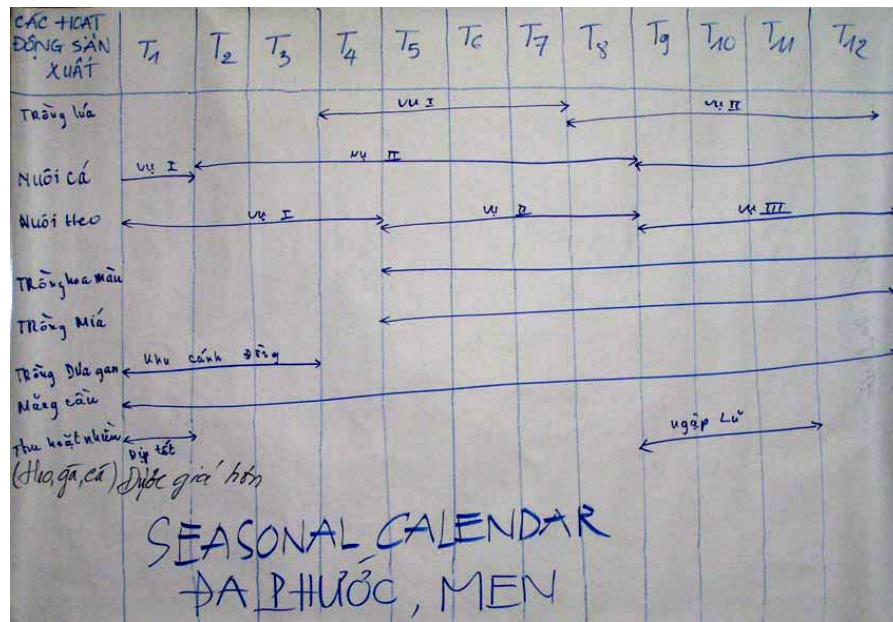
Other diseases mentioned included leprosy, tuberculosis, nervous diseases etc., these appear less commonly and are normally treated with free medicine.

For dangerous and pressing cases, they can be moved to hospital. Farmers said that the health of the community generally decreases nearby, they usually fall ill with tiredness and high blood pressure with high death or invalid risk.

## **4. Seasonal calendar**

Seasonal calendars from men and women are presented in Figures 5 and 6.

### **a. Information from men**



**Figure 5. Seasonal calendar of agricultural production (from men)**

- Rice is cultured in two crops per year. First crop is from April to July; second crop is from August to November. In the dry season they don't till the fields. The fields are also used to farm casaba melon.
- Fish is cultured two crops per year. The first crop is from February to August and the second from September to January the following year.
- Pigs are raised in three rearings per year. The first is from January to April, the second from May to August, and the third from September to January the next year. They usually produce many in the third rearing which can be sold for the Lunar New Year festival.
- Vegetables are mainly cultured in the rainy season, from May to December. They don't produce them in the dry season because of the expense of watering the plants.
- Casaba melon, cucurbit, tomato and okra are cultured in the dry season.
- Nearby production of casaba melon is decreasing but production of okra, cucurbit and tomato is increasing.
- Plants and fish are cultured mostly in Lunar New Year.
- Every year flooding is from September to November, when it can be difficult to farm.
- The dry season is from January to March.

**b. Information from women**



Figure 6. Seasonal calendar of agricultural production (from women)

- Fish is cultured from January to September. From October to December they stop farming because of flooding and pollution.
  - Pigs are raised from January to December. They don't rear so much from October to December because of strong competition of produce from west of HCMC.
- Chicken and duck are cultured from January to November, and sold in December.
- The season for integrated fish-lotus farming is from April to October. During the first period fish are stocked in low densities, and then when the lotus plants are older the stocking densities of the fish are increased.
  - There are two methods of rice cultivation practised, one or two crops per year. For one crop - rice culture, it is from June to October. For the latter the first crop is from March to July and the second from August to December.

\* The information from the men and women is similar except for details about their fish farming practices. For men flooding and effects of pollutants aren't considered that important to fish culture since to lessen flooding farmers can reinforce pond banks and put in fence netting. While women supply the opposite idea that fish isn't cultured in flooding season because of potential loss of stock and pollution. Women supplied information about one crop of rice cultivated per year, men didn't. This difference only supplements to inform of the differences in production systems, and isn't so much a different view between women and men.

## **5. Types of foods and sources**

Type of foods and consumption as well as their annual fluctuation within the village from men and women is presented in Figures 7 and 8.

### **a. Information from women**

- Rice is one of the main, staple foods consumed the whole year round and isn't in short supply. This they produce themselves and consume.
- Other kinds of foods include meat and spices which are bought throughout the whole year.
- Almost every household has a well and uses water from it for everyday living needs.
- Fruit is sometimes consumed. Only Custard-apple is produced, with the majority of fruit being bought.
- Aquatic plants consumed are mainly home produced such as water mimosa, morning glory and lotus.
- They also consume wild caught natural prawns

### **a. Information from men**

- Pig, chicken and duck are mostly consumed from December to January.
- Cultured fish is consumed throughout the whole year in many different forms such as fresh, salted and dry fish.
- Wild fish can be caught from August to December.
- Marine fish is consumed from January to July because of a shortfall of wild fish.
- Morning glory is generally consumed throughout the whole year.
- Other kinds of plants (vegetables) produced from May to December are consumed e.g. colocynth, cucumber. Previously in the remaining months they had to buy, but now they can produce plants the whole year round because they have well water to irrigate.
- Many kinds of nuts must be bought to have throughout the whole year.
- Household expenditure on food is highest during the lunar year holidays.
- Specialties such as dog, goat and bull only are consumed at parties. Dog is also reared especially for consumption.



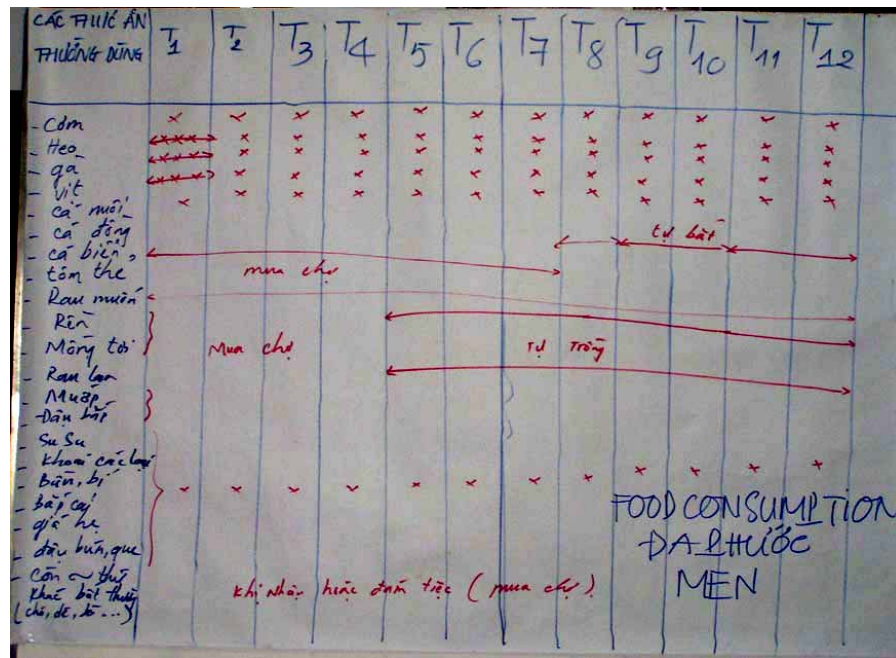


Figure 7 Types of foods, source and fluctuation every month (from men)

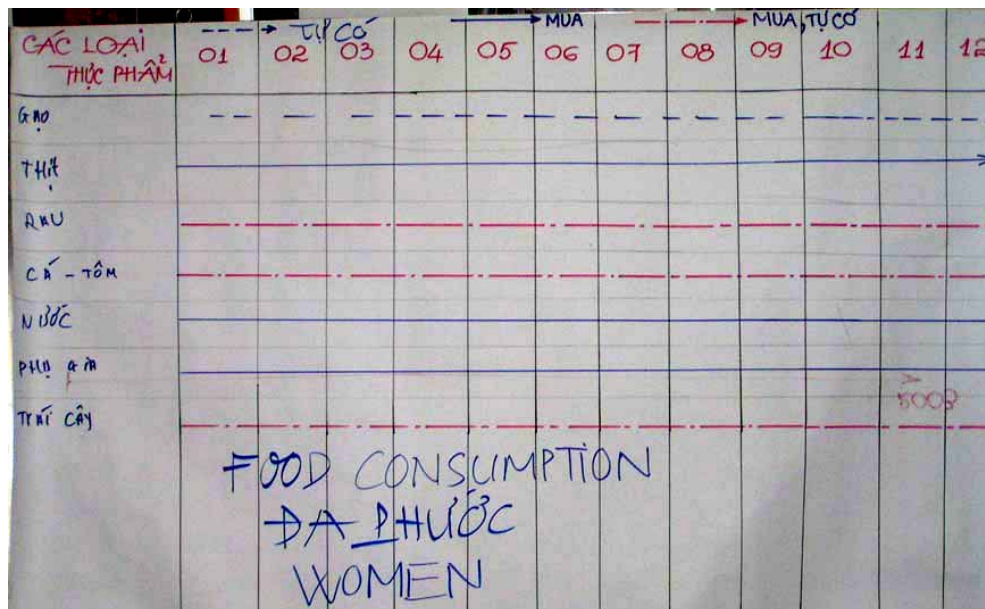


Figure 8 Types of foods, source and fluctuation every month (from women)

## 6. Daily activities

### \* Women

- For the commune health official, she works from 7.30 - 4.30pm.
- Farmers normally work from 7-10 am (take care of fish or vegetables if they have roles in doing aquaculture).



- Some of them have trading activities in the morning after which they take care of fish and check ponds and plants in the afternoon.
- They go to bed at around 9 pm

**\* Men**

- They usually have breakfast and coffee between 6 to 7 am.
- The farmer works from 7 to 11 am in the field.
- They have lunch and relax from 12 - 1pm.
- They then work from 1- 4pm, but they usually relax in the afternoon.
- In the evening they check the pond(s) and ensure security of the fish and the farm.
- In general the time they take for caring of their fish and pigs is less than for their plants and rice.



Figure 9 Scheme of daily activities of men

- Morning activities
- Fish pond caring
- Pig caring
- Lunch break
- Other activities
- Dinner
- Recreation
- Night sleep

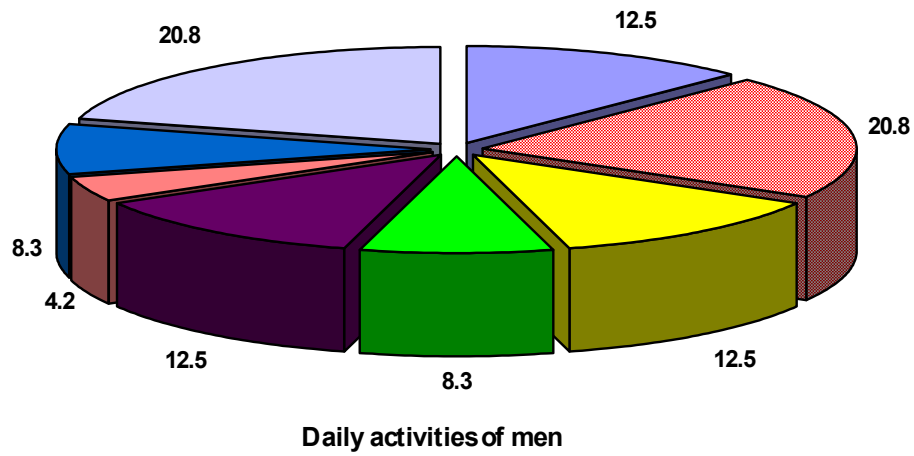


Figure 10 Distribution of time of daily activities

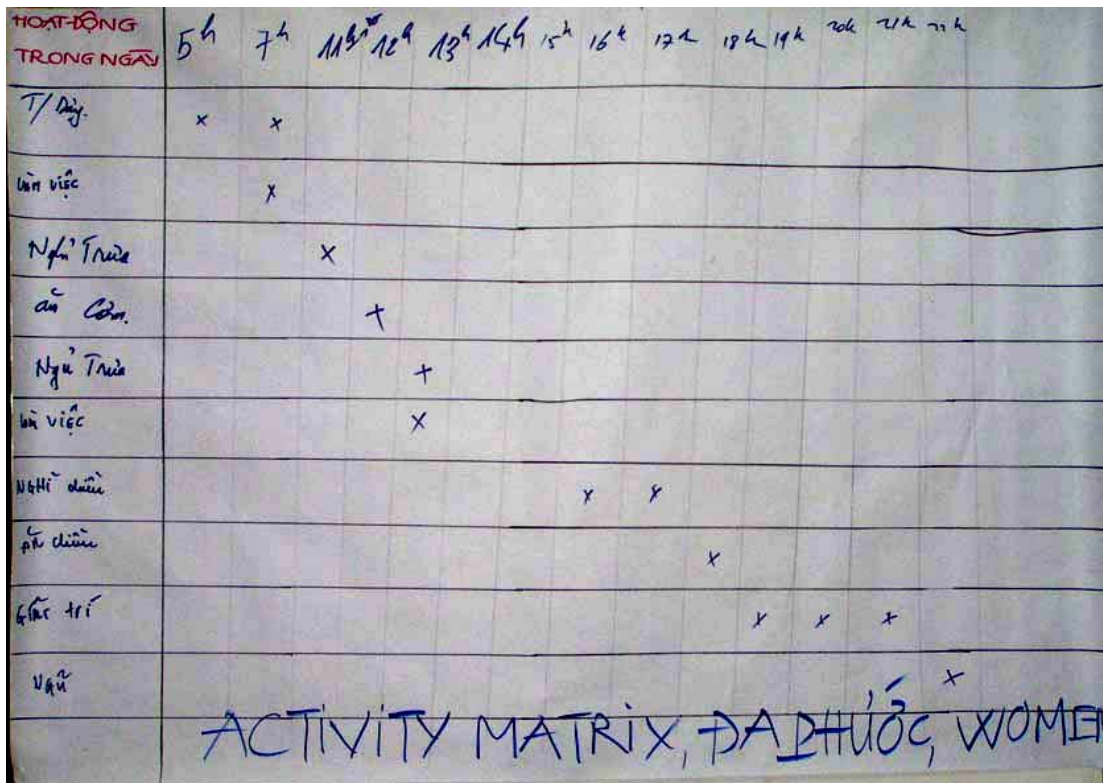


Figure 11 Scheme of daily activities of women

## V. Problem ranking by participants

Problems included:

- It is difficult to rent/hire labour for agricultural activities because of high price
- They feel limited in approaching new technology, and they need support and training about technology to provide increases in their production.
- Output of goods is limited.
- They need capital support to intensify their production systems
- Flooding every year is also a problem but they feel they can overcome it.
- Industrial pollution was a problem but farmers feel it becomes better as reallocation of industry and factories is being encouraged by the government.
- Land is subsidized which influences their production activities.

**Table 4 Problems and ranking by farmers**

Rank	Problems		
	Men	Women	Pool
1	Price and availability of labor	Marketing of products	Price and availability of labor
2	Lack of new techniques	Lack of capital	Marketing of products
3	Marketing of products	Lack of new techniques	Lack of new techniques
4	Lack of capital	Price and availability of labor	Lack of capital
5	Flooding	Flooding	Flooding
6	Water pollution	-	Water pollution
7	Subsidence		Subsidence

Table 4 illustrates the difference between men's and women's ideas about their problems.

Men said the most important problems were: (1) price and availability of labour, (2) lack of new techniques/training for their farming, (3) marketing of products, (4) lacking capital, (5) flooding, (6) water pollution and (7) subsidence.

Women said: (1) marketing of products, (2) lack of capital, (3) lack of new techniques/training, (4) price and availability of labour and (5) flooding.

However there are similarities between of men and women in the first three problems.

Marketing of products and capital is a concern for both sexes, so below these general ideas are summarized:-

Problem ranking of both two groups aggregated together were: (1) Price and availability of labour, (2) Marketing of products, (3) Lack of new techniques/training in agriculture, (4) Lack of capital, (5) Flooding, (6) Water pollution and (7) Subsidence.

KHỔ KHĂN VÀ TRỞ NGẠI	NAM	NỮ	TỔNG CỘNG	XẾP LOẠI
Thiếu vốn	15	19	34	4
KỸ THUẬT	33	16	49	3
ĐẤT LÚN	4		4	7
ĐẦU RA (Giá trị)	23	27	50	2
Nhân công mất (thiếu kỹ (âm))	38	13	51	1
Nước lũ	11	9	20	5
Nước đục	7		7	6
PROBLEM RANKING ĐÀ PHƯỚC				

Figure 12 Problem ranking of community

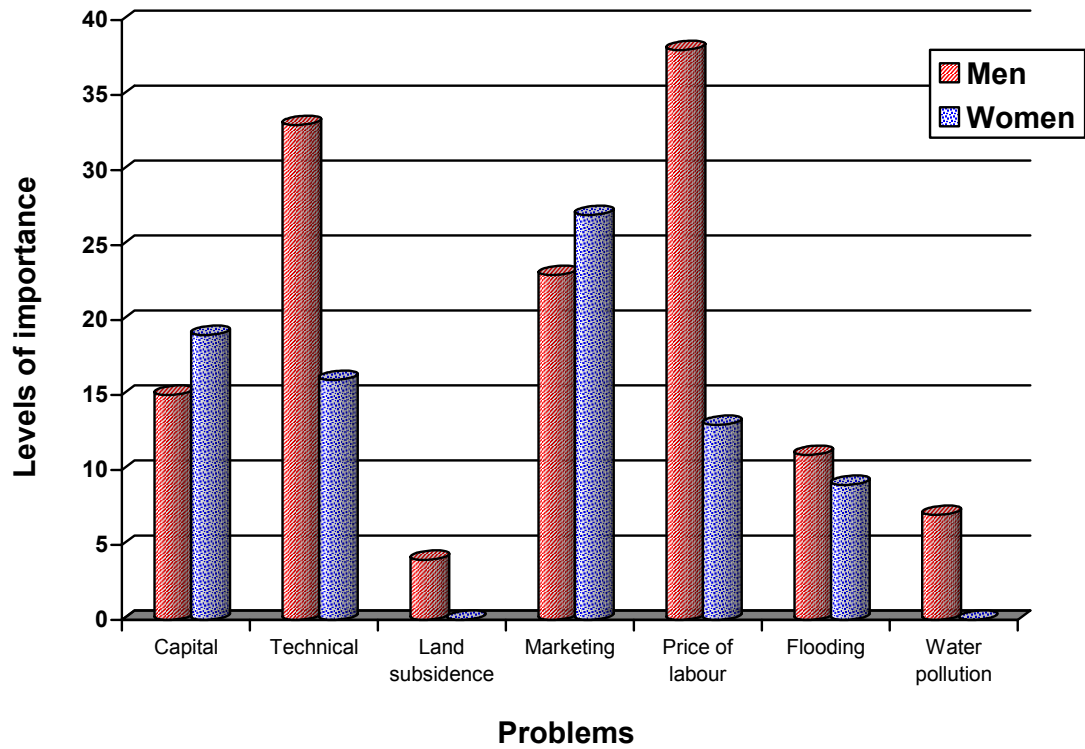


Figure 13 Problems and ranks according to men's and women's opinions

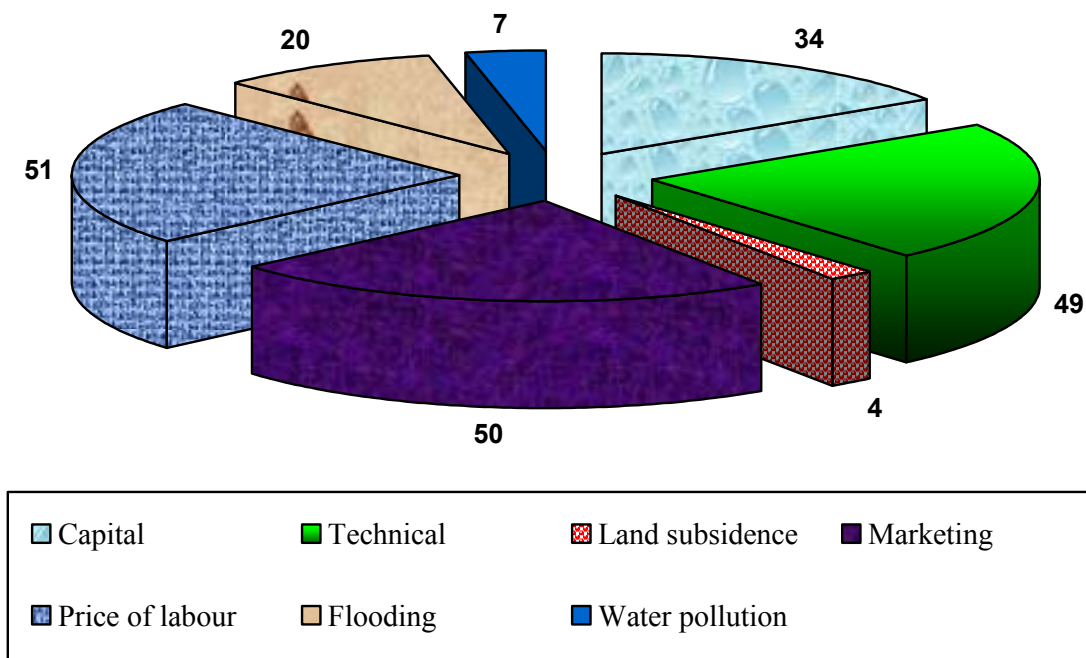


Figure 14 Problems evaluated by farmers as a whole group

## **VI. Summary points**

- Majority of households in this village practice aquaculture as their main activity. Lotus is also cultivated but not so commonly.
- Production scale is small; products are mainly consumed by farmers' households themselves. In most cases, households usually have many members working in different occupations and the person who is involved directly with farming activities is rather older in the family.
- Potential sources of water pollution are now fewer than Phong Phu commune.
- Price and availability of labour for agriculture is the main problem for them.
- They need technology support in the form of training and materials/literature/booklets etc for their agricultural activities.
- Higher income households have little contact with public health stations.
- Skin diseases are quite common in the community.
- Women sometimes participate in agriculture and aquaculture production.
- Aquaculture products are an important part of their meals.
- They work mainly in the morning. For fish they spend relatively less time compared to their other types of agricultural farming.
- They realize the positive influence of relocation of industrial factories for their local water quality.