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**Participatory Community Assessment in Binh My Commune,  
Cu Chi District of Ho Chi Minh City, Vietnam**

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## **I. INTRODUCTION**

### ***1.1 Methodology***

The initial appraisal steps of the Participatory Community Appraisal (PCA) were carried out on the 30<sup>th</sup> October and the 12th November 2003. The first day was the initial visit meeting with the Head of the village, commune or district to introduce the objectives of the project, PCA activities and the people who would be involved. The Head of Commune supplied information such as the agricultural production situation, inhabitants' livelihoods, and poverty/prosperity classification of the village inhabitants. Some villages of the community which were chosen have extensive areas of aquaculture according to the ideas of officials and the Head Farmers. The Head of the village was an important informant to select farmers to join the Participatory Community Appraisal (PCA). The Participatory Community Appraisal was carried out on 12<sup>th</sup> November 2003 with representatives of Binh My Commune.

The participants from the community included: fish farmers, rice farmers, aquatic plant farmers, plant growing and domestic fowl – poultry farmers, the Head of Farmers and the Head of the Women's Union. Then two groups were formed by dividing participants by gender. Binh My commune is almost all agricultural land, so those participating are mostly from agricultural production households. Besides this, this commune was issued a certificate for eliminating poverty by the Government, so almost all households are estimated to be in a stable economic condition. For this reason farmers were not grouped in the PCA into different wealth ranking groups or by prosperity status. Due to the quantity of women in the PCA being few (only one farmer and woman official), the appraisal was conducted in only one group rather than two as in other places. The average age of the PCA participants was in the range of 45- 60 years-old.

### ***1.2 General Binh My commune – Cu Chi district***

Binh My has 3126 households with a population of 13,921 people divided into 10 villages and 88 sub-villages. There are 1492 households working in agriculture (including 706 households rearing livestock, 170 service businesses (truck lenders, construction material traders, etc.), 370 trade households, 197 involved in building and construction activities). Areas of land used for aquaculture are distributed throughout Binh My commune. Farmers invest very little capital in financing culturing fish, and the fish produced are mainly for their own family consumption. The main economic activities of inhabitants in this commune are lotus, morning glory and rice cultivation with 1186ha area of rice, 25ha morning glory and 11ha fish pond area out of 1999ha total of agriculture land area. However in the future Cu Chi district has been earmarked by City Development Plans as an area with fisheries potential and will be developed for aquaculture.

## II. General characteristics of the community inhabitants and their agricultural production systems

- Community map of Binh My commune – Cu Chi district completed by the participants of the PCA



**Figure 1** General map of Binh My commune – Cu Chi district

- Binh My commune is in the North of Cu Chi district and adjacent to Thu Duc and Hoc Mon districts. Although this commune is in peri-urban Ho Chi Minh city the influence of urbanization is presently very little. Following city development plans Binh My commune will become developed with aquaculture in the future.
- The main production activities are rice, lotus, morning glory, fish and fruit-trees (30 ha). Cultivating rice is the most effective activity of the commune and this is primarily grown in Doi Bon field
- Recently dairy cow rearing has been developed but there is a lack of capital for this.
- The main sources of water for agriculture are from Sai Gon River, Rach Tra River and smaller irrigation canals.
- In Binh My there are fertilizer and bran agents (sellers) for livestock and fish. The distance to these agents from the commune is around 8km (on the 8<sup>th</sup> road).
- In the village there is no traditional market, only small stalls or a temporary market
- There is a health service station near to the People's Committee building.
- There is a primary school, secondary school and 8 kindergartens but no tertiary education schools/colleges.

- Water quality is affected by a plastics factory and Dong Thanh rubbish dump in sixth village (fifth town) causing fish kills in the farmers' ponds.
  - Most fish farmers get their seed/fingerlings from Thu Duc, District 12. Red tilapia seed is supplied from Nhi Binh-Hoc Mon district and giant gourami seed from Go Vap district.
  - The commune is divided into several parts each of which is specialized for one type of agriculture product such as fruit-trees, rice-lotus integration, rice, fish and lotus.
  - It is especially immigrants from the Northern provinces who rent agricultural land to grow morning glory (at a rate of 2 million VND/year/2000m<sup>2</sup>).
  - Farmed fish are mainly fed using pig manure, rice bran, morning glory, other green vegetables, and duckweed. Pelleted feed is still used very little.
  - The small middle men are often buyers of agricultural products they then sell to Cu Chi and Hoc Mon markets.
  - For lotus traders they come directly to the farmers house to collect (rent labourers)
  - For rice, fertilizer and machine traders are the buyers
  - Growing fruit-trees: durian, mangosteen and mango (mainly)
  - Tea is also produced but information was not available to collect
- The weather seasons, changing climate and important seasonal events (from the seasonal calendar exercise)

**Table 1** Seasons and important weather events

	Month											
Events	1	2	3	4	5	6	7	8	9	10	11	12
<b>Dry season</b>												
<b>Rainy season</b>												
<b>Flooding</b>												

- The rainy season is from May-December and the dry season from January-April
- The rainy season is usually accompanied by light floods (normally 1- 2 days) which can sometimes affect agricultural activities. On average every 10 years there is a large flood lasting up to 1 month according to the farmers, which not only creates difficulties to agriculture activities but also seriously affects the inhabitants' livelihoods.
- Fish disease: the participants considered this to be not important because farmers culture fish on a small-scale, mainly for family consumption. They stated that fish disease appeared but troubled them rarely.

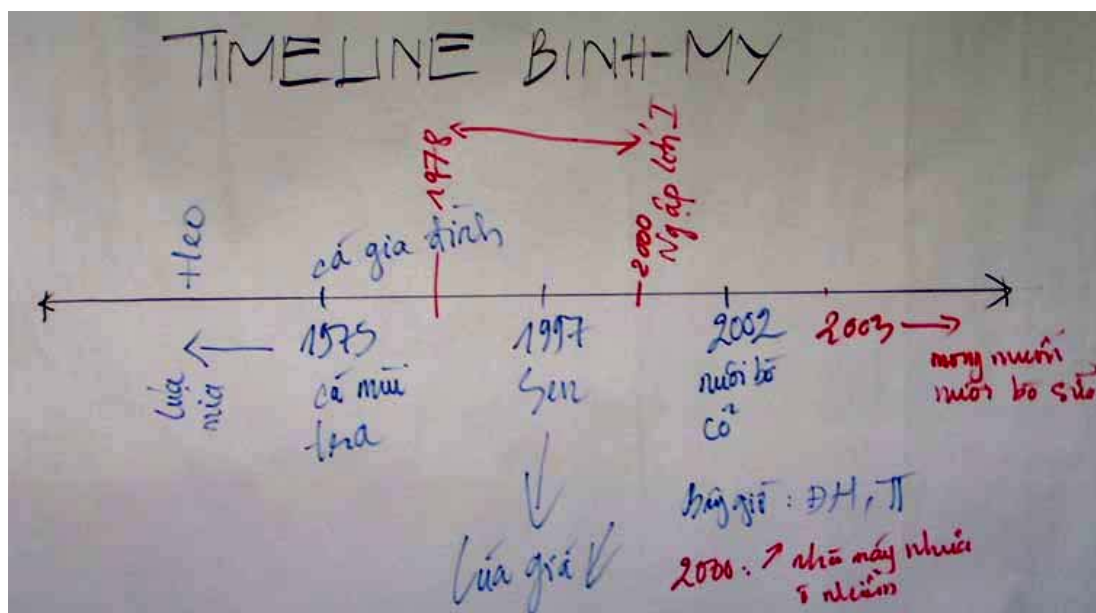
**Table 2** List of inputs and outputs of production activity (from resource mapping exercise)

Input	Output
Fish, rice, vegetable seed	Commodity fish, pig, chicken, rice
Food	Lotus, vegetables
Fertilizer	

- Most of the materials, services and inputs required in their agriculture and aquaculture production can be bought locally, however the distance to the fish feed agent is around 6km from Binh My. Generally fish farmers use mostly by-products to feed their fish.
- Morning glory and lotus are sold to traders; fish is consumed within the household.
- Rice which is grown is for family consumption and also sold to traders.

### III. Development history and important events affecting villagers livelihoods

Diagram of the important historical events



**Figure 2** The important historical events timeline

- Farmers have cultivated rice and sugar-cane since before 1975. They then cultured fish (catfish) on a household scale using ponds created from land digging/excavating in order to build their houses.
- In 1978, there was a large flood
- In 1997, due to unstable rice prices and high lotus price, lotus culture began to develop



- In 2000 flooding lasted 1 month causing significant damage to fruit-trees and rice cultivation.
- In 2001 a model of dairy cow, commodity bull and economic fish production (red tilapia, giant gourami, and climbing perch) began. In the future farmers would like to raise dairy cows, but they also believe they can develop aquaculture if there is the right technology available.
- In 2001 the plastics factory was opened.
- There is alum phenomenon of high acidity of water and soil in the period between dry and rainy season which has certain effects on agriculture and aquaculture activities

#### **IV. Societal characteristics of community inhabitants (those joining PCA)**

##### ***1. Poverty – prosperity classification***

Binh My commune was issued a certificate from the Government for eliminating poverty with income standard of 2.5million VND/year/capita in 2002 and 3.5million VND/year/capita in 2003. Furthermore farmers are assessed to be good producers, medium producers and fair producers based on the average income from their agriculture production.

- Good production: annual income from 50 to 60 million VND - 10% of HHs in the village.
- Passable good production: annual income from 30 to 40 VND - 60% of HHs in the village.
- Average production: annual income from 10 to 20 million VND - 30% of households in the village.

##### ***2. Festivals in the community***

Traditional Tet is the biggest festival of the community, the others relate to people who have Buddhist and Catholic festivals. They also have a party for ancestors and weddings during the year.

##### ***3. Community health***

They pay very little attention to their health. They often get skin diseases and nail fungus due to too much contact with water.

##### ***4. Seasonal calendar***

- Rice is cultivated 3 crops in a year: from December – March (the most effective period), April - July (lowest production) and August – December, parallel with duck farming
- Lotus is farmed all year-round, but productivity is lower in April – August than other months due to the rainy season.
- Fish is cultured 2 crops annually: April – September and September – March.
- Chicken production is mainly by releasing birds into the fields the whole year round

- Fruit-trees are harvested from June – July (mainly mango).
- Grass is grown all year around with price of 1,000 VND/bundle
- Dairy milk production occurs for 7 months of the year. Bulls are reared all year around
- Morning glory is grown the whole year round but they found difficulties in selling their product, they have to sell themselves in the markets. Morning glory is grown better in the dry season than in the rainy season.
- Land vegetables are cultivated all year around. In the dry season, their price is lower than during the rainy season due to high productivity in the dry season.
- This region is influenced by flood-tides (1-2 days/year) from October to November, with a high flood-tide every 10 years ( extensive flooding for up to 1 month)
- Because of the poor soil quality and lack of capital, farmers do not try to grow vegetables in the off season.
- Nowadays Binh My commune is supported with credit for farmers' capital investment to continue the development of aquaculture.

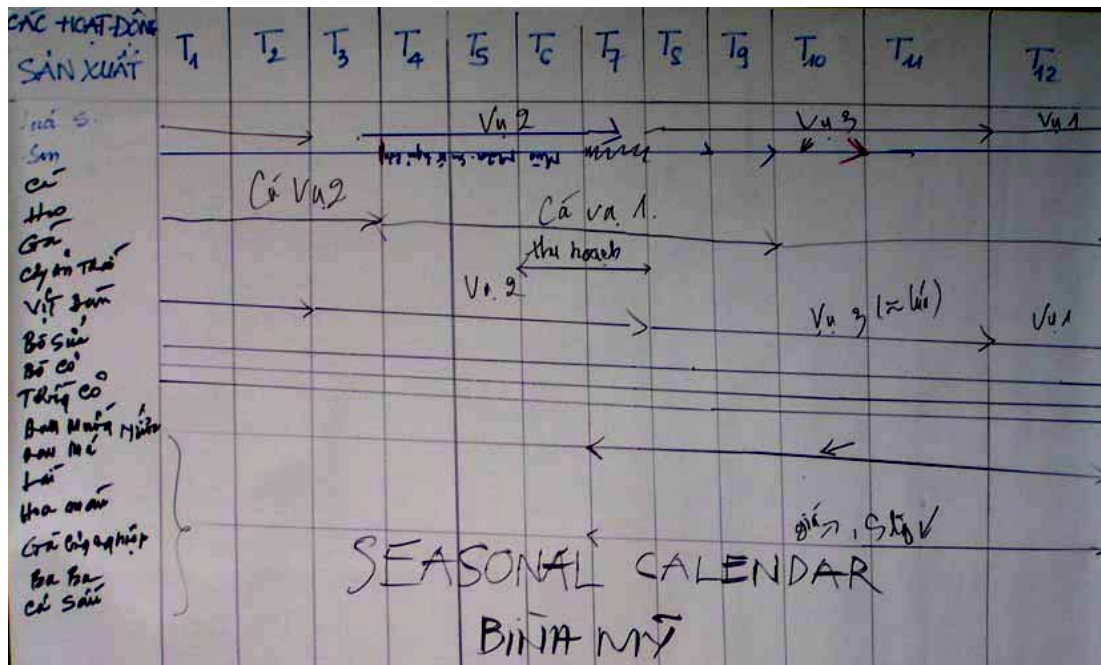


Figure 3 Seasonal calendar of agricultural production models in Binh My village

### 5. Food types and sources

- Farmers can supply or buy rice themselves
- They must buy marine fish and pork. For marine fish: tuna, scads, glue fish are the most commonly purchased
- For wild fish, people catch snakehead, tilapia, and clarias from the surrounding environment by electro-fishing. Generally most people like to consume wild fish better than the other types.
- Farmers can supply morning glory themselves. Other vegetables have been bought eg. basella alba, cabbage, etc.
- They eat a few chickens and duck in parties and for special occasions.

- Water from wells are used for their everyday living requirements for water
- Local Officials can spend 15,000 – 20,000VND/day for eating and drinking, whereas for the farmer this is around 10,000VND/day
- The majority of farmers don't eat beef because the price is too expensive.



**Figure 4** The farmer's food consumption and source of supply during the year

#### 6. An average working day for the village inhabitants

- Farmers usually get up at 4 am
- Then they do exercise, have breakfast and tidy up their house (4-6am).
- For those who culture fish and pigs, the households feed their stock between 6 - 7am.
- For those cultivating rice they work from 7- 11am
- Most farmers take a siesta between 11-1pm
- Most farmers rarely work in the afternoon and have dinner between 5-7pm – they mostly have their spare time for doing nothing otherwise men can spend time for their drinking together or attending funerals or wedding ceremonies.
- At night farmers usually relax by watching TV or going to bed at 8pm
- In general farmers usually get up and go to bed early. But local officials often go to bed later

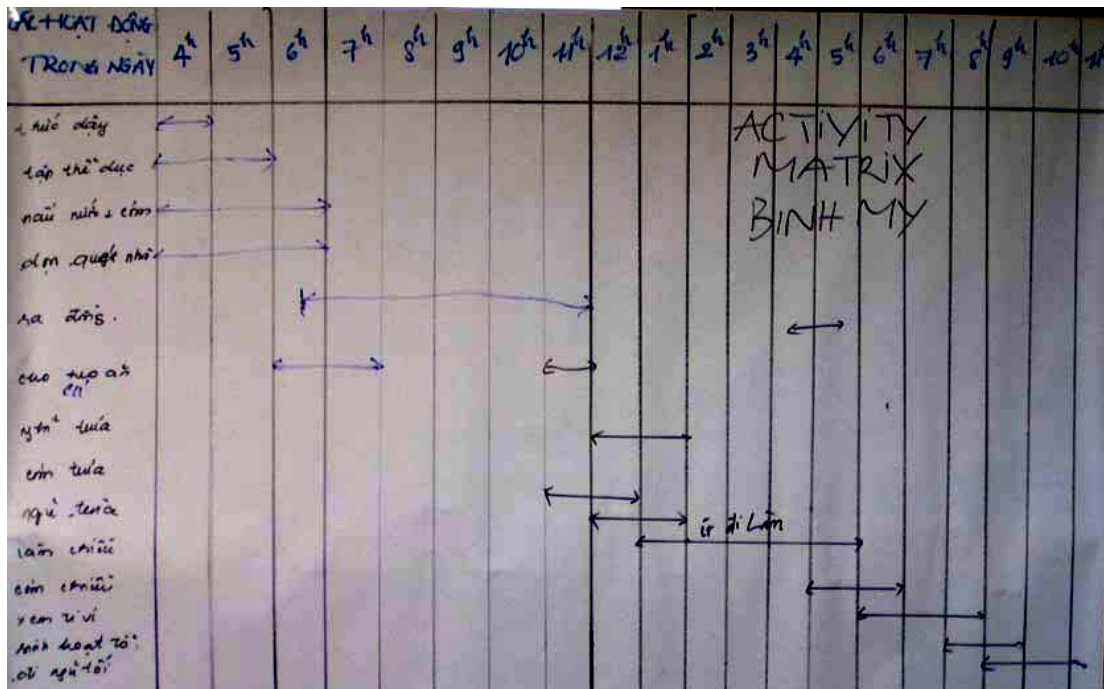


Figure 5 Activity Matrix of community inhabitants

## V. The difficult problems of the community inhabitants - Problem ranking exercise

### List of the problems of the participants:

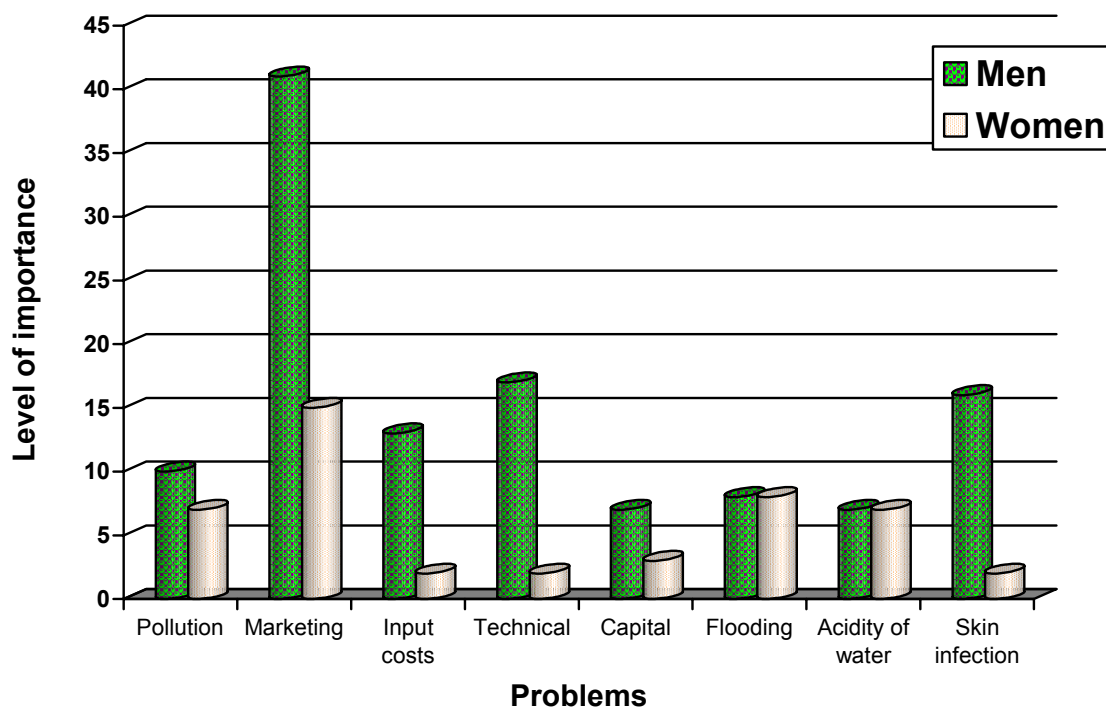
- Marketing the products is the most important difficulty for farmers; they usually are constrained by the low prices offered by the traders.
- Lack of technology available to the farmers causes them to culture fish on a small scale, and not develop their farms.
- Disease of skin and nail fungus due to constantly working within an aquatic environment
- Effect of water pollution on farmed fish.
- Flooding: farmers are affected by flooding on average once every 10 years
- Seed fish/fingerlings and fertilizer are too expensive causing farmers to limit their production. Further, lack of fish seed production in the commune also caused the low benefit of fish culture due to high input costs.

CÁC KHÓ KHĂN VÀ TRỞ NGẠI	NAM	NỮ	TỔNG CỘNG	XẾP LOẠI
PROBLEM RANKING				
Dâu Ra	41	15	56	1
Giống, phân đất, (cảm)	13	2	15	6
ô nhiễm	10	7	17	4
phèn	7	7	14	7
Thiếu kỹ thuật	17	2	19	2
Vốn	7	3	10	8
Ngập lụt	8	8	16	5
Bệnh nấm mốc	16	2	18	3

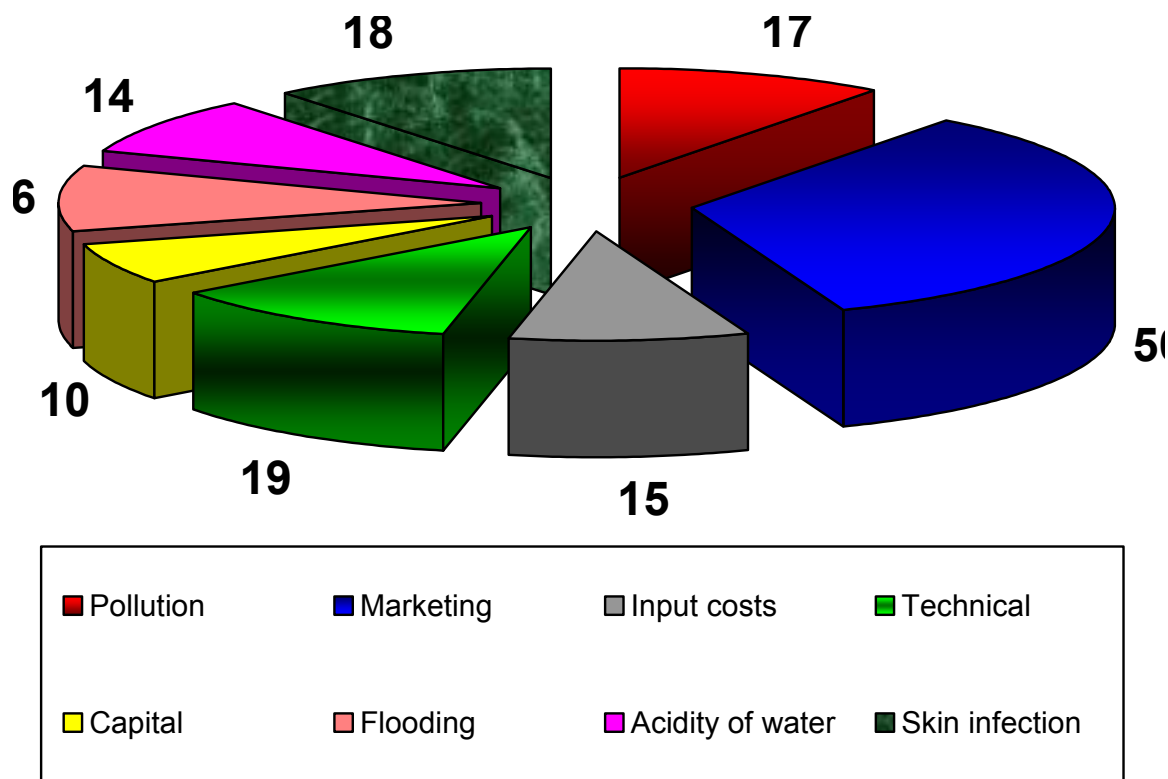
Figure 6 Ranking the important problems faced by the participants.

**Table 3** Problems and ranking by participants

Rank	Problems		
	Men	Women	Pool
1	Marketing products	Marketing products	Marketing products
2	Lack of new techniques	Flooding	Lack of new techniques
3	Skin infections	Pollution	Skin infections
4	High price of seed and fertilizer	Acid water	Pollution
5	Water pollution	Lack of capital	Flooding
6	Flooding	High price of seed and fertilizer	High price of seed and fertilizer
7	Acid water	Lack of new techniques	Acid water
8	Lack of capital	Skin infections	Lack of capital



**Figure 7** Problems of participants in Binh My according to men's and women's opinions



**Figure 8 Problems evaluated by participants as a whole group**

#### **VI. Summary and some recommendations**

- Farmers culture fish on a household scale used for family consumption
- Area of aquaculture is too little compared with agriculture area
- Aquaculture is distributed all over the village in Binh My commune
- Culture of fish, morning glory, and lotus are the main aquaculture activities.
- Water environmental pollution is not a big issue at the moment. However, it would be very much more serious if concerns will not be taken in to the planning process as farmers have found polluted water from nearby factories.
- Farmers often contract skin and nail fungus diseases – but do not regard them as being important
- Fish farmers usually use their own cultured fish for their meals
- About 90% farmers are in the medium and better off groups which were ranked by local government.



- Every 10 years or so, farmers have great problems because of high flooding
- The city's urbanization projects have been little incorporated in order to develop peri-urban agriculture activities because Binh My commune is already a reserve area for agriculture production in future for HCMC..