

A Publication of the Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme

Participatory Poverty Assessment (PPA)

Plain of Reeds, Viet Nam



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EXECUTIVE SUMMARY

To help levels of governments and local people manage wetland resources for conservation and sustainable use, IUCN conducted a PPA in Viet Nam to gather data on poverty in local communities in and around areas that have been chosen as demonstration sites in Viet Nam for the Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme (MWBP).

In December 2002 a PPA was conducted in Tram Chim and Lang Sen by a team of consultants from Hanoi, coordinated by ActionAid Viet Nam in collaboration with local authorities from Tan Hung (Long An) and Tam Nong (Dong Thap). Issues covered in the PPA included: 1) local perspectives on living conditions 2) local knowledge and use of natural resources 3) local livelihoods 4) poverty and 5) local needs and solutions for overcoming poverty.

Commonly, local people are not very satisfied with their current lives. Poor households still face problems providing their daily needs. Many households in all three classes from poor to well-off mentioned that life is not safe, there are infrastructure issues and they wonder about their children's development. However, local people are satisfied with living in communities where they have good relationships and neighbors give support whenever others meet difficulties.

Local people are aware that natural resources are important to them because they provide income. They know that changing land use and over exploitation has decreased both species and numbers. People realise they were using natural resources in unsustainable ways but believed they had no choice if they were to survive and improve their economic situation. Their concern focused on fish because they earn money from fish easier than from other sources.

Local livelihoods are based on land, natural resources and supplementary income sources. People said land is important but using natural resources (e.g. fishing) involved the highest number of households. The importance of land-based income is increasing while natural resource use is decreasing. This affects income.

The study looked at causes of poverty, characteristics of the poor, trends, and related issues like debt, vulnerability and coping with crisis.

Poverty in the area remains a serious problem; there are still people who cannot meet the minimum level of food security. By comparing data - a correlation between economic level and paddy rice area owned - the study found that owning land is a main independence variable for poor people. The poor commonly sell their labour to survive. However, in the past ten years, economic development is increasing.

Not only the well-off but also the poorest said that living conditions have been better. According to the PPA, there are four kinds of poverty in the area: 1) waiting for outside support 2) dealing with internal community problems 3) dealing with internal household problems and 4) unexpected influences. Debt was an important contributor to poverty because if people sold their land, it created a cycle of poverty. Gender is an issue but inequality is decreasing with women gaining ground in family decision-making and community prestige.

Recommendations include improved investment programs for the poor and average, regulation of labour markets, low interest credit programs and involving local people in decision-making to create employment opportunities and manage wetland resources sustainably.

SECTION 1: INTRODUCTION

The Plain of Reeds is a vast wetland that once covered 1.8 million ha in three Viet Nameese provinces and adjacent areas of Cambodia. The Government of Viet Nam expressed interest in establishing conservation areas in two of the larger remnants.

The Mekong Wetlands Biodiversity Conservation and Development Program was established by IUCN-The World Conservation Union, Mekong River Commission (MRC) and UNDP in four Lower Mekong Basin countries (Cambodia, Laos, Thailand and Viet Nam). Working at national, regional and local levels, the program will strengthen capacity for wetland conservation and sustainable use in the Lower Mekong Basin. In Viet Nam, two sites in the Plain of Reeds, Tram Chim National Park in Dong Thap province and Lang Sen Wetland Area in Long An, were selected for study.

Established in 1992, **Tram Chim National Park** (located in Tam Nong district) was in the past a “new economic zone”. With 7 588 ha of wetland in the protected area and a buffer zone of about 20 000 ha, the park and its surrounding areas have valuable wetland resources. There are more than 200 species of birds (16 of which are endangered), turtles, snakes and fish. The surrounding areas are important rice growing lands.

Almost 40 000 people live in the six communes and townships in the buffer zone, the majority of which are rice farmers, fishers or agricultural labourers. The park is strictly protected and local communities are denied access to the resources inside and people/park conflicts have increased. Twenty percent of the households in the area are categorized as poor (Ministry of Labour, Invalids and Social Affairs criteria).

Table 1. Characteristics of communes around Tram Chim National Park

Commune	Area (ha)	Population	No. of HHs	Poverty rate (%)	Main Incomes
Tram Chim	1 169	8 840	2 070	8.60	Agriculture and trading
Phu Tho	6 054	10 124	2 154	11.88	Agriculture
Phu Thanh B	4 966	3 077	633	71.41	Agriculture
Phu Hiep	4 842	7 109	1 573	40.69	Agriculture
Phu Duc	5 041	6 026	1 318	5.61	Agriculture
Tan Cong Sinh	7 746	4 346	1 001	17.48	Agriculture
Total	29 818	39 522	8 749	20.29	

Source: Tram Chim National Park, December 2002

Lang Sen Wetland Area is another remnant of the wetland landscape original Plain of Reeds. According to provincial and local authorities, Lang Sen has a core zone of about 1 400 ha. Called a natural conservation reserve, it has no organisation responsible for its management. The wetland and channels have natural melaleuca forest. Lang Sen has several large lotus ponds, which are a common character of Dong Thap Muoi. There are 61 species of birds as well as otters, turtles, weasel and pythons.

Table 2. Characteristic of two communes in Lang Sen

Commune	Area (ha)	Population	No. of HHs	Poverty Rate (%)	Main incomes
Vinh Dai	7 456	5 841	1 141	7.0	Agriculture
Vinh Loi	5 301	3 599	739	7.5	Agriculture
Total	12 757	9 440	1 880	7.25	

Source: Long An Department of Science, Technology and Environment (poverty rate estimated from a May 2001 survey)

Long An province plans to establish Lang Sen as a wetland reserve for conservation and sustainable use of wetland resources. It is located in the administrative district of Vinh Loi commune which has a population of approximately 3,600 people, most of whom are rice farmers, fishers or melaleuca farmers.

IUCN sponsored a PPA in the project sites and asked ActionAid to coordinate them. Two principal investigators conducted the PPA in collaboration with Long An and Dong Thap authorities from 2 December to 30 December 2002. They organised training courses for team members, worked as team leaders in the field and wrote the final report in Hanoi.

1.1 Soils acidity and settlement in the Plain of Reeds

The original flood plain had no canals and was covered with a thick mat of vegetation. At the onset of rainy season, water penetrated the vegetation and collected in the few small natural streams. Trapped water was later released slowly through evapo-transpiration. This system formed the wetland ecosystem which supported biodiversity and regulated the 'heartbeat' of the Mekong River hydrological regime. Today, the hydrological regime of the Plain of Reeds is greatly altered because of the dense network of canals that allow water to flow in and out quickly.

Although the settlement history of the Plain of Reeds began centuries ago, the major influx of people occurred when the land was opened for agriculture development after 1975. Immigration was facilitated by the construction of canals by the government. Because of an ancient layer of marine deposit, the area is affected by potential acidity. When the wetland is drained for agriculture, potential acidity becomes active acidity which is toxic to plants and animals. Crops were not productive and settler's lives were difficult for the first several years until the acidity was washed away.

Some early settlers who sold their original lands and lacked experience in the new farming practices were ruined after several successive crop failures. They had to sell their land to another generation of settlers or those with experience who managed to become better-off. Most of these now landless people turned to natural resources for survival or became agricultural labourers. This helped to widen the gap between the rich and the poor. This phenomenon is acutely felt in Tram Chim area while in Lang Sen (because it is more geographically remote) the population density is less and the proportion of landless is lower than that of Tram Chim.

SECTION 2: METHODOLOGY

A seven day training course (2 December to 8 December 2002) was held at Tram Chim National Park for 18 individuals from Long An and Dong Thap. Team members helped develop topic guides for interviews and group discussions. The final two days were used as practice sessions before going into the field. The team started its work on 9 December in Tram Chim. Ten days were spent in each area.

To gain insights into poverty of the local communities, the PPA aimed to understand the perceptions of local communities on:

- Characteristics, symptoms, causes and poverty trends
- The importance of wetland resources to livelihoods
- Vulnerability at household and community levels

The methods used in the study were semi-structured interviews, personal observations, key informant interviews, wealth ranking and focus group discussion.

Selection criteria for choosing communes were the same. Phu Duc has three villages and K8 was chosen for data collection. There are four villages in Vinh Loi and Ca Sach (with some from Ca Cac) were chosen for data collection.

Household selection included different community groups with regards to economic situation, age and sex of household heads, location within the communes and use of natural resources. The 'snow-ball technique' was used to determine sample size, that is, the survey is stopped when it was felt that even if more interviews conducted, no new information or insights would be gained. The information below presents the numbers of household interviews, group discussions and key informant interviews.

Interviewed groups in Tram Chim and Lang Sen	Total households interviewed: 67 in Tram Chim and 37 in Lang Sen	Group discussions and interviews (each included 5-12 people)
1 interview with the commune leaders 1 interview with a male group 1 interview with a female group 1 interview with an elderly group 2 group discussions on natural resources, polices and associated programs	44 poor households 23 average households 8 well-off households 4 households with special living situations 6 female-headed households (divorced or widowed) 14 case studies 15 other in-depth interviews	2 communal leader groups 2 male groups 2 female groups 2 elderly groups 4 groups with men and women

To guide the informant selection, a wealth-ranking exercise was conducted before proceeding with other tools. In this exercise, all households in the target areas were classed as (1) poorest, (2) average, and (3) better-off.

At the end of each day, the team leader coded data collected by team members. Data analysis, interpretation, and writing took place in Hanoi.

Efforts were made to avoid biases, however, the study results have limitations. The experience of government officials conducting the interviews was limited, and although the communes and villages in each area were similar, a generalization of findings to a specific commune or village to others might not be entirely correct. The study focused on the poor so data do not represent the total

population. This study presents qualitative data that tries to provide insights rather than quantitative statistics.

SECTION 3: LOCAL PERCEPTIONS ON POVERTY

Although socio-economic conditions in the two communes are improving, local people are still living in poor conditions. People's perception on poverty differed from government statistics which use MOLISA's poverty criteria. People feel they are poorer than indicated by government data. The tables below present wealth ranking by households versus poverty statistics by the commune governments.

Table 3. Community wealth ranking versus commune poverty rate (Vinh Loi)

	Local wealth ranking		Commune poverty rate ¹	
	No. of households ranked	%	2001 (%)	2002 (%)
Very poor	9	22.5		
Poor	9	22.5	7.15	5.25
Average	14	35.0		
Well off	8	20.0	92.75	94.75

Table 4. Local wealth ranking versus commune poverty ranking (Phu Duc)

	Tram Chim	%	Local people	%	Differences	%
Very poor	7	4.76	36	24.49	29	19.73
Poor	50	34.01	43	29.25	-7	-4.76
Average	53	36.05	62	42.18	9	6.12
Well off	37	25.17	6	4.08	-31	-21.09
TOTAL	147	100.00	147	100.00	0	0

In fact, the criteria for poverty ranking used by local people are quite different from those used by the commune governments as seen in Table 5 below.

Table 5. Local wealth ranking criteria versus commune classification criteria

	Local ranking criteria	Commune poverty criteria
Well-off	Having a lot of land ²	Income over 125 000 VND per person per month Household has lot of land Doing services or enterprises
	Doing big services or enterprises	
	Production facilities (tractors etc)	
	Helping neighbors	
Average	Never hungry	Household income per person is over 125 000 VND per month Owning lots of land
	Having quite a lot of land (> 3 ha) ³	
	Doing small services	
	Support neighbors when needed	
Poor	Having little land (< 0.5 ha)	Income per person is 100 000 to 125 000 VND per month
	Sometime lacking food (not in Vinh Loi)	
	Selling labour	
	Borrowing money	

¹ Commune People Committee, December 2002.

² Having a lot of land: a household has more than 3 ha of paddy rice in Tram Chim and in Lang Sen more than 1 ha of paddy rice and 10 ha of melaleuca.

³ Having quite a lot of land: a household has more than 3 ha of paddy rice in Tram Chim and in Lang Sen about 0.7 ha of paddy rice and 3 ha of melaleuca.

Very poor	Borrowing money to pay for daily needs (not in Vinh Loi)	Household income per person is less than 100 000 VND per month
	No land	
	No husband	
	Gambling	
	Domestic abuse and alcoholism	

The criteria used by commune governments were based on MOLISA's criteria, which classifies as poor those with an income of less than 125,000 VND per person per month. Meanwhile, local people used landlessness or land shortage, food insufficiency and labour as criteria for classifying the poor group. Land was considered important as it allowed people to control their lives because if they have enough land, a household can accumulate capital to invest in irrigation and fertilizer to increase production.

“Poor people in Vinh Loi do not lack food because we have a good fishery. Even people from Kien Giang and Dong Thap come here to earn money. In flood season, there are some difficulties but the poor here do not lack food to survive.” (Chair of the Vinh Loi commune government)

While the landless rely on selling labour, those who are land short also sell labour for additional income. These land short people are vulnerable because agricultural job opportunities are not reliable. Additionally, the poor are believed to suffer from alcoholism and domestic abuse. There are less food shortages in Lang Sen because the fishery remains abundant and less people in Lang Sen are

landless or land short.

Table 6. Local incomes

Incomes	Phu Duc		Vinh Loi		Total	
	n=47	%	n=28	%	n=75	%
Land based						
Paddy rice	15	31.92	16	57.14	31	41.33
Melaleuca plantation	0	-	16	57.14	16	21.33
Selling labour	31	65.96	15	53.57	46	61.33
Commercial agriculture	2	4.26	2	7.14	4	5.33
Natural resource based						
Fishing in channels	34	72.34	27	96.43	61	81.33
Fishing in paddy fields	4	8.51	0	-	4	5.33
Fishing in the national park or reserve	6	12.77	7	25.00	13	17.33
Handicrafts	1	2.13	0	-	1	1.33
Other						
Small trading/services	13	27.66	1	3.57	14	18.67
Livestock	10	21.28	4	14.29	14	18.67
Fish raising	3	6.38	9	32.14	12	16.00
Salary/allowance	1	2.13	6	21.43	7	9.33
Receive aid	8	17.02	1	3.57	9	12.00

Source: PPA – household interviews - December 2002.

The poor households stated that they would be satisfied if they had had enough to eat while the average wanted a more dependable income while the better-off wanted improved access to infrastructure and services. For the average and better-off, they accept what they have and they are happy because they can afford to send their children to school. A child going to school represents hope for the next generation. For the current generation, accepting poor infrastructure conditions and unreliable incomes, neighborhood and domestic relationships receive important weight to provide satisfaction.

Table 7. Local perspectives on community living conditions

No	Item	Poor		Average		Well-off		Total	
		n=41	%	n=21	%	n=8	%	n=70	%
1.	Poor living conditions	14	34.15	4	19.05	0	0	18	25.71
2.	Good producing conditions	0	0.00	0	0.00	3	37.5	3	4.29
3.	Poor producing conditions	6	14.63	4	19.05	1	12.5	11	15.71
4.	Not enough rice to eat	5	12.20	0	0.00	0	0	5	7.14
5.	Poor infrastructure	6	14.63	6	28.57	4	50	16	22.86
6.	Poor condition for children development	6	14.63	4	19.05	1	12.5	11	15.71
7.	Good neighborhood relationships	9	21.95	1	4.76	1	12.5	11	15.71
8.	Good social net support	5	12.20	2	9.52	0	0	7	10.00

Source: Household data - PPA, 12, 2002.

SECTION 4: CAPITAL AND VULNERABILITY

4.1 Physical capital

People in all groups felt that infrastructure was inadequate (e.g. lack of access to clean water and sanitation, electricity and roads). More of the better-off mentioned the weak infrastructure than the poor. This is probably because the poorer focus more on their immediate survival needs.

“We have enough and can afford to send children to school, but we have no access to electricity and good roads for transportation.” (better-off household)

“We have nothing, no land, no capital, my parents and parents-in-law are poor so they cannot give us anything.” (poor household)

Perceptions on production conditions vary among different groups. Thirty seven percent of the better-off group indicated that production conditions were good for them, of which one particular better-off household of seven members owning 1.1 ha of rice and 3 ha of melaleuca stated that their production conditions are insufficient. This household felt they lacked capital for investment and their landholding was too small for the family size. Meanwhile all

other groups said their production conditions were poor because they were either landless or land short and lacked financial capital to invest while their melaleuca trees died because of floods.

Table 8. Causes for poverty

	N=82	%
No land or having little land	43	52.44
Lack of labour	5	6.10
Have small children	4	4.88
Female-headed family	4	4.88

4.2 Social capital

“We are poor and do not have land, fishing nets or boats. Our children cannot go to school but sell their labour. Notwithstanding, we have good neighbors supporting us when we meet difficulties.”

“Living without support from relatives is difficult. Once we fall, we cannot recover.”

“We feel happy when we can help our neighbor! We are not rich but if we can help we will.”

In the two surveyed areas, neighborhood relationships seem to be good and people help each other in case of need. The poor group mentioned neighborhood support more often than the average and the better-off groups. However, many respondents complain they have no support network because their relatives are as poor as they are or, in the case of new settlers, their relatives are far away. There appeared to be no social capital for the management of common resources like the fishery. Except in the case of aquaculture where a sign usually up prohibits access, fishery resources are viewed as open access for all. It is not known if

open access would continue if there was a commercial fishery or if it works only with simple fishing methods mainly for household consumption. Natural resources are viewed as bounty from God that every one has equal access to as in a Viet Nameese saying: “Birds in the sky; fish in the water; whoever is able; has the right to catch”.

4.3 Human capital

There seems to be a correlation between the age of the household head and the household economic level. Half of those interviewed were under 40 years of age and more than half of these

are poor. Meanwhile, the group between 40 and 60 years of age, the proportions of poor and average are almost equal.

Table 9. Correlation between economic level and age of the household head

Age	Poor	Average	Well-off	Total	
< 40	27	11	3	41	50.00
40-60	14	13	5	32	39.02
> 60	6	1	2	9	10.98
Total	47	25	10	82	100.00

4.4 Financial capital

Table 10 lists the financial services operating in the area and the proportion of people accessing them.

Table 10. Moneylenders

	N=34	%
Better-off people in the community	12	35.29
Neighbors	8	23.53
Government bank	7	20.59
Relatives/ Friends	7	20.59
Poverty alleviation fund	2	5.88
Credit program of Women's Union	1	2.94
Credit program of Youth Union	1	2.94
People outside of the communes	1	2.94

Loans from the community better-off are the most accessible financial service in the community. This service is commonly referred to as “hot loaning”. The reason most people use hot loans is they are quick enough to meet their needs in crisis and require no intimidating paper work. Though convenient and meeting emergency needs, hot loan interest rates are usually exorbitant (up to 15% per month) and often lead people into indebtedness and the vicious cycle of poverty. The Women’s Union operates a program that provides small loans to women, mainly for animal husbandry and handicraft making.

“I had to borrow about 8 million from the rich with 10 percent interest for investing in paddy rice. It remains unpaid because we the lost the crop.”

Indebtedness is a common community problem. People fall into indebtedness for a variety of reasons, especially to meet daily needs during the flood season when income is low or when members of family suffer ill health. Some households borrow

to invest in domestic animals such as pigs, chickens and duck. If the animals die or the price fluctuates, they can become indebted. Table 11 presents the most common reasons for borrowing.

Table 11. Reasons for debt

Items	N=35	%
Daily needs	10	28.57
Health problems	8	22.86
Raising household foundation	5	14.29
Invest in animal husbandry	4	11.43
Build houses	3	8.57
Invest in fish aquaculture	3	8.57
Invest in rice farming	3	8.57
Crop failure	2	5.71
Purchase fishing gear	1	2.86
For attending parties	1	2.86
Alcohol	1	2.86

“They only lend rice when you have paddy, if they think you are poor they believe it will difficult to get their money back.”

“Hot interest rate is 5 percent per month but only when they know you or you can earn money to repay.”

Not everyone can access hot loans. The loan providers need a level of confidence in the ability of the borrowers to repay the loan. The interest rate depends on the perceived level of risk.

The next important source of loans for emergencies is from neighbors. These usually carry no interest or a low interest rate. Bank for Agriculture is accessed

by one fifth of respondents, mainly for rice farming. With lower interest rates, the banks are not accessible to the poor because of the intimidating paper work and preconditions like land use certificates for collateral.

4.5 Natural capital and accessibility

Natural resources, in the perception of local people are snakes, fish and birds. Natural resources mentioned less often included wild melaleuca, wild rice, lotus and other edible wild plants. Table 12 shows those most commonly mentioned.

Table 12. Natural resources mentioned by local people from household interviews

	Tram Chim n=16	Lang Sen n=9
Fish	12	6
Snakes	10	6
Birds	3	1
Tortoise	3	5
Crab	2	-

“40 years ago when I came, birds and fishes lived everywhere. A single flock of small wild duck can destroy our entire crop in short time. But in those cases, we could still survive on wild rice and fish. Now there is no place for them to live.”

“Before 1978, lots of fish could be found here. Going to the field you could bring back baskets of fish.”

“You could then collect eggs from birds easily and eat until you felt stuffed.”

People believe natural resources have declined in abundance and distribution over the past 20 years. Before they were found abundant everywhere but as rice areas expanded, natural resources can only be found in protected areas and in canals and rivers. Interestingly, some people in Tram Chim believe the reduction of wildlife in their area is because the park attracts them all.

A scoring exercise was conducted in Lang Sen area to determine perceptions on the extent of natural resource reduction in the area (Table 13).

Table 13. Reduction of species in Lang Sen (10 = highest)

Wildlife	1950	1970	1990	1995	2002
Fishes	10	8	6	4	2
Otter	10	8	6	4	1
Quoc	10				4-5
Cormorant	10	10	10	10	6
Birds	10				4-5
Egrette	10				4-5
Crane	10			9	1
Eels	10		1	1	1
Rats	10	10	10	10	8
Bees	10	10	10	10	7
Wild edible plants	10	10	10	10	4
Natural melaleuca	10	10	7	6	4-5
Turtles	10		5		1
Snakes/Pythons	10				1
Crabs	10	10	10	10	10

“Mai duong was not found here before nor the yellow snail. The snails are terrifying because they destroy rice crops.”

“Ten years ago we also used nets, but now the mesh is much smaller, a mosquito cannot fly through!”

While some native species have become rare, new species are appearing including mimosa pigra and Golden Apple Snail. Eucalyptus are planted on dykes, even along the boundary dykes of Tram Chim National Park. When asked to describe methods for catching wildlife like fish and birds, many long-term residents could describe a diversity catching methods but said that these methods are no longer in use. Nowadays, fishing methods and

gear are more ‘modern’.

In Vinh Loi, fish is still abundant and people can earn a good income from fishing. Those who can afford to invest in making a “cha” fish trap can catch one ton of fish per harvest season and earn up to 5 million VND. There are about 500 to 600 of these fish traps per commune in Lang Sen. A boy or a girl can still use a fishing rod to catch enough fish for a family meal.

In Tram Chim, birds and snakes are sold at the town market. When asked, the sellers said they sell about 10 kg of snakes and turtles and 10 birds a day during the monthly high tide. Most of this

wildlife is bought from Tram Chim National Park poachers. The sellers also said that poachers came as far away as Vung Tau (a coastal resort 100 km away).

“It is not good to exploit natural resources like we do, but we have to do so to survive.”

“We know that fishing small fish will cause the fish to decline but we have to do so.”

“I am afraid that the next generation will not have fish to eat.”

“Electroshock is illegal, only poor people do it because they lack food.”

People are generally aware that they are using natural resources in unsustainable ways but feel they have no choice if they are to survive. However, being excluded from access to resources in protected areas, they see the national park and reserve as no benefit to them. They believe conservation is a luxurious hobby of the rich that wastes land while the poor need land for cultivation.

About 100 households in Lang Sen practice cage aquaculture in the canals and each family expects a harvest of one ton of fish after 3 months. They feed

the carnivorous fish with small fries caught in the canals. They either fish themselves or buy small fish from the poor. Each kilogram of salable fish has consumed 5 kilograms of small fish as feed. This practice, while providing immediate income for the poor who sell small fish as feed and income for the better-off who invest in cage aquaculture, can undermine the poor’s own protein sources and the balance of the natural ecosystems.

4.6 Vulnerability

Flooding

The two surveyed communes and Plain of Reeds are subject to an annual season of high water. It is not known at the time before the Plain of Reeds was extensively drained for agriculture and without a dense network of canals, if the term ‘flooding’ carried a negative connotation as it does today or if the term ‘flooding’ was used at all.

“A big flood can cause damage that it takes up to three years to recover.”

“My family has borrowed three and half million VND for raising our house’s foundation”

“Life is not sustainable because of flooding. Maleleuca died because of flood water.” (from a Women’s Group Discussion in Vinh Loi).

The annual floodwater presents problems. It causes damages to houses, crops, infrastructure and even death. This makes people vulnerable, especially the poorest. One acute problem for the poorest is they lack jobs and income during the flood period. They need to borrow from neighbors for daily consumption or from high interest rate sources. On the other hand, for those relying on fishing during the flood season, a low flood season means a bad season for fishing.

Health problem that occur to family members can be a great blow to the household economy. An average household can easily fall into poverty if a family member develops health problems, while the poor can become indebted. About 23 percent of the respondents said they had to borrow money when they had health problems.

“My mother had a lung illness and we sold our land to pay for her treatment. After that we started to fall [into poverty] and had to sell our labour to survive.”

“I had to borrow two million VND with very high interest rate, 20 percent, while my wife was sick and still cannot repay yet.”

Market price and job uncertainty

“A low price for rice in the market causes more problems for the rich than to the poor. A low rice price forces the price of labour down and the poor do not have enough of money to buy food.”

“He wanted to kill himself when he lost about 10 tons of fish.” (The vice-chairman of Phu Duc talked about one farmer losing from fish raising.

“It is not stable job, work for them one day, off 3 or 4 days, very difficult.”

Wage labourers are usually paid in rice equivalents. A fluctuation in rice prices means a fluctuation in wages. People believe that having no land, selling labour and fishing are unstable. In the past, it was easy to catch fish in the channels or the fields to survive, but now, there are less fish. In addition to selling labour, they also have to go to their neighbors to ask for daily, weekly or monthly support. Some groups believed the stability of selling labour would be less in the next 5 years.

Table 14. Reasons for uncertainty

	N=82	%
No producing or exploiting equipment	9	10.98
Unstable job	11	13.41
Low productivity of paddy rice	5	6.1
Bad crops	6	7.32
Decrease of rice price or not stable price	4	4.88
Low education	2	2.44

Social marginalisation and gender issues

“The rich do not trust us. They are afraid that we cannot pay back if they lend us money.”

“We do not participate in the Women’s Union because we are too poor and have no time to participate.”

“In the past, husband was the lord, wife as the servant, now it is not.”

Some families mentioned they are marginalised from community life because they are poor. In terms of power, the positions of women within the household as well as in the communities have greatly improved. However, because of their lack of skills and job options, those who work as agricultural labourers earn a lower wage than men do. A man earns 25 000 VND for a labour day while a woman earns half that. It is believed that women’s productivity is lower than that of men per unit of time.

Table 15. Changes of positions between men and women

	Now		Past (20-30 years ago)	
	Men	Women	Men	Women
Decision-making in the family	10	9	10	5
Prestige in the community	10	9	10	5

Poverty trends at the community level

<p>“Life is better now because soil quality has been improved. Yields have doubled.”</p>	<p>Most of those interviewed said that in general, living conditions in the community as a whole have gradually improved. However, development benefits are not equally distributed to the household level. The respondents also said the gap between the rich and the poor is widening.</p>
<p>“Life is easier now since the roads have been built, and domestic animals have some higher ground to escape floods.”</p>	<p>People believed flood patterns have changed significantly and impacts of flooding have increased.</p>
<p>“Canals have been dug everywhere causing water to flow faster.”</p>	<p>Because of acidity problems in the beginning, those who lacked experience or resources to sustain their livelihoods had to sell their land after several successive crop failures.</p>
<p>“In the past, when we came here, everyone had land. None of us had to sell our labour. Now some sold their land, they have to sell their labour so they are poor.”</p>	

SECTION 5: LIVELIHOODS STRATEGIES

Local livelihoods are based on three main income sources: 1) land-based, 2) natural resource, and 3) other. Even though people said that land was very important, the PPA found the majority of respondents saying that fishing in canals is one of their main incomes (almost 80%). Meanwhile, 61% said they sold labour and 50% said their incomes were based on rice farming.

In Vinh Loi, commercial melaleuca farming is an important livelihood activity but no one mentioned this during the Tram Chim area interviews. Small trading is fairly well developed in Tram Chim. In Phu Duc, only one of the interviewed households was involved in this job, probably because the road system is not yet developed. Retailing boats sell everyday needs, but the survey team did not have an opportunity to interview the boat owners. In Tram Chim, some women are involved in mat weaving using water hyacinths as raw materials. This project was initiated by the Women's Union of Tam Nong district and the products are sold to traders for further processing in foreign markets, especially Japan. Table 16 presents the different income sources and the percentages of people involved.

Table 16. Local income sources

Incomes	Phu Duc		Vinh Loi	
	n=47	%	n=28	%
Land based				
Paddy rice	15	31.92	16	57.14
Melaleuca plantation	0	-	16	57.14
Selling labour	31	65.96	15	53.57
Agricultural services	2	4.26	2	7.14
Natural resource based				
Fishing in channels	34	72.34	27	96.43
Fishing in paddy fields	4	8.51	0	-
Fishing in protected areas	6	12.77	7	25.00
Handicraft making	1	2.13	0	-
Others				
Small trading/services	13	27.66	1	3.57
Husbandry	10	21.28	4	14.29
Aquaculture	3	6.38	9	32.14
Salary/pension	1	2.13	6	21.43
Aid	8	17.02	1	3.57

Land-based income activities, which involved 98% of the interviewed households, included rice farming, commercial melaleuca planting, agricultural labour and agricultural services. Only 2% of surveyed households earned their income from small trading and services that were not land-based.

As the data in Table 17 indicates, rice farming is not important for the poor in Phu Duc. This means that most of the poor in Phu Duc are landless and rely more on selling labour. Rice farming receives a higher score from the poor in Vinh Loi because more poor people there own land and are waiting for the harvest from melaleuca. The better-off in the both areas gave the maximum score for rice farming and interestingly the better-off in Vinh Loi gave a high score for melaleuca farming. This raises the question whether melaleuca planting, which is far more environment friendly, could be an economically competitive activity versus rice farming.

Table 17. The importance of land based incomes

Land-based incomes	Phu Duc			Vinh Loi		
	Poor (n=18)	Average (n=6)	Well-off (n=5)	Poor (n=3)	Average (n=3)	Well-off (n=3)
Paddy rice	0.50	7.83	10.00	6.67	7.00	10.00
Melaleuca plantation	0.00	0.00	0.00	0.00	0.00	9.30
Selling labour	8.83	0.67	0.00	3.33	7.00	0.00
Commercial agriculture	0.00	1.67	3.60	0.00	2.00	0.00

“Ten years ago, paddy rice cultivation can get a score of 7 to 8 for its importance to my household, now it is 10.”

“We moved here in 1992, bought 6 000 m², the land was bad. We had to struggle to survive for the first several years. Luckily there was still fish for us to survive.”

in the near future.

“If we can borrow money from the bank, or from our relatives we will by 5 000 m² of land to cultivate. We do not have any now.”

“If we can borrow a little money, we will hire 5 000 m² to cultivate, mine was mortgaged.”

“1992 we had 6 000 m², now we have 2 ha. If we can save our money, we will buy more land in the future.”

“I used to have 2 ha of land, but I shared my land to my children and now I have only 5 000 m².”

“Last year we saved 500 000 VND from selling fish, this year just enough to eat.”

The ranking of different land-based income have changed over time. Generally, rice has increasingly become more important as acidity washed away and natural resources depleted. Consequently agricultural labour has also been increasingly important, but some respondents believed this job opportunity will diminish as more pesticides and machinery is applied that would require less labour. If it was 10 in the past, it is 7-8 now and will be 2-3

People of all strata want to own more land for rice farming, particularly the landless who are willing own or rent. However, those respondents owning from 5 to 9 ha of land did not want to own more. It seems that buying land is the first investment priority for local people.

Fishing for household consumption or commercially is the most common job of local people (82%). They fish in canals, rice fields or the protected areas. Fish in the canals and rice fields are becoming scarce while fishing in protected areas is illegal. However, fishing is becoming less important than rice farming. In Vinh Loi, fishing receives a higher score than in Phu Duc, simply because fish are more abundant in the area. People believed the importance of fishing as an income source would decline even more in the future because there would be less fish to catch.

Besides land-based and natural resource-based incomes, people also derived their incomes from other sources such as small trading and services. These are better developed in Phu Duc because the infrastructure is better.

5.1 Crisis coping mechanisms

“In 1999 – 2000, the price of paddy rice dropped, we lost that crop. Because of that we cannot pay back the money we borrowed. We must sell our 8 000 m² of land. My first daughter has gone to HCMC to work. The second has just married. The third started working in HCMC, selling labour like her sister. I stay home with three children, driving a bike-taxi and selling labour to earn money for them. Our life is based on farming, no land it’s not enough to survive.”

“We raise chicken and ducks because they are the easiest things to sell when we are in need.”

The coping mechanisms used by the local poor are simple. First, they sell domestic animals even if the animals have not reached commercial size. Next is borrowing small amounts from neighbors or loan sharks. The younger family members migrate to the cities to find low paying jobs. The last resort is to sell land and become permanent wage labourers.

5.2 Development programs

“Living here is difficult because we have no power, no clean water and few people hire us to work but we are satisfied because we have a strong house, nothing can cast us out. Freedom!”

In general, people appreciate government investment programs, especially those that invest in roads or house building. Thanks to road and dyke construction, people and animals have high ground to escape floodwaters.

5.3 Aspirations and future plans

Table 18. Local solutions

	n=32	Tram Chim		Lang Sen	
		12	%	21	%
Don't know			-	4	19.5
Nothing as no money/old		1	8.33	1	4.76
Selling labour		1	8.33	4	19.05
Business as usual		3	25.00	1	4.76
Raising fish		1	8.33	3	14.29
Take up small trading			-	1	4.76
Saving money			-	2	9.52
Buying land: 0.2-0.3 ha		1	8.33		-
Loan money		2	16.67		-
Expanding production		1	8.33	2	9.52
Melaleuca cultivation			-	2	9.52
Interesting in working, working hard and learn how to work			-	4	19.05
Participate into Women's Union(*)		4	33.33		-

Average households have plans to expand their work while the poor commonly focus on 1) participating in the Women's Union – for borrowing money 2) saving money for emergencies 3) raising fish and 4) trying to buy land. Few people know how to borrow money from the credit program (6.25 percent) in comparison with the proportion wanting to borrow (84.75%)

There are some differences between Tram Chim and Lang Sen. The people in Lang Sen focus on their current work to make more money, while in Tram Chim, they choose other jobs like buying

land, borrowing money and participating in the Women's Union. It is clear that livelihoods based on natural resources in Lang Sen are richer than in Tram Chim.

SECTION 6: CONCLUSIONS

Commonly, local people are not very satisfied with their current lives. Poor households still face problems providing their daily needs. Many households in all three classes from poor to well-off mentioned that life is not safe, there are infrastructure issues and they wonder about their children's development. However, local people are satisfied with living in communities where they have good relationships and neighbors give support whenever others meet difficulties.

Local people are aware that natural resources are important to them because they provide income. They know that changing land use and over exploitation has decreased both species and numbers. People realise they were using natural resources in unsustainable ways but believed they had no choice if they were to survive and improve their economic situation. Their concern focused on fish because they earn money from fish easier than from other sources.

Local livelihoods are based on land, natural resources and supplementary income sources. People said land is important but using natural resources (e.g. fishing) involved the highest number of households. The importance of land-based income is increasing while natural resource use is decreasing. This affects income.

- People believe they are poorer than the government considers they are and the criteria for poverty used by local people are different from the MOLISA's criteria used by commune governments.
- Community living conditions as a whole have improved thanks to infrastructure construction by the government (e.g. roads and dykes).
- The gap between rich and poor is widening.
- Social safety nets are not as robust as before.
- Natural resources have been depleted because of unsustainable agricultural practices. There is no social capital for managing common resources.
- Protected areas are believed to bring no benefits to local communities as they are strictly protected. There are feelings of resentment from local communities towards protected areas.
- Poor people lack all the essential capitals for livelihoods. They are forced to use natural resources in unsustainable ways. Their last resort is hiring out as agricultural labourers.
- Local people are living in a highly vulnerable context where they are subject to annual flooding, health shocks, market and job uncertainties. During the wet season, it is hard to find a job.
- Public development policies, which usually materialize in the form of structural measures, have not specifically targeted the poorest of the poor.
- Formal financial services are not yet client-friendly and are not accompanied by skill or business planning training. A crop failure or death of domestic animals makes them unable to pay back loans.
- The informal sources, while providing quick loans, command high interest rates which most of the time lead the poor into the downward spiral of indebtedness and poverty.

SECTION 7: RECOMMENDATIONS

7.1 Public policies

- Investment programs should consider equally the impacts or benefits to the well-off and the poor, including the environment impact.
- There is a need for regulation in the labour market to equalize earnings between men and women.

7.2 Community development programs

- Establish low interest credit programs for the poor and average (saving programs are a corollary).
- Raise awareness for the current and the next generation about the importance of wetland resources.

7.3 Approaches

- Involve local people in the decision-making process and encourage local initiatives.
- Improve social capital to manage common resources.
- Harvest natural resources sustainably while creating employment opportunities:
 - help the poor directly
 - help the better-off create jobs for the poor.
- Cooperatives need better access to services, markets and economies of scale.



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Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme

The Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme (MWBP) is a joint programme of the four riparian governments of the Lower Mekong Basin – Cambodia, Lao PDR, Thailand and Viet Nam – managed by the United Nations Development Programme (UNDP), IUCN – The World Conservation Union (IUCN) and the Mekong River Commission (MRC), in collaboration with other key stakeholders. With funding from the Global Environment Facility (GEF), UNDP, the Royal Netherlands Government, MRCS, the Water and Nature Initiative (WANI) and other donors, the programme addresses the most critical issues for the conservation and sustainable use of natural resources in the Mekong wetlands. MWBP aims to strengthen the capacity of organisations and people to develop sustainable livelihoods and manage wetland biodiversity resources wisely. It is a five-year (2004-2009) intervention at three levels – regional, national and local – with demonstration wetland areas in each of the four countries: in the Songkhram river basin, Thailand; in Attapeu province in southern Lao PDR; in Stung Treng, Cambodia; and in the Plain of Reeds in the Mekong Delta, Viet Nam. The programme aims to:

- Improve coordination for wetland planning from regional to local levels
- Strengthen policy and economic environments for wetland conservation
- Generate and share information
- Train and build capacity for the wise use of wetlands
- Create alternative options for sustainable natural resource use and improve livelihoods

MWBP is a partnership between governments, aid agencies and NGOs, and provides a framework for complementary work for wetland conservation and sustainable livelihoods in the Lower Mekong Basin.

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