PERSONAL AND HOUSEHOLD PROFILE, PERCEPTIONS AND ASPIRATIONS OF THE DEPENDENT POPULATION NEAR THE MARINE PROTECTED AREAS IN THE VISAYAS, PHILIPPINES

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ABSTRACT

This study was conducted to determine the personal and household profile, perceptions and aspirations of the dependent population near the Marine Protected Areas in the Visayas. Specifically, the study aimed to determine (1) the personal profile of the dependent population in terms of background, primary and secondary work, and monthly income of the respondents; (2) their household size, number of children in school, number of working household members, total monthly income, and total monthly expenses; and (3) their perceptions on their household situation, changes in the community, their aspired prominence, general aspiration in life, and education of children. The study is purely descriptive and utilized the one-shot survey design. The respondents were the local officials, officers and members of fishermen associations in the barangays where the Marine Protected Areas (MPA) are located. Stratified sampling was followed in proportionately allocating the number of respondents from all the fisherfolk associations. Data collection was done through Structured Interview. The respondents were generally middle aged, male, married and elementary educated. Most of them considered fishing as their primary income source and had an average income of P2, 773.39 per month. Comparing their present household situation and their perceived situation five years after, more than half of the respondents claimed of a relatively better situation. The majority of the respondents also perceived the present condition of their communities to be relatively better than the situation five years ago. Even with relatively positive perception of their present condition, they still aspired to be economically stable and wanted their children to finish college. Three-fourths of the respondents did not want their children to become fishermen.

INTRODUCTION

A Marine Protected Area (MPA) is any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment (Resolution 17.38 and 19.46 of the IUCN general assembly, as cited by Christie & McCay (2003). MPAs have emerged as popular tools for marine conservation and fisheries management. Although many types of MPAs exist (e.g., Reserves, sanctuaries, and parks), each involves a group of people collectively engaged in deciding biological and social goals (Christie & McCay 2003).

Many organizations and government agencies have been active in establishing protected areas, such as marine reserves, marine sanctuaries and marine parks, throughout the country. Marine reserves, or no-take marine areas, are areas of marine environment protected from various forms of human exploitation, especially fishing. It is understood as synonymous with marine protected areas, marine harvest refugia, and marine sanctuaries. The areas outside the reserves are referred to as non-reserves or fished areas, where fishers are allowed to fish using traditional and non-destructive fishing gears (Alcala and Russ 1990, Alcala2001, Indab & Suarez-Aspilla2004). Protected areas are fast gaining popularity as management tools for protecting and managing fisheries. They are also being used as a conservation tool for preserving biodiversity (Alcala 2001). Developing a marine protected area is a complex process involving not only the meeting of technical requirements but also soliciting community recognition and support of its objectives at all levels through education and social empowerment (Russ & Alcala 1999). The success of this approach depends on the support and participation of the stakeholders and concerned government agencies (Oracion 2003).

The Philippines has more than two decades of experience with community-based coastal resource management initiatives in which marine sanctuaries have played an important role (Crawford et al. 2000, as cited by Indab & Suarez-Aspilla 2004). Most marine protected areas in the country are coral reefs, although a few are mangroves and fewer still are sea grass beds. One aspect that these protected areas have in common is their high productivity manifested in high production of fisheries and other economically important species (Alcala 2001).

Marine reserves are considered key elements of Community-based Coastal Resource Management (CBCRM) in the country. Almost all CBCRM projects include a provision for the establishment of marine reserves as a strategy to allow recovery of the mangroves, coral reefs and their resources (Alcala, 1998). Generally, CBCRM projects in the Philippines include: (1) social preparation and community organizing; (2) environment education and capacity building; (3) resource management planning including protective management; (4) support activities for livelihood and financial resource mobilization; (5) research and monitoring; and (6) networking activities. The effort and time allocation to these activities differ from project to project but in general, social preparation, community organizing and environmental education are given priority and importance in the early stages of project implementation.

From the late 1970s to the late 1990s, there were few fisheries or coastal resource-related programs and projects that either incorporate various degrees of community participation or are fully community-based in character (Alcala 1998). Some of these projects are small and limited to specific localities. There are also large projects where the coverage is regional or national in scope . Presently, many of the 350 MPAs in the list of MPAs (SUAKCREM, unpublished manuscript) are probably community-based or are co-managed by local government units (LGUs). But many MPAs in this list are probably not well managed. Indab and Suarez-Aspilla (2004) in their study on the status, direction, and management issues of marine protected areas of the Bohol (Mindanao) Sea, noted that not much has been written about marine sanctuaries in the Philippines.

A study on the perceptions of stakeholders of the status of their MPA was conducted by Oracion (2002). Results revealed that the stakeholders considered the Marine Sanctuary in better conditions nowadays than it was five years ago. Majority (85 %) of those stakeholders who gave favorable rating to the present condition of marine sanctuaries said that these are not polluted, which resulted to an improved condition of fish and corals. Similarly, the findings of Pomeroy, Oracion, Caballes and Pollnac (2003) claimed a positive confirmation about the perceptions of the fishing households of the general condition on the fishery and marine resources in the community due to the effective management of marine sanctuaries. Results of observations and experiments relating to coral

reef fisheries in central Philippines were presented by Alcala (1998). Coral reef fisheries were found in abundance and greater varieties after quite a number of years of protection (10-15 years), depending on species. It also revealed the increase of quantity of fish caught from the non-reserve area during the period that the reserve was protected. However, fish abundance in the reserve was also reduced after protection was lifted. When protection of the reserve was restored, fish abundance and density again increased..

When it comes to changes in the fishing community, reports of Alcala, Russ, and Nillos (2006) indicated that the MPAs have caused the improvement of fisheries, marine biodiversity and livelihood of stakeholders in the 16 countries worldwide. These were managed primarily by central governments and their agencies, many of which received financial support from international NGOs and international funding agencies and had minimal involvement (if any) by the local government and local community. In the same study of MPAs found in the Philippines, the same authors confirmed that fisheries, biodiversity and livelihoods were all improved.

Like all other people, however, fisherfolks naturally have their own aspirations in life, as well as for their children. In two MPA areas, particularly in mainland Dauin municipality and Apo island, Negros Oriental, Oracion, Caballes and Lobaton (2005) have some revelations in their study. In mainland Dauin, almost one-third (33%) of the children preferred to work outside Dauin or Dumaguete. In fact, 3 out of 21 of them interviewed dreamed of becoming nurses and working outside the country in order to receive higher salary. A little below one-third of those aspired of becoming a seafarer overseas, draftsman, policeman, electrician, artist or government worker. But there were some male respondents who were just contented to go into fishing, farming, carpentry or becoming a *Bantay Dagat* member, in contrast to their children's aspiration to work outside Dauin, 95 percent of the parents did not have any plans to migrate at this time or in the future. Half of them were already contented with the kind of livelihood they are presently engaged in. The rest of the respondents resorted to the idea that they are already old and have farms and houses here and therefore have no better place to go. Moreover, they consider their community peaceful.

On Apo Island, the work aspirations of sampled children varied. Some aspired for professions employable outside of the island while others reportedly preferred to work on the island. Almost one-third of the children aspired to become teachers while the rest of the

females wanted to become either computer experts, doctors, stewardesses, midwives, journalists or office workers. Out of every seven males three wanted to become engineers, two wanted to become policemen, and one wanted to be a dive guide, and one was just contented to become a fisherman like his father. The number of children who aspired to work in other countries was a little less than half of the interviewees. More females preferred to stay on the island, which is two-fifths of the total children who were participants of the study. Motivation of higher pay or more job opportunities were the most frequent reasons behind their aspiration to work outside their island or go abroad. None of the households planned to move out of the island since they have been enticed by its fishing potential.

Study areas

Seven MPAs are covered by the study. Three are located on Siquijor Island, the Tulapos MPA in Tulapos, Enrique Villanueva; Tubod MPA in Tubod, San Juan; and Nonoc MPA in Nonoc, Larena. Two are in Southern Leyte, the Biasong MPA in Biasong, Libagon, and the Tomas Oppus MPA in San Antonio. The others are the Panas MPA in Panas, Candijay, Bohol; and the Sagay Marine Reserve in Sagay City, Negros Occidental.

All the MPAs were created by virtue of a Municipal Ordinance. Although the Sagay Marine Reserve was also created through a Municipal Ordinance, the efforts to further strengthen the establishment and management of Sagay Marine Reserve led to the passing of Republic Act 9106, "An Act for the Establishment and Management of Sagay Marine Reserve, Defining its Scope, Coverage and for other Purposes." This was passed by the House of Representatives and the Senate on February 8, 2001 and was presented by Congress on March 15, 2001 to the President for approval.

Records show that all the MPAs covered by this study were created in the early 2000 for the purpose of preserving and maintaining productive, biologically diverse and ecologically balanced ecosystems. It is then very important to determine whether after at least three years, the aims for establishing the MPA were indeed achieved and whether or not it has also benefited the fisherfolk and the community in general.

To achieve this goal, there is therefore, a need to establish baseline information for each of the MPAs. The baseline data will be the basis for improving management practices and for the long term implementation of coastal resource management initiatives.

Objectives of the study

The general objective of this study was to determine the personal and household profile, perceptions and aspirations of the dependent population near the Marine Protected Areas in the Visayas. Specifically, the study aimed to determine:

1. the personal profile of the dependent population in terms of background, primary and secondary work, and monthly income of the respondents;
2. their household size, number of children in school, number of working household members, total monthly income, and total monthly expenses; and,
3. their perceptions on their household situation, changes in the community, their aspired prominence, general aspiration in life, and education of children.

Significance of the study

Results of this study would be very helpful in determining the status of the MPAs, the community and its people after at least, three years of MPA declaration. Specifically, results of the study would be significant to the following:

Fisherfolks. The study could provide information whether or not their living condition improved as a result of MPA declaration. Results of the study could also help identify policies that are detrimental or favorable to the economic activities of the people near the MPA.

MPA Managers/Leaders and Policy-makers. MPA managers, leaders and policy-makers would be made aware of the policies, rules and regulations that need to be strengthened and/or changed. Decisions that will be made in the future will truly reflect the needs of the people, the community and all the stakeholders of the MPA.

Community. Knowing the status and needs of the people, and identifying the policies, rules and regulations that need to be strengthened will eventually lead to a productive community. Improving the living condition of the people and strengthening the management of MPAs could help improve not only the economic condition of those who are directly dependent on their coastal and marine resources but also of the whole community.

Overall, the results of the baseline study would be beneficial to the marine environment. The improvement in policies and the way the MPAs are managed will ensure a highly productive, biologically diverse, and ecologically balanced marine ecosystem. The data generated by this study could also serve as basis for future studies to be conducted by other researchers.

RESEARCH METHODS

Research Design

The study is descriptive and utilized the one-shot survey design. Its aim was to determine the personal and household profile of the dependent population; know their perceptions on their household situation and changes in the community including their aspired prominence, general aspiration in life and education of children; describe the fishing practices of the dependent population, their problems encountered and perceptions of change in the fishing industry; and to know their awareness, perception and reaction about the MPA declaration of their area.

Study Population and Sample

The study population was composed of local officials, officers and members of fishermen association in the barangays where the Marine Protected Area (MPA) is located. Sample size was computed based on the list of officers and members of the fishermen organizations of all the target areas. Stratified sampling was followed in proportionately allocating the number of respondents from all the fisherfolk associations. Systematic sampling with random start was followed in identifying the survey respondents.

Data Collection and the Survey Instrument

Data collection was done through Structured Interview. An Interview Schedule was used in asking and recording the answers of respondent. Prior to the conduct of the actual data collection, the interviewers were oriented on the content of the instrument and trained on how to conduct a one-on-one interview. The research instrument was validated by an expert juror and was pre-tested in one MPA in the Municipality of Dauin, Negros Oriental. The instrument was reused, modified and finalized after the pre-testing.

After the primary data collection was done through structured interview, secondary data were also obtained from Barangay and Municipal Resolutions and/or Ordinances.

Data Processing and Analysis

Data processing and generation of tables was done at the University Research Center of Central Philippine University using Statistical Package for Social Sciences (SPSS) Version 12. Since this is a descriptive study, frequency distribution tables and means were the main statistical measures used.

RESULTS AND DISCUSSION

Personal and Household Profile of Respondents

The personal background of the respondents in the study is presented in Table 1. The mean age of the respondents was 44.72 years and most of them (30.2%) were in the age range of 41 to 50 years. Only 14.6% were in the lowest age category of 30 years and below while 10.4% were in the highest age category of more than 60 years. More than 9 of the 10 respondents (93.8%) were male and only 6.3% were female. About the same proportion of the respondents as that of the males were married (90.1%) while the rest (9.9%) were single. The majority of the respondents (58.9%) have elementary level of education. Only 1.6% of them have no formal education and 14.1% have college level education. On the whole respondents in the study were middle aged, male, married and elementary educated.

Table 1. Personal Background of the Respondents (N = 192)

Categories	Frequency	Percent
Age		
30 years old and below	28	14.6
31 – 40	49	25.5
41 – 50	58	30.2
51 – 60	37	19.3
61 years old and above	20	10.4
Total	**192**	**100.0**
Mean Age = 44.94 years old		SD = 13.18
Sex		
Male	180	93.8
Female	12	6.3
Total	**192**	**100.0**
Marital Status		
Single	19	9.9
Married	173	90.1
Total	**192**	**100.0**
Educational Attainment		
No formal education	3	1.6
Elementary	113	58.9
High School	49	25.5
College	27	14.1
Total	**192**	**100.0**

Since the respondents of this study are basically fishermen, the result of the survey showed that out of 192 respondents, 121 or 63.0% consider fishing as their primary work (Table 2). Other respondents were primarily farmers (10.4%), laborers (8.8%) and employees (6.3%). From their primary work, the respondents get an average of P2,773.39 per month. More than half of the respondents were receiving P1,001 to P3,000, 20.7% were receiving P1,000 and below and 8.9% were receiving more than P5,000 per month. Aside from their primary work, 125 or 65.1% of the respondents have secondary sources of income. Of those having secondary work, the data in Table 2 show that almost half of them (62 or 49.6%) consider fishing as their secondary work. The rest included work as farmer/caretaker (28.8%), laborer (9.6%) and LGU officials (6.4%).

From their secondary work, the majority (54.4%) were getting an additional income of P1,000.00 and below while 28.0% get an additional income of P1,001.00 to P2,000.00 per month or an average of P1,583.80 per month. As a whole, the respondents were receiving an average of P4,357.19 per month, 63.65% from primary and 36.35% from secondary income sources.

Data in Tables 2 and 3 also reveal that of the 192 respondents, 121 (63.0%) consider fishing as their primary income source, 62 (49.6%) consider fishing as their secondary income source. Looking at the Tables 2 and 3, there are 10 respondents who are into fish buying and selling. These indicate the direct involvement of the respondents in fishing in their respective areas.

Table 2. Distribution of Respondents According to their Primary Work and Monthly Income (N = 192)

Categories	Frequency	Percent
Primary Work		
Fishing	121	63.0
Farming	20	10.4
Laborer	17	8.8
Employee	12	6.3
Fish buying and Selling	8	4.2
LGU Official	6	3.1
Driver	5	2.6
Small Business/Sari-Sari Store	3	1.6
Total	**192**	**100.0**
Monthly Income		
P1000 and below	40	20.7
P1001 – P2000	54	28.1
P2001 – P3000	46	24.0
P3001 – P4000	22	11.5
P4001 – P5000	13	6.8
P5001 and above	17	8.9
Total	**192**	**100.0**
Mean Income = P2773.39		SD = P1718.39

Table 3. Distribution of Respondents According to their Secondary
Work and Monthly Income (N = 125)

Categories	Frequency	Percent
Secondary Work		
Fisherman	62	49.6
Farmer/Caretaker	36	28.8
Laborer	12	9.6
LGU Official	8	6.4
Small Business/Sari-Sari Store	3	2.4
Fish buying and Selling	2	1.6
Driver	1	0.8
Escort	1	0.8
Total	**125**	**100.0**
Monthly Income		
P1000 and below	68	54.4
P1001 – P2000	35	28.0
P2001 – P3000	11	8.8
P3001 – P4000	1	0.8
P4001 – P5000	2	1.6
P5001 and above	4	3.2
No Data	4	3.2
Total	**125**	**100.0**
Mean Income = P1583.80		SD = P2154.74

The data in Table 4 show that most of the respondents'
households have 3 to 4 members (40.6%). This was followed by those
with 5 to 6 members (27.1%). Only 12% have less than 3 members and
5.7% have more than 8 members. Their average household size was
4.74 members. Of this household size distribution, the respondents'
household has an average of 2.43 male members and 2.31 female
members or a sex ratio of 1.05. About 6 out of 10 households (59.4%)
have 2 and below male members and about the same proportion of
households (62.0%) have the same number of female members. This
indicates that there are more or less the same number of males and
females in the respondents' households.

The data further show that the average age of household
members clustered around 11 to 40 years with 79.7% of the
respondents' households belonging to these categories. Only 0.5%

As shown in Table 5, 120 or 62.5% of the 192 respondents have 1-2 children who were of school age while 72 or 37.5 % of the respondents have more than 2 children of school age. Results, however, show that 135 or 70.3.3% of the respondents have 2 or less children who were in school but only 57 or 29.7% of the respondents have more than 2 children in school. The above discrepancy in the distribution indicates that not all of the children of the respondents who were of school age were in school, particularly those with more than 2 children of school age. The increase of 15 in the number of households with 2 or less children in school when compared with the number of households with 2 or less children of school-aged was due to the 30 households with more than two children of school-aged who were only able to send 1-2 of their school age children to school. The households have an average of 2.09 children of school age but they have only an average of 1.67 children in school.

Table 5. Distribution of Respondents According to Number of School-Aged Children and the Number Who are Presently in School (N = 192)

Categories	Frequency	Percent
No. of School Age Children		
2 or less	120	62.5
3 – 4	51	26.6
5 – 6	14	7.3
7 – 8	7	3.6
Total	**192**	**100.0**
Mean = 2.09		SD = 1.97
No. of School Age Children in School		
2 or less	135	70.3
3 – 4	45	23.4
5 – 6	10	5.2
7 – 8	2	1.0
Total	**192**	**100.0**
Mean = 1.67		SD = 1.67

The data in Table 6 reveal that 86.5% of the households have 1 to 2 working members. Although 11.5% of the households have 3 or more working members, 2.1% of the respondents claimed that they do not have any member in the household who is working. The

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respondents' households have an average of 1.62 working members. Given the average household size of 4.74, a burden or dependency ratio of 2.93 was computed which means that each working member is supporting almost 3 household members.

The data in Table 6 further reveal that the respondents' households were earning an average of P5,285.90 per month. Considering the average income of the respondents from their primary and secondary income sources of P4,357.19, the figures imply that other members of the household were able to contribute an average of P928.70 or 17.6% of the total household income. This also implies that the primary breadwinner is responsible for 82.4% of the total household revenues. The biggest proportion of the respondents' households (43.8%) have a total household income of P3001 to P6000 per month, 30.7% have P3,000 and below and only 3.1% have more than P15,000.

Table 6. Distribution of Respondents According to their Number of Working Household Members and Total Household Income (N = 192)

Categories	Frequency	Percent
No. of Working Household Members		
None	4	2.1
1 - 2	166	86.5
3 – 4	17	8.9
5 – 6	5	2.6
Total	**192**	**100.0**
Mean = 1.62		SD = 0.93
Total Household Monthly Income (PhP)		
P3000 and below	59	30.7
P3001 – P6000	84	43.8
P6001 - P9000	24	12.5
P9001 - P12000	13	6.8
P12001 - P15000	1	0.5
More than P15000	6	3.1
No answer	5	2.6
Total	**192**	**100.0**
Mean = P5285.89		SD = 5981.04

Data in Table 7 show the estimated yearly household expenses of the respondents for the education of their children, medical expenses, food, clothing, recreation, and utilities. For the education of their children, the respondents spend an average of Php 12,946.17, although more than a third of them (37.5%) have not spent any amount and 12% only spent Php 2,000 or less, 22.4% have spent more than Php 10,000. This is taking unto account that the respondents' households have an average of 1.67 children who were in school.

Regarding their medical expenditures, the data show that the greatest bulk of the respondents (66.1%) were spending Php 2,000 or less and 26% were spending between Php 2,001 to Php 6,000. Only 3.6% were spending more than Php10,000. The respondents spend an average of Php 2,762.88 for medicine.

In terms of their food expenditures, the respondents spend an average of Php 24,414.14 per year with 86.5% of them spending more than Php 10,000. The remaining proportion (13.5%) spend only Php 10,000 or less. For clothing, the majority of the respondents (69.3%) were spending Php 2,000 or less per year. Only 5.2% were spending more than Php 10,000. On the average, the respondents are spending Php 2,345.55 per year for clothing alone.

Although one third of the respondents did not give any answer for their recreation expenditures, 22.9% claimed that they spend Php 2,001 to Php 4,000 for recreation and 21.9% spend Php 2,000 or less. Only 4.2% reported spending more than Php 10,000 for recreation. The respondents were spending an average of Php 4092.16 for recreation per year.

The data also show that less than a quarter (21.4%) of the respondents were spending an average of Php 4,472.63 for utilities. On the lowest end, 5.2% were spending Php 2,000.00 and below and on the highest end, 4.2% were spending more than Php 10,000. Almost 8 out of 10 (78.6%) respondents did not report any expenditure for utilities.

Table 7. Distribution of Respondents According to their Estimated Household Expenses per Year (N = 192)

Categories	Frequency	Percent
Education of Children		
P2000 and below	23	12.0
P2001 – P4000	18	9.4
P4001 – P6000	17	8.8
P6001 – P8000	12	6.3
P8001 - P10000	7	3.6
P10001 and above	43	22.4
None	72	37.5
Total	**192**	**100.0**
Mean = P12945.17		SD = P16733.83
Medical Expenses		
P2000 and below	127	66.1
P2001 - P4000	31	16.1
P4001 - P6000	19	9.9
P6001 - P8000	3	1.6
P8001 - P10000	1	0.5
P10001 and above	7	3.6
None	4	2.1
Total	**192**	**100.0**
Mean = P2762.88		SD = P8261.06
Food		
P2000 and below	10	5.2
P2001 – P4000	6	3.1
P4001 – P6000	7	3.6
P8001 – P10000	3	1.6
P10001 and above	166	86.5
Total	**192**	**100.0**
Mean = P24414.14		SD = P17248.55
Clothing		
P2000 and below	133	69.3
P2001 - P4000	16	8.3
P4001 - P6000	23	12.0
P6001 - P8000	1	0.5
P10001 and above	10	5.2
No Answer	9	4.7
Total	**192**	**100.0**
Mean = P2345.55		SD = P3620.22
Recreation		
P2000 and below	42	21.9
P2001 - P4000	44	22.9
P4001 - P6000	23	12.0
P6001 - P8000	7	3.6
P8001 - P10000	4	2.1
P10001 and above	8	4.2
No Answer	64	33.3
Total	**192**	**100.0**
Mean = P4092.16		SD = P4524.92
Utilities		
P2000 and below	10	5.2
P2001 - P4000	7	3.6
P4001 - P6000	8	4.2
P6001 - P8000	5	2.6
P8001 - P10000	3	1.6
P10001 and above	8	4.2
No Answer	151	78.6
Total	**192**	**100.0**
Mean = P4472.63		SD = P6455.26

For their total household expenditures, the respondents spent an average of Php 45,723.25 per year. The greatest proportion of them (33.9%) spent more than Php 50,000, 22.4% spent Php 30,001 to Php 40,000 and only 5.2% spent Php 10,000 and below (Table 8). Based on the average figures, the bulk of their household expenditures went to food (Php 24, 414.14), followed by education of children (Php 12, 945.17), utilities (Php 4. 472.63), recreation (Php 4, 092.16), medical (Php 2, 762.88), and clothing (Php 2, 345.55). With a mean household size of 4.74, it is estimated that each household member spends an average of Php 9, 646.26 per year or Php 803.85 per month.

Table 8. Distribution of Respondents According to their Estimated Total Household Expenses per Year (N = 192)

Total Expenses	Frequency	Percent
P10,000 and below	10	5.2
P10001 – P20000	18	9.4
P20001 – P30000	31	16.1
P30001 – P40000	43	22.4
P40001 – P50000	25	13.0
P50001 and above	65	33.9
Total	**192**	**100.0**
Mean = P45,723.25		SD = 30,332.02

Considering the average monthly household income of the respondents of P5285.89 per month or P63,430.68 per year, the respondents' households can save an average of P17,707.43 per year or 27.9% of their total household income.

Perceptions and Aspirations

In the study, the respondents were asked about the situation of their respective households five years ago, at present and five years hence, results of the study revealed that the majority of the respondents (60.9%) considered their household situation five years ago to be on the minimum subsistence level. About one fifth (20.3%) were on the health and decency level, 16.1% were on the poverty level and 2.6% were on the comfort level (Table 9).

Table 9. Distribution of Respondents According to their Perceived Household Situation Level Five Years Ago (N =192)

Household Situation Level	Frequency	Percent
Poverty	31	16.1
Minimum subsistence	117	60.9
Health and decency	39	20.3
Comfort	5	2.6
Total	**192**	**100.0**

Comparing their household condition five years ago with their present situation, the majority (63.5%) perceived it to be similar. The same proportion of respondent (18.2%) claimed that they are either relatively poorer or relatively better (Table 10). Data in Table 11, however, show that 75.0% of the respondents perceived themselves to be in the minimum subsistence level, 14.1% in the health and decency level, 10.4% in the poverty level and only 0.5% in the comfort level. The data in Table 9 and Table 11 indicate that the proportion of those in the minimum subsistence level increased by 14.1% due to 5.7% and 8.3% of the respondents perceiving that their household situation has improved and declined, respectively.

Comparing their present household situation and their perceived situation five years hence, more than half of the respondents (53.6%) claimed of a relatively better situation, 40.1% perceived a similar situation and 6.3% perceived a relatively poorer situation (Table 11). This perceived change in their household situation is manifest in Table 11 by the decrease in the proportion of those in the lower two levels by 28.7% and the increase in the proportion of those in the higher levels by the same proportion of the respondents. The respondents who perceived that they were in the poverty level at present has declined from 10.4% to 3.1% and those on the minimum subsistence level has declined from 75.0% to 53.6% while those on the health and decency level and on the comfort level has increased from 14.1% to 33.3% and from 0.5% to 9.9%, respectively.

Table 10. Distribution of Respondents According to their Comparison of their Household Condition Five Years Ago with their Present Condition (N = 192)

Category	Frequency	Percent
Relatively the same	122	63.5
Relatively poorer	35	18.2
Relatively better	35	18.2
Total	**192**	**100.0**

Table 11. Distribution of Respondents According to their Perception of their Household Situation Level (N = 192)

Category	Frequency	Percent
Household Situation Now		
Poverty level	20	10.4
Minimum subsistence level	144	75.0
Health and decency level	27	14.1
Comfort level	1	0.5
Total	**192**	**100.0**
Perceived Household Situation Five Years from Now		
Relatively the same	77	40.1
Relatively poorer	12	6.3
Relatively better	103	53.6
Total	**192**	**100.0**
Aspired Household Situation Level Five Years from Now		
Poverty level	6	3.1
Minimum subsistence level	103	53.6
Health and decency level	64	33.3
Comfort level	19	9.9
Total	**192**	**100.0**

The respondents were also asked of their perception of the situation of their communities five years ago, at present and five years hence. Their comparison is reflected in Table 12 and Table 13. The data show that the majority (54.7%) of the respondents perceived the present condition of their communities to be relatively better than its situation five years ago. The majority of the respondents (71.3%) further perceived their communities as relatively better five years hence.

On the other hand, 31.8% and 25.0% of the respondents perceived the situation of their communities to be relatively the same five years ago and five years hence, respectively, while 13.5% and 3.6% of the respondents perceived the situation of their communities to be relatively poorer five years ago and five years hence, respectively.

Table 12. Distribution of Respondents According to their Comparison of their Community Situation Five Years Ago with the Present (N = 192)

Category	Frequency	Percent
Relatively the same	61	31.8
Relatively poorer	26	13.5
Relatively better	105	54.7
Total	**192**	**100.0**

Table 13. Distribution of Respondents According to their Aspired Community Situation Five Years from Now (N = 192)

Category	Frequency	Percent
Relatively the same	48	25.0
Relatively poorer	7	3.6
Relatively better	137	71.3
Total	**192**	**100.0**

Presented in Table 14 to Table 17 are the aspirations of the respondents. As shown in Table 14, the majority (65.6%) want to be known only in their respective barangays. About one fifth of them (19.8%) do not want to be known, while the rest, (12.5%, 1.6% and 0.5%), want to be known in their municipality/city, province and through out the country, respectively.

About half (50.5%) of respondents wanted to be economically stable, 33.9% wanted to remain a fisherman but a successful one, 9.4% wanted to own a business enterprise and the rest have other general aspirations in life (Table 15). With regards to their aspired education for their children, more than three fourths (76.6%) of the respondents wanted their children to finish college while 13.5% and 4.2% wanted their children to finish high school and elementary, respectively; moreover, 2.1% and 0.5% wanted their children to finish Master's and Doctorate degrees, respectively (Table 16).

When respondents were asked if they wanted their children to become fishermen like them, 75.0% answered in the negative and only 19.3% wanted their children to be likewise fishermen (Table 17). Those who did not want their children to become fishermen like them indicated that they wanted their children to finish their studies (36.1%), they consider fishing as a difficult and risky job (12.5%), and they do not want their children to experience what they have experienced (10.4%). Those who wanted their children to be likewise fishermen reasoned out that they needed help in fishing (35.1%), their children should follow their footsteps (19.0%), they can help increase their household income (16.2%), the children themselves wanted to be fishermen (13.5%) and that they cannot do anything else but go into fishing (10.8%).

Table 14. Distribution of Respondents According to How Prominent they Want Themselves to be (N = 192)

Prominence	Frequency	Percent
Not known	38	19.8
Known in the barangay	126	65.6
Known in the municipality/city	24	12.5
Known in the province	3	1.6
Known throughout the country	1	0.5
Total	**192**	**100.0**

Table 15. Distribution of Respondents According to their General Aspirations in Life (N = 192)

General Aspirations	Frequency	Percent
To be economically stable	97	50.5
To own a business enterprise	18	9.4
To travel and become successful in business	3	1.6
To remain a fisherman but a successful one	65	33.9
Others	9	4.7
Total	**192**	**100.0**

Table 16. Distribution of Respondents According to the Level of Education they Want their Children to Attain (N = 192)

Aspired Education for Children	Frequency	Percent
Elementary graduates	8	4.2
High school graduates	26	13.5
College graduates	147	76.6
Master's degree graduates	4	2.1
Doctorate graduates	1	0.5
Others	6	3.1
Total	192	100.0

Table 17. Distribution of Respondents as to Whether or Not they Want their Children to Become Fishermen (N = 192)

Category	Frequency	Percent
Yes	37	19.3
No	144	75.0
No answer	11	5.7
Total	192	100.0
Reasons for Wanting their Children to become Fishermen (N = 37)		
To help me in fishing	13	35.1
To follow our footsteps	7	19.0
To add income	6	16.2
They want to be fishermen	5	13.5
They can't do anything	4	10.8
They are used to fishing	1	2.7
Nothing wrong with fishing	1	2.7
Total	37	100.0
Reasons for not Wanting their Children to become Fishermen (N = 144)		
They should have a stable job	9	6.3
They should work in office	3	2.1
It is tiring to do fishing	4	2.8
No permanent income	5	3.5
They should finish their studies	52	36.1
They should engage in business	1	0.7
They should not experience what we have experienced	15	10.4
Risky and difficult to go fishing	18	12.5
Fish is becoming scarce	7	4.9
Children are girls	2	1.4
They are not interested	7	4.9
More fishermen than fish	1	0.7
Depends on their decision	4	2.8
No answer	16	11.1
Total	144	100.0

Discussion

The estimated average monthly household income of the respondents which is P63,430.68 per year is very low compared to the estimated average monthly income of Filipino families which is P144,039.00 (NSCB, 2000). Based also from the data of the National Statistics Coordination Board (NSCB), the average savings of Filipino families in the year 2000 is P26,037.00 which is again, higher than the average household savings of the fisherfolks covered by this study which amounted only to P17,707.43. When the average family income and savings of the fisherfolks are further compared with the average income and savings of the families in Central Visayas (Region VII), result shows that their average family income is lower than the Region VII data (P77,819.00) but their average savings is higher than those of the families in Region VII (P12,241.00).

The computed average monthly and annual income of the respondents are based on the assumption that they are regularly doing fishing and other income generating activities. It should be noted that oftentimes, they have also encountered problems like low fish catch, destroyed or lost accessories and bad weather conditions. Considering these factors and a high dependency ratio of 1:3, it is justifiable that the respondents will view their present condition to be in a minimum subsistence level. This is also the main reason why there is a discrepancy between the average number of school age children and the mean number of children who are in school. It is therefore, very important that the social preparation and community organizing stage as well as the support activities for livelihood and financial resources mobilization shall be given importance during the MPA establishment. As mentioned in the study of Alcala (1998), and Alcala and Russ (2000), a community should be given the opportunity to identify its own needs and the problems to improve their socio-economic well-being.

The perception of the majority of the respondents that the present condition of their communities is relatively better than its situation five years ago and that their communities are also relatively better five years from now supports the findings of the study of A.C. Alcala (2005) which indicated that the MPAs have caused the improvement of fisheries, marine biodiversity and livelihood of stakeholders in a number of cases.

The majority of the respondents aspire a better future for their family. They want their children to finish college or even acquire advanced degrees and do not want them to become fishermen. These findings are also consistent with the result of the study conducted in mainland Dauin and Apo Island by Oracion, Caballes and Lobaton (2005). Results of their study revealed that the fishermen want their children to become nurses and work outside the country in order to receive higher salary. They also aspire that their children will become seafarers overseas, draftsmen, policemen, electricians, artists and government workers.

The findings of the study which show the observation of the respondents that the fish population increased, fish catch improved and illegal fishing was controlled support the findings of Oracion (2002), and Pomeroy, Oracion, Caballes, and Pollnac (2003). Results of their study revealed that the sanctuaries are in better conditions and that the majority of the stakeholders gave favorable rating to the present condition of marine sanctuaries. This resulted in an improved condition of fish and corals. Their positive perceptions about the general condition of the fishery and marine resources in the community are all attributed to the effective management of marine sanctuaries.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions can be drawn from the study:

1. The respondents in the study are generally, in their middle ages, males, married and elementary educated. They were directly involved in the fishing industry in their respective areas. Most of them consider fishing as their primary income source with an average income of P2,773.39 per month. The respondents were receiving an average of P4,357.19 per month from primary and secondary income sources.

2. Their average household size of the respondents was 4.74 members with an average age of 29.9 years, indicating that the households have relatively young members. The average number of working members is 1.6 with an average earning of P5,264.3 per month.

3. As a whole, the respondents spend an average of Php 45,723.25 per year. Based on average figures, the bulk of their household expenditures went to food, followed by education of children and utilities. The respondents' households are capable of saving as much as

P17,448.35 per year or 27.5% of their total household income.

4. Majority of the respondents considered their household situation five years ago on the minimum subsistence level. Comparing their present household situation and their perceived situation five years from now, more than half of the respondents claimed of a relatively better situation. The majority of the respondents also perceived the present condition of their communities to be relatively better than its situation five years ago.

5. Majority of the respondents want to be known only locally in their respective barangays. They want to be economically stable and want their children to finish college. Three-fourths of the respondents do not want their children to become fishermen.

Based on the findings and conclusions of this study, the following recommendations are given to improve the operations of the MPAs:

1. Results of this study should be presented to the different stakeholders of the MPAs covered by this study for validation and feedback.

2. As a result of MPA declaration of their area, most of the respondents perceived that the present condition of their communities to be relatively better than the situation five years ago. It can be assumed that this perception is an indicator of a positive impact of the MPA declaration of their fishing area. The perceived positive impact could be due to the way they manage the MPAs. It is therefore, recommended that their management practices, linkages with other organizations, perceived opportunities and constraints within their organization be further studied.

3. Impact of MPA on activities in tourism industry and tourism-related livelihoods should also be studied.

4. It is also recommended that government and non-government agencies responsible for MPA establishment shall come up with a set of indicators for MPA evaluation to determine whether or not goals and objectives are achieved. These indicators shall cover governance, biophysical and socioeconomic aspects.

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