Demographic Profiling, Socio-Economic Analysis, and Training Needs of Purok 1-4, Barangay Mabini, Aborlan, Palawan

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The Asian Conference on Education & International Development 2025
Official Conference Proceedings

Abstract

This study was conducted from March to August 2024 to determine the demographic profiling, socio-economic analysis, and training needs of Purok 1-4 of barangay Mabini, Aborlan, Palawan. The descriptive research design specifically the survey method was used in this study. Data were gathered through survey questionnaires. A total of 185 households were randomly selected as the respondents of the study. The most significant findings show that the majority of the group are young adults – from 18 to 31 years old, mostly female and about 30% of them earn less than ₱10,000.00 ($172.11) a month. The study emphasizes the lack of knowledge about local customs and the people rely on few basic foods, without much variety, with rice as the main part of their diet. Economic analysis, on the other hand, shows that almost all families spend less than ₱5,000.00 ($86.05) a month for education, food, and other living expenses, thus signifying the difficulties they face. The assessment of the training needs identifies the biggest need for workshops on topics such as Biowaste Processing, Agricultural Machinery Maintenance, and Electrical Wiring among many other skills while Basic Surveying and AutoCAD skills are found to be less demanding. The study concludes that focused training programs are enormously needed to boost locals' expertise and economic capability. Proposed courses involve local instructors and community participation that promise to solve present-day problems. This study is a platform that will influence other interventions and by so doing lead the way for the betterment of the Mabini.

Keywords: Barangay Mabini, training needs, residents, development, farmer

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Introduction

Background of the Study

As part of Western Philippine University's (WPU) mission to provide quality instruction, research, and extension programs, researchers carried out a baseline survey in Purok 1-4, Barangay Mabini, Aborlan, Palawan. The purpose of the survey is to collect data on the current conditions, attitudes, and behaviors of the target population. This data will serve as a benchmark for measuring and evaluating progress throughout the project cycle. The project aims to implement training programs for various engineering disciplines at WPU.

Griffith et al. (2016) emphasized that demography can connect diverse research areas in ecology and evolution, offering promising avenues for innovation and bridging the gap between population dynamics and other disciplines. The study aims to assess the demographic and socio-economic conditions of residents in Barangay Mabini. The findings would inform targeted interventions by the local government. Additionally, the study would contribute to the academic repository of WPU and serve as a reference for any relevant training initiatives in the area.

Significance of the Study

The study would benefit the following:

- Barangay Mabini Officials: This study would provide demographic and socio-economic information about the residents of Barangay Mabini. It would aid in the development of appropriate interventions that the Barangay government can implement.
- The University: This study would enhance the academic repository of the University and serve as a reference for relevant training programs conducted in Barangay Mabini.
- Future Researchers: The study would serve as a valuable reference for future research conducted in the same locale.

Objectives of the Study

The study that would be conducted in Barangay Mabini has the following objectives:

1. To determine the demographic characteristics of its residents.
2. To assess its socio-economic status
3. To evaluate its economic condition
4. To analyze its organizational and political partnerships.
5. To examine its housing characteristics and community infrastructures.
6. To assess its health, sanitation, and environmental practices.
7. To identify its priority needs and problems.
8. To conduct the training needs assessment of the said Barangay.

Scope and Limitations of the Study

This study focused on the 185 randomly selected households of Barangay Mabini. The collected data would be limited to the demographic profile, socio-economic status, and training needs assessment. It would be collected through survey questionnaires. The

respondents would be only those 18 years old and above, and only one (1) respondent would be chosen per household.

Operational Definition of Terms

- Demographic Profile – refers to the demographic characteristics of the respondents, such as gender, civil status, and educational attainment.
- Household – a social unit composed of those living together in the same dwelling.
- Organizational and Political Partnerships – refers to the organizational and political involvement of the respondents.
- Training – refers to the skills training in fields such as Agricultural Biosystems Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

Methodology

Locale of the Study

The study be conducted at Purok 1-4 of Barangay Mabini from March to August 2024.

Research Design

The research design used in this study was the descriptive research method, specifically, the survey method.

Sampling Procedure

The sample size would be computed using Slovin's formula ( ) with a margin of error, e = 0.05.

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The respondents would be selected using random sampling.

Respondents of the Study

The respondents of the study would be 18 years old and above residents of Barangay Mabini. One respondent would represent each household.

Instrumentation

The survey questionnaire would be composed of eight parts namely: Personal Information; Socio-Cultural Profile; Economic Profile; Political and Organizational Partnerships; Housing Characteristics and Community Infrastructure; Health, Sanitation, and Environmental Practices; Priority Needs and Problems; and Training Needs Assessment.

Data Collection Procedure

The researchers would be conducting an on-site interview using the survey questionnaire as a guide. It would be done after obtaining permission from the Barangay Captain of Barangay Mabini, Aborlan, Palawan.

Treatment of Data

The data collected be analyzed using descriptive statistics. It would include methods such as, but not limited to, frequency counts, mean, and percentages that would represent the population.

Results and Discussion

This chapter presents the data and table form, statistically analyzed and interpreted. These were arranged according to the logical order of the problem.

Demographic Characteristics of the Respondents

Table 1 presents the demographic profile of selected residents from Barangay Mabini, Aborlan, Palawan, detailing their age, gender, civil status, educational attainment, and monthly income, with a total of 185 respondents participating in the study.

Table 1
Distribution of the Respondents as to their Demographic Characteristics

Characteristics	Frequency (n = 185)	Percentage
Age		
18-31	52	28.11
32-45	46	24.86
46-59	49	26.49
60-73	31	16.76
74-87	7	3.78
Gender		
Male	69	37.30
Female	116	62.70
Civil Status		
Single	37	20.00
Married	125	67.57
Separated	11	5.95
Single Parent	12	6.49
Highest Educational Attainment		
College Graduate		
TechVoc Course Graduate	41	22.16
College Level		
High School Graduate	10	5.41
High School Level	42	22.70
Elementary Graduate	36	19.46
Elementary Level	28	15.14
	16	8.65
	12	6.49
Monthly Income		
<10000	129	69.73
10001 – 20000	36	19.46
20001 – 30000	10	5.41
30001 – 40000	2	1.08
40001 – 50000	2	1.08
>50000	6	3.24

The survey data shows a notable middle-aged demographic, with individuals aged 18-31 making up 28.11% of the sample. The 46-59 age group follows closely, representing 26.49%. A significant portion of the respondents is young, with 62.70% identifying as female and 37.30% as male. Most respondents are married, accounting for 67.57%, while singles make up 20.00%. A large number of participants have completed higher education, although a considerable percentage have not. Additionally, many respondents report an income below ₱10,000 monthly, indicating low income levels and limited access to resources and opportunities. The survey underscores the need to understand community living conditions to assess needs and guide the development of effective corporate social responsibility (CSR) initiatives. Community surveys offer valuable insights into the socioeconomic landscape, which is essential for crafting relevant and impactful CSR strategies. Research highlights the link between community conditions and the success of CSR initiatives aimed at enhancing them.

Socio-Cultural Characteristics of the Respondents

The socio-cultural characteristics of the respondents from Barangay Mabini, Aborlan, Palawan, as presented in Tables 2 to 3, reflect the educational, dietary, and cultural participation patterns within the community.

The first part contains 6 different statements regarding the number of schooling household members which the respondents have answered. 0, 1, 2, 3, 4, 5, or 6 are the choices given.

Table 2.1
Distribution of the Number of Students per Household

Characteristics	Frequency (n = 185)	Percentage
No. of household members in school age		
0	82	44.32
1	44	23.78
2	29	15.68
3	22	11.89
4	5	2.70
5	2	1.08
6	1	0.54
No. of household members in school		
0	93	50.27
1	39	21.08
2	27	14.59
3	19	10.27
4	5	2.70
5	1	0.54
6	1	0.54
No. of Pre-school ones		
0	168	90.81
1	17	9.19
2	0	0
3	0	0
4	0	0
5	0	0

No. of Elementary ones		
0	131	70.81
1	42	22.70
2	12	6.49
3	0	0
4	0	0
5	0	0
No. of High School ones		
0	126	68.11
1	41	22.16
2	13	7.03
3	4	2.16
4	0	0
5	1	0.54
No. of College ones		
0	141	76.22
1	36	19.46
2	8	4.32
3	0	0
4	0	0

The study indicates that a notable number of respondents in Barangay Mabini lack formal education, with 44.32% of the sample reporting that they do not have children of school age. This could be attributed to a demographic trend favoring older individuals or families without children. Additionally, a considerable portion of households (50.27%) is not engaged in schooling, implying that larger families with multiple students are less prevalent than those with fewer children. A striking 90.81% of households do not have preschool students, and 70.81% do not have elementary students. Furthermore, 68.11% of families do not have high school students, with more families having one or two children compared to those with elementary schoolers. Lastly, 76.22% of households lack college students, with many having only one or two. Factors contributing to this pattern include economic conditions, attitudes towards education, early marriage and family formation, the average number of children, and cultural traditions.

The second part contains statements regarding the types of foods the respondents consume, which the respondents have answered. Foods are categorized in terms of carbohydrates, proteins, vegetables, fruits, and beverages.

Table 2.2
Carbohydrates Consumed by the Respondents Daily

Meal	Frequency (n = 185)	Percentage
Breakfast		
rice	163	88.11
bread	2	1.08
rice and banana	5	2.70
rice and bread	1	0.54
rice and sweet potato	4	2.16
rice, bread, and noodles	1	0.54
rice, banana, and sweet potato	1	0.54
none	8	4.32
Lunch		
rice	179	96.76
bread	0	0
rice and banana	2	1.08
rice and bread	0	0
rice and sweet potato	0	0
rice, bread, and noodles	0	0
rice, banana, and sweet potato	0	0
none	4	2.16
Dinner		
rice	180	97.30
bread	0	0
rice and banana	0	0
rice and bread	0	0
rice and sweet potato	1	0.54
rice, bread, and noodles	0	0
rice, banana, and sweet potato	0	0
none	4	2.16

The survey indicates that rice is the main carbohydrate for breakfast, enjoyed by 88.11% of participants, highlighting regional dietary preferences. Bread comes next, followed by fruits and other starches. For lunch, a significant 96.76% of respondents choose rice as their carbohydrate source, underscoring its role as a staple food. Dinner habits mirror those of earlier meals, with 97.30% of respondents still opting for rice. The minimal presence of alternative carbohydrate sources, such as sweet potatoes, further underscores the dominance of rice in these meals.

Table 2.3
Protein Consumed by the Respondents Daily

Meal	Frequency (n = 185)	Percentage
Breakfast		
meat	10	5.41
fish	63	34.05
eggs	43	23.24
eggs and fish	9	4.86
eggs and meat	1	0.54
meat and fish	6	3.24
eggs, meat, and fish	31	16.76
none	22	11.89
Lunch		
meat	27	14.59
fish	103	55.68
eggs	11	5.95
eggs and fish	2	1.08
eggs and meat	0	0
meat and fish	28	3.24
eggs, meat, and fish	1	0.54
none	13	7.03
Dinner		
meat	54	29.19
fish	79	42.70
eggs	5	2.70
eggs and fish	3	1.62
eggs and meat	0	0
meat and fish	32	17.30
eggs, meat, and fish	0	0
none	4	2.16

Table 2.3 indicates that fish is the top protein choice for breakfast, with eggs coming in at 23.24%. However, a notable portion of respondents do not eat any protein in the morning, which suggests they might be skipping breakfast or choosing carbohydrate-heavy options instead. For lunch, fish remains the favorite protein, with 55.68% of people selecting it. In contrast, meat consumption during lunch is relatively low, with just 14.59% including it. At dinner, both meat and fish are consumed, but egg consumption remains minimal.

Table 2.4
Vegetables Consumed by the Respondents Daily

Meal	Frequency (n = 185)	Percentage
Breakfast		
assorted (pinakbet)	65	35.14
okra	1	0.54
bitter gourd	9	4.86
string beans	2	1.08
eggplant	23	12.43
jackfruit	3	1.62
sweet potato tops	8	4.32
bottle gourd	2	1.08
mung beans	1	0.54
squash	5	2.70
bamboo shoots	1	0.54
green peas	3	1.62
banana bud	1	0.54
none	62	33.51
Lunch		
assorted (pinakbet)	67	36.22
okra	5	2.70
papaya	5	2.70
malabar spinach	1	0.54
bitter gourd	4	2.16
string beans	5	2.70
eggplant	8	4.32
malunggay	4	2.16
jackfruit	8	4.32
kamote tops	4	2.16
bottle gourd	1	0.54
sponge gourd	2	1.08
pechay	5	2.70
sweet potato	3	1.62
mung beans	2	1.08
jute leaves	1	0.54
cabbage	2	1.08
squash	6	3.24
none	52	28.11
Dinner		
assorted (pinakbet)	68	36.76
okra	5	2.70
papaya	2	1.08
malabar spinach	1	0.54
bitter gourd	4	2.16
string beans	4	2.16
eggplant	3	1.62
malunggay	3	1.62
jackfruit	8	4.32
kamote tops	4	2.16
bottle gourd	1	0.54
sponge gourd	3	1.62
pechay	4	2.16

mung beans	3	1.62
jute leaves	1	0.54
amaranth	1	0.54
squash	6	3.24
green peas	1	0.54
none	63	34.05

Table 2.4 indicates that pakbet, a traditional Filipino dish, is the most favored vegetable for breakfast, with 35.14% of respondents enjoying it. Lunch choices are more diverse, featuring okra, papaya, and string beans, which are consumed in smaller quantities. Pakbet also plays a significant role in dinner, as 36.76% of people include it in their evening meals. However, 34.05% of respondents skip vegetables at dinner, showing a preference for dishes that are rich in vegetables.

Table 2.5
Fruits Consumed by the Respondents Daily

Meal	Frequency (n = 185)	Percentage
Breakfast		
soursop	3	1.62
jackfruit	2	1.08
young coconut fruit	1	0.54
papaya	3	1.62
apple	5	2.70
banana	103	55.68
guava	1	0.54
calamansi	2	1.08
star apple	4	2.16
watermelon	2	1.08
citrus	1	0.54
tomato	2	1.08
pomelo	1	0.54
pineapple	1	0.54
mango	2	1.08
orange	0	0
none	52	28.11
Lunch		
soursop	1	0.54
jackfruit	8	4.32
young coconut fruit	0	0
papaya	5	2.70
apple	6	3.24
banana	46	24.86
guava	0	0
calamansi	0	0
star apple	3	1.62
watermelon	5	2.70
citrus	1	0.54
tomato	0	0
pomelo	0	0
pineapple	2	1.08
mango	6	3.24

orange	4	2.16
none	98	52.97
Dinner		
soursop	2	1.08
jackfruit	1	0.54
young coconut fruit	1	0.54
papaya	6	3.24
apple	4	2.16
banana	40	21.62
guava	1	0.54
calamansi	2	1.08
star apple	2	1.08
watermelon	3	1.62
citrus	0	0
tomato	0	0
pomelo	0	0
pineapple	0	0
mango	8	4.32
orange	3	1.62
none	112	60.54

The study shows that bananas are the top choice for breakfast, with 55.68% of respondents enjoying them. However, 28.11% skip fruit altogether in the morning, indicating that some people might prefer different food options. For lunch, 24.86% opt for bananas, while 52.97% do not. At dinner, 21.62% include bananas, but 60.54% choose not to, suggesting that fruit consumption is more common earlier in the day and decreases as it goes on.

Table 2.6
Beverage Consumed by the Respondents Daily

Meal	Frequency (n = 185)	Percentage
Breakfast		
coffee	98	52.97
milk	21	11.35
water	1	0.54
juice	0	0
soft drinks	1	0.54
shake	0	0
coffee and milk	46	24.86
none	18	9.73
Lunch		
coffee	19	10.27
milk	7	3.78
water	34	18.38
juice	3	1.62
soft drinks	4	2.16
shake	1	0.54
coffee and milk	0	0
none	117	63.24

Dinner		
coffee	25	13.51
milk	7	3.78
water	46	24.86
juice	0	0
soft drinks	0	0
shake	0	0
coffee and milk	4	2.16
none	103	55.68

Table 2.6 indicates that coffee is the most popular breakfast beverage, favored by 52.97% of those surveyed. Among them, 24.86% prefer their coffee with milk. During lunch, water takes the lead as the most consumed drink, although 63.24% of respondents reported not drinking anything at that time. For dinner, water remains the top choice, with 24.86% opting for it. A significant 55.68% of people also choose not to drink anything at dinner, pointing to a decrease in caffeine consumption.

The third part contains 2 questions regarding the respondents' cultural participation in Barangay Mabini which the respondents have answered. Yes or No is the choice given.

Table 2.7
Cultural Participation of the Respondents

	Frequency (n = 185)	Percentage
Are there any cultural activities conducted in the community?		
Yes	42	22.70
No	143	77.30
If Yes, have you participated in any of these cultural activities		
Yes	34	80.95
No	8	19.05

A significant 77.30% of respondents feel that their community is lacking in cultural activities, which may be attributed to factors such as limited resources, lack of awareness, or poor organization. In contrast, only 22.70% acknowledge the presence of cultural activities, highlighting a disconnect in community involvement. Nevertheless, among those who did recognize cultural activities, 80.95% took part, suggesting a level of positive engagement. The low overall participation rate, however, raises important questions about inclusivity and accessibility.

The data shows a notable middle-aged population, accompanied by a considerable gender imbalance. The majority of respondents are married, and most have either bachelor's or college degrees. However, 69.73% report having low income. Additionally, most households do not have school-age children, suggesting an older demographic trend. Rice serves as the primary carbohydrate, while fish and eggs are the main sources of protein. Cultural engagement appears to be low, with 77.30% of individuals feeling that there are no cultural activities available in their community.

Economic Profile

Table 3.1 below illustrates the business involvement of the respondents. It includes two questions. The first is a close-ended question: "Are you or your family engaged in any business?" The second question, "If yes, what is the nature of your business?" serves as a follow-up for those who answered Yes to the first question.

Table 3.1
Business Involvement of the Respondents

	Frequency	Percentage
Are you or your family engaged in any business?		
Yes	46	24.86
No	139	75.14
If yes, what is the nature of your business?		
Online Selling	1	2.17
Sari-Sari Store	11	23.91
Food Vendor	15	32.61
Grocery Store	3	6.52
Poultry Supplier	1	2.17
Fried Chicken Store	1	2.17
Hollow Blocks Making	2	4.35
Money Lending	2	4.35
Piggery	1	2.17
Buy and Sell	2	4.35
Retailer	2	4.35
Eatery	1	2.17
Bamboo Crafting	1	2.17
Boarding House	1	2.17
Wholesale Reseller	1	2.17

A significant 75.14% of respondents are not engaged in any business activities, highlighting a low level of entrepreneurial involvement. The most common type of business is food vending, with sari-sari stores and grocery stores following closely behind. While the range of business types indicates limited overall participation, those who are involved are active across different sectors.

Table 3.2 below shows the monthly expenditures of the households in terms of children's education, medical expenses, food, clothing, recreation, utilities, and others.

Table 3.2
Monthly Expenditures of the Households

	Frequency (n = 185)	Percentage
Education of Children		
<5001	164	88.65
5001 – 10000	14	7.57
10001 – 15000	4	2.16

15001 – 20000	2	1.08
>20000	1	0.54
Medical Expenses		
<5001	175	94.59
5001 – 10000	6	3.24
10001 – 15000	3	1.62
15001 – 20000	1	0.54
>20000	0	0
Food		
<5001	120	64.86
5001 – 10000	43	23.24
10001 – 15000	12	6.49
15001 – 20000	5	2.70
>20000	5	2.70
Clothing		
<5001	181	97.84
5001 – 10000	3	1.62
10001 – 15000	1	0.54
15001 – 20000	0	0
>20000	0	0
Recreation		
<5001	183	98.92
5001 – 10000	1	0.54
10001 – 15000	1	0.54
15001 – 20000	0	0
>20000	0	0
Utilities		
<5001	171	92.43
5001 – 10000	10	5.41
10001 – 15000	2	1.08
15001 – 20000	1	0.54
>20000	1	0.54
Others		
<5001	183	98.92
5001 – 10000	1	0.54
10001 – 15000	0	0
15001 – 20000	0	0
>20000	1	0.54
TOTAL		
<10001	96	51.89
10001 – 20000	54	29.19
20001 – 30000	16	8.65
30001 – 40000	8	4.32
40001 – 50000	5	2.70
>50000	6	3.24

The data indicates that 88.65% of households spend less than ₱5,001.00 ($85.18) on children's education, while 94.59% allocate under ₱5,001.00 for medical expenses. Food expenditures are also modest, with 64.86% of households spending below ₱5,001.00. Clothing costs are particularly low, as 97.84% spend less than ₱5,001.00. Additionally, recreational spending is minimal, with 98.92% of households keeping their expenses under ₱5,001.00. Utility costs are low as well, which may be attributed to energy-saving practices or limited access to expensive utility services.

Most households maintain low monthly spending, indicating a frugal lifestyle. 88.65% spend less than ₱5,001.00 on children's education and 94.59% on medical expenses. This suggests limited access to expensive services and a preference for affordable alternatives.

Table 3.3 below shows the engagement of the respondents in terms of farming and fishing.

Table 3.3
Engagement of the Respondents in Farming and Fishing

	Frequency (n = 185)	Percentage
Are you or any member of your household into farming?		
Yes	40	21.62
No	145	78.38
Are you or any member of your household into fishing?		
Yes	1	0.54
No	184	99.46

The survey found that 21.62% of participants are involved in farming, while a significant 78.38% are not. Fishing participation is also minimal, with just 0.54% of respondents taking part. Most respondents (99.46%) indicated they do not engage in fishing activities, which may point to limited access to resources or a preference for other forms of livelihood. These low engagement levels could be attributed to socio-economic factors, such as the availability of resources or cultural preferences.

Organizational and Political Involvement

Table 4.1 below shows the results of the 185 respondents' answers from the organizational involvement survey questionnaire distributed to each of them in terms of frequency and percentage.

Table 4.1
Organizational Involvement of the Respondents

	Frequency	Percentage
Are there any organizations in your community?		
Yes	133	71.89
No	52	28.11
Are you or any member of your household a member of any of these organizations?		
Yes	57	30.81
No	128	69.19
If yes, what is your/their membership status?		
Active	55	96.49
Inactive	2	3.51

A significant portion of respondents (71.89%) recognize the existence of community organizations, highlighting a robust framework for social cohesion and support networks. However, only 30.81% are actual members, pointing to possible obstacles to participation. The majority (69.19%) are not involved, indicating that these organizations may not be successfully engaging the community. Among active members, 96.49% are engaged, while a small fraction (3.51%) are inactive. Identifying the barriers to membership is essential for organizations aiming to enhance community involvement and support.

Table 4.2
Political Involvement of the Respondents

	Frequency	Percentage
Have you voted in the last election?		
Yes	178	96.22
No	7	3.78
Have you been a candidate for any elective position?		
Yes	23	12.43
No	162	87.57
If yes, what level?		
Barangay	22	95.65
Municipal	1	4.35
Provincial	0	0

A significant number of respondents took part in the last election, showing a strong dedication to the electoral process. However, only 12.43% have ever pursued an elective position, which points to possible barriers to candidacy. The vast majority (87.57%) have not tried to run, revealing a potential shortfall in political representation. Most individuals aimed for positions at the barangay level, indicating a focus on local involvement rather than higher

government roles. Grasping these dynamics could foster increased political engagement and representation within the community.

Table 4.3
Knowledge of the Respondents on Barangay Regular Assembly Meetings

	Frequency	Percentage
Is there any regular assembly meeting in the barangay?		
Yes	174	94.05
No	11	5.95
If yes, how often is the Barangay assembly meeting conducted?		
Monthly	49	28.16
Quarterly	91	52.30
Twice a year	24	13.79
Once a year	10	5.75

Most respondents in their barangay are aware of regular assembly meetings, which play an important role in community governance. The frequency of these meetings differs, with 52.30% occurring quarterly, 28.16% monthly, and a smaller portion happening twice a year or once a year. This indicates that the current frequency might not be sufficient for all members to participate regularly. Exploring the reasons for this frequency could lead to a more engaged community.

The study underscores the crucial role of Barangays in fostering community engagement and advancing the Sustainable Development Goals (SDGs) in the Philippines. It stresses the value of lifelong learning, self-determination, inclusion, and collaboration within community organizations and political processes (Ancho et al., 2022).

Housing Characteristics and Community Infrastructures

Table 5.1 below shows the results of the 185 respondents' answers from the housing characteristic survey questionnaire distributed to each of them in terms of frequency and percentage.

Table 5.1
Housing Characteristics

	Frequency	Percentage
Source/means of lighting		
PALECO	155	83.78
solar power	5	2.70
candle	1	0.54
PALECO, solar power	24	12.97
Fuel used for cooking		
LPG	29	15.68
charcoal	100	54.05
firewood	12	6.49
electricity	1	0.54
LPG and charcoal	19	10.27
LPG and firewood	1	0.54
charcoal and firewood	21	11.35
charcoal and electricity	2	1.08

A significant majority of respondents (83.78%) depend on PALECO for lighting and charcoal for cooking, while only 2.70% utilize solar power. The use of candles is minimal, and 12.97% combine PALECO with solar energy. Charcoal remains the predominant cooking fuel, with LPG being used by 15.68%. Other fuel sources, such as firewood and electricity, are less commonly used. The trend of mixed fuel usage indicates a growing preference for combining various energy sources for cooking. Gaining insights into these housing characteristics can inform local energy policies and initiatives.

Table 5.2
Community Infrastructures

	Frequency	Percentage
Is there a functional road in the Barangay?		
Yes	185	100.00
No	0	0
If yes, what is it made of?		
concrete	185	100.00
Does the Barangay have a functional drainage facility?		
Yes	47	25.41
No	138	74.59
If yes, what type of drainage system?		
Open drainage	43	
Closed drainage	4	
Is there a school in the Barangay?		
Yes	185	100.00
No	0	0

If yes, what type of school/s is/are present?		
Elementary School	185	100.00
High School	0	0
Is there a functional health center in the Barangay?		
Yes	185	100.00
No	0	0
If yes, how often it is open to serve the community?		
Weekdays	185	100.00
Are there recreational facilities in the Barangay?		
Yes	185	100.00
No	0	0
If yes, what are these recreational facilities?		
Basketball court	185	100.00

The barangay boasts a well-kept road network, yet only 25.41% of respondents report having access to a functional drainage facility, which points to possible issues in water management and sanitation. It features an elementary school, a health center, and recreational amenities like a basketball court. However, the absence of adequate drainage facilities highlights areas that need improvement in sanitation and water management. While the community's infrastructure is strong, there are clear opportunities for enhancement, especially regarding drainage systems.

Health, Sanitation, and Environmental Practices

Table 6 below shows the health, sanitation, and environmental practices in Barangay Mabini. Categories included are source of water for drinking/cooking, kind of toilet used, wastewater disposal, and solid waste disposal.

Table 6
Health, Sanitation, and Environmental Practices

	Frequency	Percentage
Source of water for drinking/cooking		
refilling station	39	21.08
BAWASA	10	5.41
faucet	27	14.59
poso	13	7.03
well water	7	3.78
poso and faucet	4	2.16
BAWASA and faucet	14	7.57
Refilling station and faucet	60	24.86
Faucet, BAWASA, and refilling station	8	4.32
Refilling station and mineral water	1	0.54
Faucet, BAWASA, and poso	1	0.54

Refilling station and poso	3	1.62
BAWASA and poso	1	0.54
BAWASA, refilling station, and poso	2	1.08
Refilling station, faucet, and HOSEMO	1	0.54
BAWASA and refilling station	2	1.08
HOSEMO and poso	1	0.54
HOSEMO and distilled water	1	0.54
HOSEMO	2	1.08
Faucet and mineral water	1	0.54
Well water and faucet	1	0.54
Kind of toilet used		
Ceramic type (Pour Flush)	185	100.00
Wastewater disposal		
Pit	17	9.19
Canals	13	7.03
Safety Tank	4	2.16
Wetting soil	64	34.59
Watering plants	35	18.92
Washing animals	7	3.78
Washing vehicles	13	7.03
Cleaning	3	1.62
Watering plants and washing vehicles	6	3.24
Watering plants and wetting soil	10	5.41
Watering plants and canals	6	3.24
Wetting soil and washing vehicle	1	0.54
Watering plants and pits	1	0.54
Watering plants and cleaning	1	0.54
Watering plants, wetting soil, cleaning pigpens	1	0.54
Watering plants, wetting soil, washing vehicles	3	1.62
Solid waste disposal		
Pit	38	20.54
Burning	59	31.89
Garbage collection	41	22.16
MRF	20	10.81
Pit, garbage collection	2	1.08
Burning, garbage collection	6	3.24
Burning, pit	5	2.70
Composting, garbage collection	9	4.86
MRF, burning	3	1.62
Burning, pit, garbage collection	2	1.08

The community depends on several water sources, such as refilling stations and BAWASA, for their drinking and cooking needs. All respondents use ceramic-type toilets, which help maintain hygiene and reduce health risks. Wastewater disposal methods differ, with 34.59% of individuals using it for watering plants and 18.92% relying on canals and safety tanks. Solid waste is mainly disposed of by burning, with garbage collection and a Materials Recovery Facility as secondary options. However, the practice of burning raises concerns regarding air quality and environmental health. The community's proactive approach to

resource management indicates there is room for improvement in waste management and sanitation practices, which could enhance long-term sustainability and health outcomes.

Priority Needs and Problems

Table 7.1 below shows the results of the 555 respondents' answers from the survey questionnaire on the three most serious problems, presented in terms of frequency and percentage.

Table 7.1
Three Most Serious Problems

Entity	Frequency (n = 555)	Percentage
Your Household		
Financial	117	21.08
Health problems	16	2.88
Land dispute	1	0.18
Lack of livelihood programs	30	5.41
Lack of food	38	6.85
Diseases	8	1.44
Debts	2	0.36
Unemployment	1	0.18
Accidents	1	0.18
Electricity	4	0.72
Water	2	0.36
Cleanliness problem	1	0.18
Noise	3	0.54
Conflicts within the family	1	0.18
Vices	1	0.18
Smell of the neighboring slaughterhouse	1	0.18
Transportation	1	0.18
Slow internet connection	1	0.18
None	326	58.74
Your Barangay		
Poor waste management	9	1.62
Poor maintenance of street lights	6	1.08
Lack of financial assistance	2	0.36
Lack of livelihood programs	5	0.90
Lack of security equipment	1	0.18
Cleanliness problem	3	0.54
Communication problem	1	0.18
Unemployment	2	0.36
Bias	1	0.18
Electricity	1	0.18
Lack of funds	11	1.98
Noise	3	0.54
Laziness	1	0.18
Gambling	1	0.18
Vices	1	0.18
Troublemakers	3	0.54
Unpaved roads	1	0.18
Land disputes	1	0.18
Corruption	1	0.18

Burglary	2	0.36
Poor governance	2	0.36
Children's health problem	4	0.72
Gossip	1	0.18
Alcoholism	1	0.18
Problems in project implementation	1	0.18
Local conflicts	2	0.36
None	488	87.93
Men in your Barangay		
Alcoholism	11	1.98
Burglary	1	0.18
Attitude	1	0.18
Financial	6	1.08
Gambling	1	0.18
Nicotine addiction	1	0.18
Noise	1	0.18
Teenage fatherhood	1	0.18
Troublemakers	4	0.72
Unemployment	21	3.78
Vices	3	0.54
None	504	90.81
Women in your Barangay		
Alcoholism	1	0.18
Attitude	1	0.18
Gossip	4	0.72
Laziness	4	0.72
Local conflicts	1	0.18
Noise	2	0.36
Poor parenting	4	0.72
Teenage pregnancy	2	0.36
Unemployment	16	2.88
None	520	93.69
Youth in your Barangay		
Alcoholism	3	0.54
Attitude	1	0.18
Burglary	1	0.18
Lack of assistance from the government	9	1.62
Lack of education	1	0.18
Lack of knowledge about rights	1	0.18
Lack of school facilities	1	0.18
Malnutrition	7	1.26
Mental health problem	1	0.18
Gambling	1	0.18
Nicotine addiction	1	0.18
Noise	5	0.90
Phone addiction	6	1.08
Social media addiction	1	0.18
Teenage pregnancy	2	0.36
Troublemakers	2	0.36
Vices	3	0.54
Unemployment	11	1.98
None	498	89.73

Children in your Barangay		
Lack of food	2	0.36
Health problems	6	1.08
Lack of attention	1	0.18
Lack of playgrounds	1	0.18
Malnutrition	5	0.90
Phone addiction	6	1.08
Scattered on the road	1	0.18
None	533	96.04

The community is grappling with several challenges, including financial struggles, food shortages, and inadequate livelihood programs. Major concerns include poor waste management, insufficient street lighting, and a lack of financial support. Men primarily worry about alcoholism and unemployment, while women express concerns about alcoholism and gossip. Young people are facing a lack of government support and educational opportunities, and children are dealing with food scarcity and health issues. Most respondents do not perceive these problems as significant, indicating a possible lack of awareness or understanding. By addressing these challenges, enhancing waste management, and providing better resources for youth and families, the overall well-being of the community could see substantial improvement.

Table 7.2
Three Most Urgent Needs

Entity	Frequency (n = 555)	Percentage
Your Household		
Educational assistance	1	0.18
Clothes	5	0.90
Dwelling	1	0.18
Appliances	1	0.18
Electricity	1	0.18
Financial help	109	19.64
Financial management	1	0.18
Foods	68	12.25
Basic commodities	1	0.18
Healthcare	4	0.72
House renovation	5	0.90
Feeds for animals	1	0.18
Job	11	1.98
Internet connection	1	0.18
Livelihood programs	12	2.1
Close market proximity	1	0.18
Medicine	5	0.90
Proper waste disposal	1	0.18
Teaching of values and right	1	0.18
conduct	1	0.18
Transportation	1	0.18
Vehicular maintenance	4	0.72
Water	319	57.48
None		

Your Barangay		
Area for facilities	1	0.18
Assistance from government	1	0.18
Clothes	2	0.36
Curfew	2	0.36
Clearing and cleaning pathways	1	0.18
Electricity	1	0.18
Ensured the safety of pedestrian	1	0.18
kids	4	0.72
Food	16	2.88
Funds	1	0.18
Healthcare services	1	0.18
Healthcare facilities	1	0.18
Healthcare personnel	1	0.18
Honest officials	4	0.72
Improvement of governance	7	1.26
Jobs	1	0.18
Medicine	3	0.54
Proper waste management	2	0.36
Security equipment	1	0.18
Sports equipment/facilities	2	0.36
Street lights	1	0.18
Paved roads	3	0.54
Transportation	3	0.54
Support services for those in	1	0.18
need	3	0.54
Water	491	88.47
Unity		
None		
Men in your Barangay		
Discipline	1	0.18
Education	3	0.54
Financial help	13	2.34
Foods	3	0.54
Livelihood programs	22	3.96
Jobs	14	2.52
Proper awareness	1	0.18
Sports equipment/facilities	1	0.18
None	497	89.55
Women in your Barangay		
Education	2	0.36
Clothes	1	0.18
Financial help	10	1.80
Foods	3	0.54
Jobs	12	2.16
Internet connection	1	0.18
Parenting seminars	3	0.54
Livelihood programs	18	3.24
Proper awareness	1	0.18
None	504	90.81

Youth in your Barangay		
Discipline	1	0.18
Education	17	3.06
Financial help	8	1.44
Food	2	0.36
Livelihood programs	7	1.26
Scholarships	1	0.18
Seminars	1	0.18
Sports equipment/facilities	1	0.18
Jobs	3	0.54
None	514	92.61
Children in your Barangay		
Education	10	1.80
Feeding program	3	0.54
Healthcare	16	2.88
Parental guidance	1	0.18
School supplies	2	0.36
Security equipment	1	0.18
None	522	94.05

The community is grappling with several urgent needs, such as financial support, healthcare services, and better governance. For households, the most critical needs are financial assistance, followed closely by food and educational support. At the barangay level, the main priorities are healthcare services and improvements in governance. Men primarily seek financial assistance, along with job opportunities and livelihood programs. Women focus on education and financial aid, while the youth prioritize education, financial support, and livelihood initiatives. Children's needs revolve around healthcare and feeding programs. These urgent needs within the community underscore the potential impact of targeted assistance and intervention, particularly in alleviating financial struggles, improving healthcare services, and broadening educational access.

Training Needs Assessment

Tables 8.1 to 8.4 below show the frequency, percentage, mean score, and the corresponding description of each skill training that can be conducted by Western Philippines University. Trainings that are included are under Agricultural & Biosystems Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

The survey questionnaire contains 24 different statements which the respondents have answered. Have Attended, Not Needed, Needed, or Very Much Needed are the choices given.

Table 8.1 assesses the training needs in the Agricultural Biosystems Engineering field, drawing on the experiences and perceptions of respondents. Biowaste Processing Machineries received an average score of 1.67, with 90% of participants indicating its necessity. Coconut Husk Processing Machineries had an average score of 1.59, with 92 respondents affirming its importance. Watershed Management also scored 1.59, with 87 respondents expressing a need for additional education. Agricultural Machinery, Maintenance, and Operation received a mean score of 1.62, underscoring the vital role of machinery upkeep in enhancing agricultural productivity. Pressurized Irrigation Systems scored 1.55, with 82 respondents deeming it necessary. Structural design was recognized as essential, with 90% of respondents highlighting its importance for improving agricultural

operations. Farmstead Planning received a mean score of 1.60, indicating a demand for further training. This evaluation serves as a valuable resource for pinpointing key areas for training programs and addressing the evolving needs of the agricultural sector.

Table 8.1
Training Needs Assessment of the Respondents (Agricultural Biosystems Engineering)

Training	Have Attended		Not Needed		Needed		Very Much Needed		Mean Score	Description
	f	%	f	%	f	%	f	%		
Biowaste Processing Machineries	8	4.32	66	35.68	90	48.65	21	11.35	1.67	Needed
Coconut Husk Processing Machineries	3	1.62	80	43.24	92	49.73	10	5.41	1.59	Needed
Watershed Management	1	0.54	85	45.95	87	47.03	12	6.49	1.59	Needed
Agricultural Machinery, Maintenance, and Operation	9	4.86	66	35.68	97	52.43	13	7.03	1.62	Needed
Pressurized Irrigation System Design	3	1.62	89	48.11	82	44.32	11	5.95	1.55	Needed
Design of Agricultural Structure	2	1.08	83	44.86	90	48.65	10	5.41	1.58	Needed
Farmstead Planning	6	3.24	75	40.54	88	47.57	16	8.65	1.60	Needed

Legend:
0.00 – 0.49 = Have Attended
0.50 – 1.49 = Not Needed
1.50 – 2.49 = Needed
2.50 – 3.00 = Very Much Needed

In Table 8.2, a training needs assessment was carried out among Civil Engineering respondents, highlighting a significant demand for further education and training in practical skills like carpentry, surveying, and hollow block making. The survey indicated a strong interest in these skills, with 12 respondents having participated in training, 95 identifying them as necessary, and 9 rating them as very much needed. Most respondents felt that masonry skills were sufficiently covered in current training programs, suggesting no immediate need for additional training. Hollow block production was also recognized as necessary, with 7 respondents having attended training and 93 considering it essential. Tile setting was viewed as valuable, with 9 respondents stating it was necessary, 91 affirming its importance, and 84 also deeming it necessary. AutoCAD was seen as unnecessary, with only 3 respondents having received training, indicating a lack of perceived need for this software.

Microsoft Project Management Software was not regarded as essential, suggesting it may be obtained through other means or not prioritized. Addressing these training needs could greatly enhance the skills of Civil Engineering professionals, leading to better project outcomes and opportunities for professional development.

Table 8.2
Training Needs Assessment of the Respondents (Civil Engineering)

Training	Have Attended		Not Needed		Needed		Very Much Needed		Mean Score	Description
	f	%	f	%	f	%	f	%		
Carpentry	12	6.49	69	37.30	95	51.35	9	4.86	1.55	Needed
Basic Surveying	2	1.08	93	50.27	82	44.32	8	4.32	1.52	Needed
Masonry	9	4.86	82	44.32	88	47.57	6	3.24	1.49	Not Needed
Hollow Blocks Making	7	3.78	79	42.70	93	50.27	6	3.24	1.53	Needed
Tile Setting	9	4.86	78	42.16	91	49.19	7	3.78	1.52	Needed
Plumbing	7	3.78	86	46.49	84	45.41	8	4.32	1.50	Needed
AutoCAD	3	1.62	102	55.14	75	40.54	5	2.70	1.44	Not Needed
Google Sketchup	2	1.08	102	55.14	76	41.08	5	2.70	1.45	Not Needed
Microsoft Project Management Software	3	1.62	107	57.84	70	37.84	5	2.70	1.42	Not Needed

Legend:
0.00 – 0.49 = Have Attended
0.50 – 1.49 = Not Needed
1.50 – 2.49 = Needed
2.50 – 3.00 = Very Much Needed

In Table 8.3, a training needs assessment in the Electrical Engineering sector shows a significant demand for training in areas such as Electrical Wiring Installation and Troubleshooting, Electronics Repair and Troubleshooting, and Computer Literacy. The survey indicated that 11 respondents had participated in training, reflecting a strong interest in these skills. The mean score for Electronics Repair and Troubleshooting was 1.71, suggesting a need for skilled technicians to effectively maintain and repair electronic devices. Additionally, the assessment emphasized the critical role of computer literacy in the field, as technology is essential for design, analysis, and troubleshooting. This assessment highlights the necessity for further education and training in key areas of Electrical Engineering to enhance professional skills and drive industry progress.

Table 8.3
Training Needs Assessment of the Respondents (Electrical Engineering)

Training	Have Attended		Not Needed		Needed		Very Much Needed		Mean Score	Description
	f	%	f	%	f	%	f	%		
Electrical Wiring Installation and Trouble-shooting	11	5.95	59	31.89	98	52.97	17	9.19	1.65	Needed
Electronics Repair and Trouble-shooting	2	1.08	63	34.05	107	57.84	13	7.03	1.71	Needed
Computer Literacy	2	1.08	72	38.92	97	52.43	14	7.57	1.66	Needed

Legend:
0.00 – 0.49 = Have Attended
0.50 – 1.49 = Not Needed
1.50 – 2.49 = Needed
2.50 – 3.00 = Very Much Needed

In Table 8.4, the training needs assessment for individuals in Mechanical Engineering is divided into four categories: “Have Attended,” “Not Needed,” “Needed,” and “Very Much Needed.” The areas of Small Engine Troubleshooting, welding, and air conditioning maintenance stand out as the most critical, reflecting a strong demand for these skills. Additionally, the assessment indicates a growing need for training in 3D printing, which is becoming increasingly relevant in the industry. However, the lower interest in 3D printing suggests it may not be a top priority for many respondents. This assessment serves as a valuable resource for pinpointing key training areas and ensuring that educational programs align with the evolving needs of the mechanical engineering workforce. Addressing these training requirements, can enhance project outcomes and foster professional development, ultimately benefiting the Mechanical Engineering field.

Table 8.4
Training Needs Assessment of the Respondents (Mechanical Engineering)

Training	Have Attended		Not Needed		Needed		Very Much Needed		Mean Score	Description
	f	%	f	%	f	%	f	%		
Small Engine Troubleshooting	9	4.86	62	33.51	102	55.14	12	6.49	1.63	Needed
Welding	5	2.70	68	36.76	98	52.97	14	7.57	1.65	Needed
Aircon and Refrigeration Maintenance	2	1.08	79	42.70	89	48.11	15	8.11	1.63	Needed
3D Printing	6	3.24	103	55.68	68	36.76	8	4.32	1.42	Not Needed
Machining	3	1.62	91	49.19	85	45.95	6	3.24	1.51	Needed

Legend:
0.00 – 0.49 = Have Attended
0.50 – 1.49 = Not Needed
1.50 – 2.49 = Needed
2.50 – 3.00 = Very Much Needed

Conclusions

The study examined the demographic and socio-economic conditions, as well as the training needs, of Purok 1-4 in Barangay Mabini, Aborlan, Palawan. It revealed that a majority of respondents are young adults, predominantly females, with many earning less than ₱10,000 per month. This suggests economic challenges, as evidenced by their reliance on rice and minimal spending on essential needs. The assessment of training needs pointed out the importance of workshops in areas like Biowaste Processing, Agricultural Machinery Maintenance, and Electrical Wiring to enhance local skills and improve economic conditions.

The significance of this study lies in its ability to inform local officials and educational institutions about implementing targeted interventions to meet these needs. Future research should focus on obtaining a larger, more diverse sample and investigating barriers to education and employment.

The study highlights the critical need for specialized training programs and community involvement to empower the residents of Barangay Mabini, ultimately promoting community development and improving their quality of life.

Acknowledgments

The researcher would like to take a moment to express his sincere thanks to third-year electrical engineering students for the incredible effort and commitment they have shown in collecting data. Your hard work, creativity, and teamwork have played a crucial role in making this project a reality.

Once again, thank you for all that they did; your contributions have truly made a difference in this work and will surely pave the way for even greater achievements down the line.

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