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# Environmental awareness and eco-friendly practices of youth in San Cirilo, Pasacao, Camarines Sur: An input to proposed policy recommendation

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***Abstract***

This study aimed to determine the level of environmental awareness of youth in San Cirilo, Pasacao, Camarines Sur in terms of responsibility, participation, and behavior, as well as their involvement in eco-friendly practices such as waste segregation, recycling, and clean-up activities. It also examined whether a significant relationship exists between environmental awareness and eco-friendly practices, and explored how the Plastic Bag Prohibition Ordinance of 2020 influences youth awareness and actions despite challenges in community compliance and waste management. Using a descriptive-correlational research design, the study involved 328 youth respondents aged 15–30 years old. Results indicated that the youth exhibited high levels of awareness and actively participated in eco-friendly practices, reflecting a positive response toward environmental initiatives. This engagement is important in supporting community-based environmental management and fostering positive impacts on the environment and society. However, the Pearson r analysis revealed no significant relationship between environmental awareness and eco-friendly practices, suggesting that being aware of environmental issues does not necessarily lead to consistent participation in sustainable actions. This study utilized a descriptive-correlational research design to assess the level of environmental awareness of youth in San Cirilo and to examine its influence on their eco-friendly practices. The descriptive component identified the respondents' level of environmental awareness and the types of pro-environmental behaviors they practice.

Meanwhile, the correlational component determined the statistical relationship between environmental awareness and actual eco-friendly behaviors. The Pearson Product-Moment Correlation Coefficient (Pearson r) was used to measure the strength and significance of the relationship between the two variables.

***Keywords:*** environmental awareness, eco-friendly practices, waste segregation, recycling, clean-up activities

# Environmental awareness and eco-friendly practices of youth in San Cirilo, Pasacao, Camarines Sur: An input to proposed policy recommendation

## 1. Introduction

Environmental awareness is the understanding of the importance of protecting and preserving the natural world for present and future generations. It involves understanding the impact of human activities on the environment, such as pollution, deforestation, and climate change. Climate change is one of the critical concerns because it increases the frequency of natural disasters that result in human casualties, property damage, and economic disruption. Climate change is causing problems in every aspect of human life (Dombrowski et al., 2016; Zeeshan et., 2021).

According to Omoogun et al. (2016) environmental education must go beyond raising awareness to actively shaping attitudes and behaviors that foster a strong sense of responsibility and stewardship towards the environment. They advocate for a deliberate pedagogy embedded in school curricula that integrates knowledge, skills, and values to promote sustainable attitudes and respect for the environment. The study highlights that fostering stewardship requires experiential learning and projects that motivate students to take tangible actions for environmental conservation. This curriculum-driven approach aims to transform awareness into committed environmental responsibility, which is essential to address escalating ecological problems. A descriptive-correlational study conducted by Rogayan Jr. (2019) on science students in a public secondary school revealed a significant positive moderate correlation between environmental awareness and environmental practices. The study found that as students' awareness of environmental concepts and issues increased, their commitment to and practices in addressing environmental problems also improved. Based on these findings, the study recommended the continuous implementation of information dissemination programs and the institutionalization of environmental advocacies within schools as essential measures to enhance students' commitment to biodiversity conservation and ecological management.

This environmental awareness aligns in Sustainable Development Goal number 4 Quality Education, this goal emphasizes the importance of education in promoting sustainable development, which includes increasing awareness about environmental issues and eco-friendly practices among the youth. Also, Sustainable Development Goal 11 aims to build inclusive, safe, resilient, and sustainable cities, which in the Philippines is pursued at the barangay level through youth-led efforts such as waste management, tree planting, and cleanup drives. The law that gives understanding about the environmental awareness of youth is the Republic Act No. 9512 or the National Environmental Awareness and Education Act of 2008 which aims to promote environmental awareness through education at all levels. The law mandates the integration of environmental concepts and principles into the curriculum of schools, from elementary to tertiary levels, as well as in non-formal and technical education. The National Environmental Awareness and Education Act of 2008 support environmental education across all learning levels, yet socio-economic factors still affect access and participation. Therefore, expanding environmental education beyond formal schooling to include community-based programs can promote inclusivity and strengthen collective environmental.

According to Masongsong (2024), this study evaluated the environmental awareness and participation levels of 270 college students at Mindoro State University. Results indicated high levels of environmental awareness and active participation in activities such as waste management and tree planting. The study emphasizes the role of environmental education in fostering community-based environmental management and recommends promoting sustainable practices to minimize environmental footprints. A 2022 study of 222 Filipino youth (ages 15-30) in NCR vulnerable communities used a researcher-made questionnaire to gauge climate impact awareness. Results indicated high perceptual concern (84% worried about floods/typhoons) but moderate attitudes toward mitigation (mean 3.4), with thematic gaps in urban resilience. The analysis recommends community-centered programs to

address eco-anxiety and foster positive perceptions (Caisip et al., 2022). The transition from environmental awareness to environmental responsibility is crucial for effective stewardship of the environment. Both Masongsong (2024) and Caisip et al. (2022) emphasize the close link between environmental awareness and youth participation in sustainability efforts. Masongsong's study showed that highly aware students actively engaged in eco-friendly activities, while Caisip et al. found that although Filipino youth were concerned about climate issues, their actions toward mitigation were moderate, revealing a gap between knowledge and practice. These findings highlight that awareness must evolve into responsible environmental behavior through strengthened education and community programs. In relation to the present study, this underscores the importance of empowering the youth of San Cirilo, Pasacao, Camarines Sur to transform awareness into action and become proactive stewards of environmental sustainability.

A correlation study by Punzalan (2020) on Filipino senior high school students revealed a "good" level of environmental awareness yet a "poor" extent of environmental practice among the participants. Despite the gap between awareness and practice, a positive correlation was found, indicating that greater awareness is associated with better environmental practices. The study recommended the implementation of environmental education programs focused on enhancing students' understanding and behavioral engagement with environmental sustainability, to bridge this awareness-practice gap and foster more consistent eco-friendly behaviors. Gapol et al., (2023) studied junior high school students at the University of San Carlos – South Campus and found a high level of environmental awareness among the participants. Their study emphasized the critical role of education during adolescence, as this stage is key in shaping individuals' environmental beliefs and practices. The findings highlight the significant influence of environmental education in forming positive environmental attitudes and sustainable behaviors early in life, which supports the need for focused educational programs in developing ecofriendly practices among youth.

Filipino youth have increasingly become vital advocates for environmental sustainability, driven by a deep awareness of the urgent challenges posed by climate change and environmental degradation. According to Palencia (2019), Filipino student leaders have a fair level of involvement in the different environment-related activities initiated by the student government. It is also evident that the student-leaders are manifesting awareness and concern towards environmental protection activities. This is a good start for the student leaders to have a better understanding of environmental problems and issues arising at present time. Barangay San Cirilo, located in Pasacao, Camarines Sur, is a coastal community where fishing serves as a major source of livelihood. Its seaside location grants residents' access to abundant marine resources, influencing their daily activities, culture, and traditions. The barangay contributes significantly to the local economy and highlights the community's deep connection with its natural surroundings. This study gives them an additional knowledge about engaging in our environment on how to be an eco-friendly and a responsible youth. Increasing community awareness and knowledge about environmental problems is the primary goal of this study.

The Plastic Bag Prohibition Ordinance of 2020 enacted by the Municipality of Pasacao, Camarines Sur, serves as a concrete policy initiative that reinforces environmental awareness and promotes eco-friendly practices among residents, business owners, and local institutions. By banning single-use plastics and Styrofoam, and encouraging the use of reusable and indigenous materials, the ordinance translates environmental consciousness into actionable behavior at the community level. This regulation not only raises awareness of the ecological consequences of plastic waste but also compels individuals and establishments to adopt sustainable alternatives in compliance with the law. Consequently, the ordinance strengthens the community's sense of environmental responsibility, aligning with the findings of the study that show a positive relationship between heightened environmental awareness and the active engagement of citizens in environmentally sustainable practices.

### *1.1 Objectives of the Study*

This study aims to assess the current level of environmental awareness among the youth in Barangay San Cirilo. Specifically, it seeks to evaluate their awareness by examining their sense of responsibility, level of

participation, and environmental behavior. It also aims to determine the extent of youth involvement in eco-friendly practices within the barangay. Furthermore, the study investigates whether there is a significant relationship between the level of environmental awareness and the practice of eco-friendly behaviors. In addition, it examines how the Plastic Bag Prohibition Ordinance of 2020 in Pasacao, Camarines Sur influences the youth's environmental awareness and their adoption of sustainable practices. Based on the findings, the study will propose policy recommendations that may help improve environmental programs and initiatives for the youth.

### *1.2 Significance of the Study*

The significance of this study lies in its potential to benefit various groups within and beyond Barangay San Cirilo. For the youth, the findings will help identify what they already know about environmental issues and where they need further knowledge to become more eco-friendly, which can guide the development of more effective environmental education programs. For barangay officials and leaders, the study can serve as a basis for promoting environmental awareness and encouraging eco-friendly practices among youth from different socio-economic backgrounds, as well as in crafting relevant programs and policies that will help make the community greener and healthier. Environmental groups and organizations may also benefit from the study, as it can provide insights into the effectiveness of current environmental awareness campaigns and offer suggestions for improvement. Lastly, this research can serve as a useful reference for future researchers, providing a foundation for more in-depth studies on environmental awareness and behavior in similar communities.

### *1.3 Theoretical Framework*

In this study, the researchers aim to understand and identify the relationship between environmental awareness on eco-friendly practices and its effect on youth behavior in Barangay San Cirilo, Pasacao, Camarines Sur. Theoretical Paradigm The diagram Figure 1, shows connections between the main theory and the supporting theories of the study through a process where environmental awareness first creates moral motivation, leading to eco-friendly actions, and over time, these actions shape a strong environmental identity.

1.3.1 Value-Belief-Norm (VBN). Stern et al., expanded by contemporary scholars in environmental psychology. Theory Extension in Pro-Environmental Youth Behavior (2020)

The Value-Belief Norm Theory explains how environmental awareness translates into pro-environmental action among young people by linking personal values, beliefs, and moral norms. The extended VBN model posits that when youth hold strong biospheric or altruistic values, they develop ecological worldviews and a sense of moral obligation to protect the environment, which in turn motivates eco-friendly behaviors. In this study, the VBN framework helps to analyze how the youth's environmental awareness—shaped by their values and beliefs—influences their participation in waste segregation, recycling, and coastal clean-up activities in Barangay San Cirilo.

1.3.2 Environmental Self-Identity Theory (van der Werff et al., 2014–2021)

This theory emphasizes the role of self-perception in sustaining pro-environmental behavior. It suggests that when individuals see themselves as "environmentally responsible," they are more likely to adopt and maintain green practices consistently. In the context of this research, Environmental Self-Identity Theory provides a lens to understand how the youth's awareness of environmental issues shapes their identity as eco-conscious individuals, which in turn reinforces their engagement in eco-friendly practices such as proper waste disposal, reducing plastic use, and supporting local sustainability initiatives.

1.3.3 Theory of Planned Behavior (Ajzen, 2021)

This theory posits that behavioral intention and ultimately behavior is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control. In relation to this study, the Theory of Planned Behavior helps explain why youth may or may not translate their environmental awareness into consistent eco-friendly actions. Factors such as social influence from peers, perceived ease or difficulty of performing green

behaviors, and access to resources (e.g., reusable bags) are examined to understand the gap between awareness and practice among the youth of Barangay San Cirilo.

## 2. Methodology

This chapter involves the methodologies which will be used by the researchers in conducting the study. This includes the research design, respondents of the study, data gathering procedure, and statistical tools.

### *2.1 Research Design*

This study used a descriptive survey method with a structured questionnaire composed of several parts. Their insights helped the researchers identify gaps in the ordinance and provided valuable input for developing a policy recommendation. Printed questionnaires were distributed to the participants to gather their responses about the topic. This method was chosen because it enables the researchers to describe the current opinions, attitudes, and practices of the youth without conducting personal interviews. The data collected from the questionnaires were analyzed and interpreted to determine the study's findings. The survey was further supported by a document analysis of the Plastic Bag Prohibition Ordinance of 2020 in Pasacao, Camarines Sur, which provided context and basis for constructing the survey questions.

### *2.2 Research Method*

This study employs a descriptive research method, specifically a descriptive-correlational approach, to assess the level of environmental awareness among the youth in Barangay San Cirilo, and to examine how this awareness influences their eco-friendly practices. The descriptive aspect of the study aims to identify and the current level of environmental awareness and the types of eco-friendly behaviors practiced by the youth. Meanwhile, the correlational aspect seeks to determine the statistical relationship between environmental awareness and the actual pro-environmental behaviors of the respondents. To compute the significance relationship between the two variables was analyzed using the Pearson Product-Moment Correlation Coefficient (Pearson r), where the r-value was interpreted based on correlation size (Table 1).

**Table 1**
*Pearson r Correlation Size*

| Correlation Range (Positive/Negative) | Strength and Direction of Correlation |
|---|---|
| 0.90 - 1.00/ -0.90 to -1.00 | Very high positive (or negative) |
| 0.70 - 0.90/ -0.70 to -0.90 | High Positive (or negative) |
| 0.50 - 0.70/ -0.50 to -0.70 | Moderate Positive (or negative) |
| 0.30 - 0.50/ -0.30 to -0.50 | Low Positive (or negative) |
| 0.00 - 0.30/ 0.00 to -0.30 | Very Low Positive (or negative) or negligible |

### *2.3 Research Locale*

Barangay San Cirilo, a coastal area in Pasacao, Camarines Sur, was chosen as the study site because it is highly prone to waste accumulation due to its proximity to bodies of water where improper waste disposal can directly affect the marine environment. As a coastal barangay, it faces greater environmental challenges related to plastic pollution and waste management. Studying this area provides a clearer understanding of how the Plastic Bag Prohibition Ordinance of 2020 influences the youth's environmental awareness and eco-friendly behavior in a community that is both vulnerable to and responsible for maintaining coastal cleanliness and sustainability.

### *2.4 Population and Sampling Design*

The target population of this study is all youth residing in Barangay San Cirilo. According to the census of barangay San Cirilo youths has a total of 1,812 individuals aged 15-30. A random sampling technique will be used to select respondents from Slovin's Test the margin of error 0.05 or 5% is 328 youths' respondents. The

questionnaire researchers restructured the questionnaire constructed. Consisted of 4 Parts 5 items each part measured using a Likert Scale by Rensis Likert in (1932). The Part 1 and Part 2 used Masongsong (2024) study among the students of Mindoro State University to ensure its alignment with the context of the youth in the Barangay. To determine the relationship between level of environmental awareness and eco-friendly practices used the formula of Pearson r to know if there is a significant relationship between the two variables. Part 3, used questionnaire the study of Alteneij et al., (2024) to determine the effects of plastic bags prohibition. The Part 4 of the questionnaire have an open-ended question, allowed respondents to share their comments and suggestions regarding the ordinances and environmental programs in Barangay San Cirilo Pasacao, Camarines Sur. Their insights will help us develop a policy and recommendation to improve the implementation of the ordinances and programs. To interpret the computed mean scores for part 1, 2 and 3, the following scale was applied: 5.00–5.99 (Strongly Agree/Aware), 4.00–4.99 (Agree/Aware), 3.00–3.99 (Neutral), 2.00– 2.99 (Disagree/Moderately Aware), and 1.00-1.99 (Strongly Disagree/ Not Aware).

### *2.5 Data Gathering Procedure*

Data will be collected through surveys which assess the youth's knowledge of environmental issues, their understanding of local environmental ordinances, and their awareness of sustainable practices. The consent form was prepared and provided to the respondents in Barangay San Cirilo to ensure that the research objectives were clearly explained and that their voluntary participation was secured. They were briefed about the study's requirements as well as the confidentiality of the information to be gathered from them as participants. A communication letter was also drafted to obtain approval from higher authorities for the distribution of the research instrument. Once approved, the researcher coordinated with the Barangay Officials for the administration of the questionnaire via Survey questionnaire. The collected data were then verified, tallied, scored, and analyzed using the weighted mean.

### *2.6 Statistical Treatment of Data*

In a descriptive-correlational approach, the following statistical tools will be used to describe the level of environmental awareness and eco-friendly practices among the youth in Barangay San Cirilo, Pasacao Camarines Sur, and to determine the relationship between these two variables:

#### 2.6.1 Frequency (f)

This will be number of respondents who choose specific response, to present how often certain responses occur in the survey, such as how many youths exhibit specific environmental behaviors or levels of awareness. It will help describe the general pattern of responses among participants.

#### 2.6.2 Mean $(\bar{x})$ (Average)

This will be used to determine the average level of environmental awareness and eco-friendly behavior based on Likert-scale items. The mean scores will provide a clearer picture of the overall tendencies of the youth toward environmental issues.

#### 2.6.3 Percentage (%)

The percentage was used to compute the number of youths who answered Yes or No regarding their awareness and insights about existing ordinances and environmental programs. It shows the proportion of respondents for each response by comparing the frequency of answers to the total number of youths surveyed.

In the correlational aspect, the results derived from these descriptive tools will be analyzed to examine whether there is a significant relationship between the level of environmental awareness and the extent of eco-friendly practices among the youth respondents.

## 3. Results and Discussion

This chapter presents the results of the study and provides an in-depth discussion of the findings based on the data gathered from the respondents. The results are organized according to the specific objectives of the study and are presented using appropriate statistical tools such as frequency count, and measures of relationship. These results reflect the level of environmental awareness of the respondents in terms of responsibility, participation, and behavior, as well as their engagement in eco-friendly practices such as waste segregation, recycling, and participation in clean-up activities. The discussion interprets the results in relation to existing literature, relevant theories, and local environmental policies, particularly the Plastic Bag Prohibition Ordinance of 2020 of Pasacao, Camarines Sur. This section explains the implications of the findings, identifies emerging patterns and trends, and highlights the relationship between environmental awareness and eco-friendly practices among the youth. Through this analysis, the chapter provides a clearer understanding of how awareness and local environmental initiatives influence sustainable behavior, serving as a basis for conclusions and recommendations. Barangay San Cirilo currently shows a moderate level of environmental awareness among its residents. While some youths are knowledgeable and actively practice environmentally friendly behaviors, others still lack awareness and understanding of environmental issues. This difference highlights the need for stronger education and community programs to ensure that all young people become more informed and responsible in caring for the environment.

### *3.1 Current level of environmental awareness of the youth in Barangay San Cirilo, Pasacao, Camarines Sur along: a. responsibility, b. participation and c. behavior.*

This part of the study displays each statement's weighted mean and their equivalent verbal interpretation. As shown in table 2, the youth of Barangay San Cirilo have a high level of environmental awareness, responsibility, participation and behavior. In 328 respondents of youth in Barangay San Cirilo, they gave a high rating response on each question. The highest-ranked item is preserving and conserving plants and trees 4.48, Rank 1, showing that respondents strongly recognize and support vegetation conservation as a primary environmental responsibility. Lower-ranked yet still positively rated items involve understanding the importance of greenhouse gases from human activities as the main cause of climate change 4.28, Rank 10. Despite being the lowest, these scores remain within the Aware range, suggesting that overall environmental awareness and responsibility among the youth are high, with stronger emphasis on direct, community-based and visible environmental actions. Questions 7 and 9 keeping the shoreline clean as well as recognizing that individual actions affect coastal cleanliness both mean 4.39, Rank 4.5, which emphasize a strong sense of accountability toward coastal care.

The youth respondents mostly aware in preservation and conservation of plants and trees, that had the highest mean score of 4.48 it means the rank 1. According to Punzalan et al., (2020), Filipino youth already have a relatively high environmental awareness, which can underpin their concern for preserving nature, including plants and trees. However, the survey also reveals a significant concern, as the greenhouse gases from human activities are the most common cause of climate change received at the lowest rank among the respondents. The overall mean of 4.37, indicated a high level of environmental awareness, responsibility, participation and behavior. This means the young people in Barangay San Cirilo generally know about and care about environmental issues.

While the youth in Barangay San Cirilo demonstrate a strong commitment to preserving plants and trees, the fact that "greenhouse gases from human activities" ranked lowest in their perceptions is deeply concerning. This gap reflects broader patterns seen among Filipino youth although many express high concerns for climate change, their understanding of its underlying drivers remains limited. For example, a study among senior high students in Cavite, Philippines found only moderate to high awareness of climate change in general, but awareness of specific causes such as GHG emissions was less consistently understood (Malay, 2019). Targeted education and engagement strategies are urgently needed to deepen young people's awareness and sense of agency around greenhouse gas emissions. According to Lu (2024), youth-led awareness campaigns in schools and communities can be a powerful force for change, by combining climate literacy with concrete mitigation actions like tree-

planting and waste segregation. Climate landscape reports underscore that while Filipino youth generally know about climate change, their knowledge "is not deep enough," especially when it comes to low-carbon development and long-term solutions (Ortega et al., 2017). In relation to the Value-Belief-Norm (VBN) Theory, this high level of awareness reflects the presence of underlying environmental values and beliefs that shape the youths' sense of responsibility toward nature. According to the theory, when individuals recognize environmental consequences and feel accountable for them, they are more likely to develop personal norms that guide pro-environmental behavior. Therefore, the elevated awareness among the youth of Barangay San Cirilo suggests a solid foundation for fostering consistent and meaningful participation in environmental initiatives.

**Table 2**
*Mean Perception in terms of Environmental Awareness*

| Questions | Mean | Rank | Description |
|---|---|---|---|
| Preserve and conserve plants and trees. | 4.48 | 1 | Aware |
| Believe that youth involvement is essential for successful environmental programs in the barangay. | 4.44 | 2 | Aware |
| Paper, plastic, and other materials that are burned can contaminate the air. | 4.31 | 8 | Aware |
| Natural habitats decrease in number because of extreme disasters. | 4.35 | 6 | Aware |
| Greenhouse gases from human activities are the most common cause of climate change. | 4.28 | 10 | Aware |
| I believe it is my responsibility to help protect the coastal environment of Barangay San Cirilo. | 4.41 | 3 | Aware |
| I feel responsible for keeping our shoreline clean and free from trash. | 4.39 | 4.5 | Aware |
| I understand the importance of protecting marine life in our Barangay. | 4.37 | 9 | Aware |
| I know that my actions can affect the cleanliness of our coastal area. | 4.39 | 4.5 | Aware |
| I remind others to take care of the environment when I see harmful actions. | 4.32 | 7 | Aware |

*3.2 Current level of participation of the youth in Bar*angay San Cirilo in various eco-friendly practices along: a. waste segregation b. recycling c. clean-up activities.*

The survey results on eco-friendly practices specifically waste segregation, recycling, and clean-up activities revealed the current level of participation of youth in Barangay San Cirilo. As shown in table 3, the practice with the highest level of participation was Dispose of waste products properly, rank 1 with a mean score of 4.43. This indicates that proper waste disposal is the most consistently observed behavior among the youth, reflecting a strong foundational habit in responsible waste management. The lowest-ranked practice was "Support and promote the use of eco-friendly alternatives (e.g., reusable bags, bottles, bamboo straws) instead of single-use plastics, with a mean of 4.20.

According to Otieno (2025), waste disposal is often the most visible and accessible environmental activity for young people. These practices typically require fewer resources and skills compared to other eco-friendly actions, making it easier for you to engage regularly. Proper waste disposal is a foundation habit linked with environmental awareness discipline, and community responsibility, which may youth are taught early through school, family, and local initiatives. Environmentally responsible behaviors are more likely to occur when they are convenient and accessible. Youth in Barangay San Cirilo are likely influenced by community awareness and local government programs. The Philippine Ecological Solid Waste Management Act of 2000 (RA 9003) mandates Barangay-level campaigns on proper waste segregation and disposal. Participation in school- and community-based initiatives increases awareness and reinforces the behavior, making proper waste disposal a normative and expected practice (Department of Environment and Natural Resources [DENR], 2022).

Support and promote the use of eco-friendly alternatives (e.g., reusable bags, bottles, bamboo straws) instead of single-use plastics, obtained the lowest mean score among all indicators. Although still interpreted as "Agree," its relatively lower rating suggests that the youth in Barangay San Cirilo face more challenges in consistently supporting and promoting eco-friendly alternatives compared to other environmental actions. According to Dela Luna et al. (2025), one contributing factor is the limited accessibility and higher cost of reusable and sustainable products. Studies have shown that many Filipino households struggle to shift toward eco-friendly options because such items are often more expensive and not readily available in rural communities. This aligns with the context of Barangay San Cirilo, where youth may not have regular access to stores selling bamboo straws, reusable bags, or sustainable alternatives, making adoption more difficult.

According to Manalo et al. (2022), Filipino communities have a longstanding habitual reliance on single-use plastics, such as plastic bags and sachets, due to their convenience and widespread availability. Research indicates that this habitual use creates a barrier to the adoption of sustainable alternatives, as people tend to default to what is familiar and easily accessible. Youth in Barangay San Cirilo may therefore agree with the idea of eco-friendly alternatives but find it challenging to practice and promote them regularly. Supporting and promoting eco-friendly products requires a greater degree of behavior change than other environmental actions measured in the survey. According to the Theory of Planned Behavior, individuals may possess positive environmental attitudes yet find it challenging to translate these into consistent behaviors, particularly when the action requires sustained effort or lifestyle adjustments (Antonio et al., 2022). This engagement may be explained through Environmental Self-Identity Theory (van derf Werf et al., 2014-2021), which suggests that individuals are more likely to participate in pro-environmental actions when they see themselves as environmentally responsible. In this case, the lack of participation among some youth indicates that their environmental self-identity is not yet fully developed, highlighting the need for initiatives that can strengthen their sense of responsibility and connection to environmental protection.

**Table 3**
*Mean perception in terms of Eco-friendly Practices*

| Questions | Mean | Rank | Description |
|---|---|---|---|
| Dispose of waste products properly. | 4.43 | 1 | Agree |
| Actively participate in community clean-up drives to help maintain the cleanliness. | 4.29 | 4 | Agree |
| Practice waste segregation and proper disposal to reduce pollution in our community | 4.28 | 5 | Agree |
| Support and promote the use of eco-friendly alternatives (e.g., reusable bags, bottles, bamboo straws). instead of single-use plastics. | 4.20 | 10 | Agree |
| Participate in or advocate for coastal protection activities such as mangrove planting and marine conservation. | 4.40 | 2 | Agree |
| When traveling short distances, I walk instead of riding in a vehicle. | 4.24 | 9 | Agree |
| I avoid the use of plastic and Styrofoam, which cause harm not only to environment but also to human health. | 4.25 | 8 | Agree |
| I avoid throwing garbage anywhere. | 4.30 | 3 | Agree |
| I recycled and reuse nonbiodegradable materials to lessen solid wastes. | 4.26 | 6 | Agree |
| I use reusable water bottles or tumblers instead of buying bottled water in the canteen or stores. | 4.26 | 6 | Agree |

*3.3 Significant relationship between the level of environmental awareness and the eco-friendly practices of the youth in Barangay San Cirilo, Pasacao, Camarines Sur.*

Based on the results presented in table 4. The relationship between the environmental awareness and the eco-friendly practices of the youth in Barangay San Cirilo shows a very low positive correlation. The computed correlation coefficient R Value is 0.090, with a P Value of 0.104. Since the P Value is greater than the 0.05 significance level, this indicates that the relationship is not statistically significant. Because a young person is aware of environmental issues does not necessarily mean they will consistently engage in actions like waste segregation, recycling, or joining clean-up drives. This gap between knowledge and action is a common challenge noted in environmental studies. Although the relationship is very low positive, it highlights a clear trend that awareness can influence action. The overall mean scores support this, with environmental awareness scoring 4.37 (Aware) and eco-friendly practices 4.29 (Aware), showing that the youth not only understand environmental responsibilities but are also generally putting this knowledge into practice in their daily lives. In other words, the more informed and conscious young people are about environmental issues, the more likely they are to act responsibly toward the environment. This emphasizes the value of educational programs, community initiatives, and awareness campaigns that engage youth in practical, hands-on environmental activities, helping to foster sustainable habits from a young age.

A correlation study by Punzalan (2020) on Filipino senior high school students similarly found a "good" level of environmental awareness yet a "poor" extent of environmental practice, highlighting a persistent awareness-behavior gap among Filipino youth. This disconnect can be attributed to various barriers that prevent the translation of awareness into action. As suggested by Antonio et al. (2022), even with positive environmental attitudes, individuals may find it challenging to adopt consistent eco-friendly behaviors due to factors like convenience, lack of resources, or the absence of strong social or community support systems. According to Dela Cruz et al. (2019), although Filipino students showed moderate to high environmental awareness, this did not always lead to active conservation behaviors. They highlighted that factors like social norms, facility access, and personal motivation play key roles, showing that knowledge alone is not enough to change behavior. According to Lumawag et al. (2019), Filipino youth have good environmental knowledge, but their participation in ecofriendly practices like waste segregation and recycling is inconsistent. The study highlights a gap between awareness and action, influenced by social, cultural, and infrastructural factors.

Theory of Planned Behavior (Ajzen, 2021), which states that behavior is shaped by perceived behavioral control (belief in one's ability to act) and subjective norms (social pressure from others) (Antonio et al., 2022). In Barangay San Cirilo, the youth may lack confidence in performing eco-friendly actions due to limited access to reusable products or proper waste facilities, and they may not feel enough social encouragement from their community. Similarly, the Value-Belief-Norm Theory (Stern et al., 2020) explains that pro-environmental action follows a chain from values to personal responsibility to moral obligation.

**Table 4**

*Significance Relationship Between Level of Environmental Awareness and Eco-Friendly Practices*

| Environmental Awareness | Eco-Friendly Practices | R Value | P Value | Remarks |
|---|---|---|---|---|
| Participation, Responsibility, and Behavior | Waste Segregation, Recycling, and Clean-Up Activities | 0.090 | 0.104 | Very low Positive correlation |

*3.4 Plastic Bag Prohibition Ordinance of 2020 in Pasacao, Camarines Sur*

The current survey on the Plastic Bag Prohibition Ordinance of 2020 in Pasacao, Camarines Sur provides valuable insights into how this initiative is shaping the environmental awareness and eco-friendly behaviors of the youth. It also highlights ongoing challenges related to community compliance and waste management strategies. Rank 1, with the highest mean of 4.45, is the statement. I have changed my habits because of the ordinance (e.g.,

reusing bags, using paper or cloth alternatives), indicating that the policy has successfully inspired tangible behavioral shifts toward sustainability. The lowest-rated response was Question 2, I understand the goals of the plastic bag ban in our community, which scored a mean of 3.70 and was rated as Neutral. This suggests that while awareness of the ordinance is present, many respondents lack a clear understanding of its specific objectives such as reducing plastic pollution, protecting marine ecosystems, and improving waste management. This knowledge gap could hinder compliance and weaken the long-term effectiveness of the ordinance.

Rank 9, with a mean 3.74. I believe reducing plastic bag use is important for protecting the environment. Though still positive, shows weaker internalization of the environmental rationale this also interpreted as neutral. The mean scores of 3.74 and 3.70 fall under the "Neutral" (3.00–3.99) range, indicating that respondents neither agree nor disagree. While the scores are relatively high, they still do not reach the "Agree" level, suggesting only moderate and inconsistent awareness or participation. Overall, this reflects some positive tendencies but also uncertainty, highlighting the need for improved programs and initiatives to achieve stronger engagement. Youth gave a highest rating in question 10: "I have changed my habits because of the ordinance (e.g., reusing bags, using paper or cloth alternatives)", which received a mean score of 4.45. This high score reflects a significant behavioral shift among respondents, showing that the ordinance has successfully influenced young people to adopt more sustainable practices. By reusing bags and switching to non-plastic alternatives, the youth are not only complying with the law but also actively contributing to reducing plastic waste. This change is more than just individual it represents a growing cultural movement toward sustainable consumerism in the community. Such positive behavior aligns with national campaigns in the Philippines that aim to reduce single-use plastics and promote eco-friendly alternatives (Climate Change Commission, 2021).

To address this, local government units (LGUs) and environmental advocates must strengthen educational outreach and communication strategies. Clear, accessible campaigns explaining the ordinance's goals and benefits can help bridge this gap and encourage deeper community participation (GAIA Philippines, 2020). The relationship between Pasacao's 2020 plastic bag prohibition ordinance and youth environmental practices in Barangay San Cirilo is explained by the Value-Belief-Norm (VBN) Theory (Stern et al., 1999), which links biospheric values to awareness of plastic pollution's harm, sense of responsibility, and moral norms driving action (Jia & Liang, 2025). The Theory of Planned Behavior (Ajzen, 1991) further notes that compliance depends on social norms and access to reusable alternatives (Shahrabani, 2025). While youth show strong environmental values, gaps in alternative access and inconsistent enforcement similar to the 2020 Tarlac ban (Crowley, 2023) hinder translation of awareness into sustained practices, supporting the need for targeted policy improvements.

**Table 5**

*Mean perception in terms of Plastic Bag Prohibition Ordinance of 2020*

| Questions | Mean | Rank | Interpretation |
|---|---|---|---|
| I am aware that there is a plastic bag prohibition ordinance implemented in Pasacao since 2020. | 4.23 | 7 | Agree/Aware |
| I understand the goals of the plastic bag ban in our community. | 3.70 | 10 | Neutral |
| I have seen or read information (e.g., posters, social media, barangay announcements) about the ordinance. | 4.22 | 8 | Agree/Aware |
| I support the plastic bag prohibition ordinance in Pasacao. | 4.24 | 6 | Agree/Aware |
| I believe reducing plastic bag use is important for protecting the environment. | 3.74 | 9 | Neutral |
| I avoid using plastic bags when shopping. | 4.40 | 2 | Agree/Aware |
| I bring reusable bags when I go to stores or markets. | 4.32 | 5 | Agree/Aware |
| I try to reduce my plastic consumption whenever possible. | 4.39 | 3 | Agree/Aware |
| I encourage others to stop using single-use plastic bags | 4.36 | 4 | Agree/Aware |
| I have changed my habits because of the ordinance (e.g., reusing bags, using paper or cloth alternatives). | 4.45 | 1 | Agree/Aware |

*3.5 Policy Recommendation*

This policy recommendation is based on the results of the study, particularly the three survey items on eco-friendly practices that received low mean scores. These findings show that there are gaps in the environmental behaviors of the youth in Barangay San Cirilo. To address these concerns, the proposed policies aim to promote sustainable practices, reduce plastic waste, and encourage eco-friendly transportation through practical and youth-centered programs. The overall goal is to develop environmentally responsible behavior among the youth while strengthening community participation. To achieve this, Barangay San Cirilo, together with the Sangguniang Kabataan (SK), may implement key programs such as the "Bring Your Own Eco Kit" policy, which encourages the use of reusable materials like bags, bottles, and bamboo straws to minimize plastic waste. In addition, the "Bike-for-Hire & Learn" program can be introduced to promote eco-friendly transportation by providing free bicycle rentals, cycling lessons, and safety workshops. The barangay may also establish clean-up and recycling projects, including plastic and Styrofoam collection points, reward systems for collected waste, and upcycling contests to actively involve the youth in waste management and environmental protection. The success of these policies depends on strong collaboration among barangay officials, SK members, schools, and community stakeholders. Through proper implementation, regular monitoring, and continuous awareness campaigns, these initiatives are expected to increase youth participation in environmental programs, reduce plastic waste in the community, and improve eco-friendly habits. In the long run, these efforts will help promote a cleaner environment and encourage sustainable and active lifestyles among the youth of Barangay San Cirilo.

## 4. Summary, Findings, Conclusions, and Recommendations

***Summary -*** The study shows that the youth of Barangay San Cirilo have a high level of environmental awareness and are generally active in protecting the environment. They show strong responsibility and participation, especially in activities like preserving plants and trees and practicing proper waste disposal. However, many of them still have limited understanding of more complex environmental issues such as climate change and greenhouse gases. The findings also indicate that although the youth are highly aware of environmental issues, there is no significant relationship between their level of environmental awareness and their actual eco-friendly practices. This means that being knowledgeable about environmental problems does not always result in consistent environmentally friendly actions. While they know what is right, factors such as convenience, cost, and availability may influence their behavior. The Plastic Bag Prohibition Ordinance of 2020 has helped encourage positive behavior changes, such as reusing bags and reducing plastic use. Even so, many youths do not fully understand the goals of the ordinance. Overall, the study highlights that awareness alone is not enough; stronger guidance, clearer information, and easier access to eco-friendly alternatives are needed to help the youth turn their environmental knowledge into regular and sustainable practices.

***Findings -*** The study shows that the youth of Barangay San Cirilo have a high level of environmental awareness, especially in conserving plants and trees, while their awareness of greenhouse gases is still positive but slightly lower. They also demonstrate strong participation in eco-friendly practices, particularly in proper waste disposal, which gained a high mean score of 4.43; however, their involvement in promoting eco-friendly alternatives like reusable bags and bottles is relatively lower. Despite having high environmental awareness (mean of 4.37) and eco-friendly practices (mean of 4.29), the study found no significant relationship between the two, suggesting that knowledge does not always lead to consistent action. Additionally, the ordinance has helped influence positive behavior among the youth, as shown by a high mean score of 4.45 in adopting practices like reusing bags, but their understanding of the ordinance's specific goals remains only moderate, with a mean score of 3.70.

***Conclusions -*** While the youth demonstrate a strong willingness to protect nature, particularly in preserving plants and trees, there is still a noticeable gap in their understanding of more complex issues such as greenhouse gases and their role in climate change. The youth of Barangay San Cirilo are actively engaged in environmental stewardship, yet there remains an opportunity to further encourage and educate them on the importance of adopting

sustainable alternatives to improve their overall environmental impact. This awareness-practice gap indicates that although they possess strong environmental knowledge, factors such as cost, availability, and convenience often prevent them from consistently choosing eco-friendly options, especially sustainable products. Moreover, while the policy has been effective in promoting sustainable practices, a critical knowledge gap persists, as many youths do not fully understand its environmental objectives, which may limit long-term compliance and reduce the overall effectiveness of the ordinance.

***Recommendations -*** To address the identified gaps and further enhance environmental awareness and eco-friendly practices among the youth of Barangay San Cirilo, it is recommended to implement targeted educational initiatives, such as interactive workshops on climate change, and to integrate these concepts into existing environmental programs to deepen understanding and encourage action. Barangay leaders and youth organizations should also introduce hands-on activities, including eco-challenge programs with incentives, to strengthen participation and promote the use of sustainable products and practices. Moreover, the Barangay Council is encouraged to bridge the gap between awareness and actual behavior by making eco-friendly choices more accessible and affordable, while launching practical campaigns that motivate youth to turn their knowledge into consistent daily habits. Lastly, to maximize the effectiveness of the Plastic Bag Prohibition Ordinance of 2020, local authorities should enhance information dissemination through clear and accessible materials and actively involve the youth in advocacy initiatives to ensure better understanding and more meaningful participation.

***Implications for practitioners/teachers*** - The findings of the study suggest that teachers play an important role in improving students' environmental awareness and eco-friendly practices. Teachers can use the results as a guide to strengthen lessons about environmental protection by including more practical activities such as waste segregation, tree planting, and recycling projects. They may also focus more on topics where students showed lower awareness. By integrating environmental concepts into different subjects and encouraging active participation, teachers can help students develop responsible habits and positive attitudes toward the environment.

***Implications for Students -*** For students, the study highlights the need to improve their awareness and daily eco-friendly practices. The results can help them understand which behaviors they are already doing well and which areas need improvement, such as reducing plastic use or proper waste disposal. Students are encouraged to become more active in protecting the environment by practicing simple actions at home, in school, and in the community. This also helps them realize their role as young individuals in creating a cleaner and safer environment.

***Implications for Schools*** - The study implies that schools should strengthen their environmental programs and policies based on the needs identified in the research. Schools can use the findings as a basis for creating or improving policies such as waste management systems, environmental campaigns, and student-led activities. They may also provide facilities like recycling bins and organize regular environmental events to support eco-friendly practices. By doing this, schools can create a supportive environment that encourages students and teachers to work together in promoting environmental sustainability.

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